

FEDERAL EXPENDITURE POLICY FOR ECONOMIC GROWTH AND STABILITY

HEARINGS
BEFORE THE
SUBCOMMITTEE ON FISCAL POLICY
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JOINT ECONOMIC COMMITTEE
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FEDERAL EXPENDITURE POLICY FOR ECONOMIC GROWTH AND STABILITY

MONDAY, NOVEMBER 18, 1957

CONGRESS OF THE UNITED STATES,
SUBCOMMITTEE ON FISCAL POLICY OF THE
JOINT ECONOMIC COMMITTEE,
Washington, D. C.

The subcommittee met at 10 a. m., pursuant to notice, in the old Supreme Court chamber of the Capitol Building, Representative Wilbur D. Mills (chairman of the subcommittee) presiding.

Present: Representative Wilbur D. Mills; Representative Thomas B. Curtis; Representative Richard Bolling; and Senator Ralph E. Flanders.

Also present; Norman B. Ture, staff economist; John W. Lehman, acting executive director.

Representative MILLS. The subcommittee will please come to order.

This study of Federal expenditure policy for economic growth and stability has been undertaken by the Subcommittee on Fiscal Policy pursuant to the suggestion by the Joint Economic Committee in its report to Congress last February.

We are seeking economic facts and analysis on the basis of which broad guidelines can be developed to assist in the formulation of future Federal expenditure policy. The Joint Economic Committee and its subcommittees, under the mandate of the Employment Act of 1946, must be concerned primarily in all their inquiries with Government policies directed toward the Nation's basic economic policy objective—a high rate of growth in our productive capacity with minimum fluctuations in the rate of resource use and in the general price level.

The subcommittee's principal inquiry throughout these hearings, therefore, will be directed toward the effectiveness of Federal Government expenditure policies in contributing to the attainment of this objective.

We recognize, of course, that many other considerations enter into the determination of the scope and character of Federal Government activity, and that in a great many instances such considerations must be ruling. Nevertheless, we cannot ignore the economic consequences of any Government spending program if we are to be assured that Government will most greatly enhance or least interfere with the conditions requisite to economic progress.

We are concerned in this study, therefore, with a number of specific, current Federal spending programs, as well as with economic principles which are basic to determining the proper role of government in the setting of a private enterprise economy.

We hope that by approaching these programs in the context of their impact on economic growth and stability, rather than their more immediate objectives, we may provide some fresh insights and make possible more effective appraisal of future proposals for revision of Federal spending programs.

As all of us know, a great many Government programs originated many years ago. Some of these have been modified and adapted to changing circumstances and have become increasingly important in promoting the overall strength of the economy. Others may well have become inflexible and rigid, constituting drains on resources which could be used more effectively otherwise.

It is our hope that by approaching Federal spending from the point of view of the Employment Act objectives, this study may suggest opportunities either for reducing the level of Federal outlays or for changing their composition in ways which will better contribute to progress in private sectors of the economy.

In 1955 the Tax Policy Subcommittee of the Joint Economic Committee conducted a study of Federal tax policy for economic growth and stability. That subcommittee's study and report, I believe, have been of material assistance throughout the Federal Government in developing and evaluating recommendations for revision and improvement of the Federal tax system. I think the entire subcommittee shares the view that our current study holds great promise for equally valuable contributions.

Earlier this year 97 experts from universities, business, research groups, and government were requested to prepare papers on a wide range of topics dealing with major issues affecting Federal spending programs. These papers were printed in a compendium released on November 8.

Today we begin hearings during which contributors to the compendium will have an opportunity to develop more fully the problems and issues raised in their papers through interrogation by the subcommittee and discussion with fellow contributors.

We will proceed in these hearings in the order in which the papers appear in the compendium. At the start of each session, each panelist will be given 5 minutes in which to summarize his paper and we will hear from each panelist without interruption.

Upon completion of the opening statements, the subcommittee will question the panelists for the balance of the session. I hope that this part of the session can be informal and that all members of the panel will participate, commenting on the papers presented by other panelists and on the subcommittee members' questions.

Our first witness this morning is Prof. Charles E. Lindblom, department of economics, Yale University.

Professor Lindblom, you are recognized for 5 minutes.

STATEMENT OF CHARLES E. LINDBLOM, ASSOCIATE PROFESSOR OF ECONOMICS, YALE UNIVERSITY

Mr. LINDBLOM. I want to talk about expenditures on community amenities.

In the late 1920's, the Federal Government spent only \$1 out of every \$5 of public expenditures in the United States, State and local governments spending \$4 out of every \$5. With the great depression

and World War II both throwing responsibilities upon government that only the Federal Government could shoulder, the earlier situation was reversed, with the Federal Government spending 4 out of 5 public expenditures dollars.

But a striking feature of the period since 1946 is that, despite continued high Federal expenditures, State and local governments had risen by 1956 to about 40 percent of public expenditures and are still rising.

The significance of the upsurge is to be found in the character of State and local expenditures, as contrasted to Federal. What has been mushrooming is expenditures on community amenities.

For the Federal Government, the significance of these burgeoning demands for amenities lies in turn in the possibility that the Federal Government will either be called upon to meet some of the new demands directly, or to come to the aid of the States and localities with grants, or to reduce Federal taxes.

Where did the new demands come from?

In America's early years, public economic policy was preoccupied with the economic security of a poor and precarious society. In the very earliest colonial ventures, mere survival overrode any other policy objective. At a second stage, public economic policy was tailored to economic development to achieve the remarkable rise in personal income that marked the 19th century.

But again in the 20th century, policy became preoccupied with economic security—this time not the insecurities of a new continent but the economic insecurities of a complex, unstable, depression-prone economic system. It is quite possible that we are now moving for the second time into a period of expansion and development as a fourth stage in the sequence.

Common hypotheses explaining rising expenditures on amenities are:

1. Rapid growth and redistribution of population.
2. Growing social interdependence.
3. Rising income and wealth.
4. New leisure.
5. The end of poverty, as some people claim.

DECLINING DEBATE AND EMERGING AGREEMENT ON THE ROLE OF GOVERNMENT

A further historical change perhaps outweighs all the above; the slow but unmistakable decline of the debate over the proper functions of government and emerging agreement that government is an instrument to be used fairly freely in the pursuit of a wide variety of goals. It is as though we had finally decided to free a giant.

The emergent agreement can be described by contrasting it with the debate it supersedes. It was a debate over the role of government in which policy alternatives were identified with the grand alternatives of capitalism and socialism and in which the dominant view was that only by holding fast to private enterprise free from government domination could the evils of socialism be avoided.

One still hears debate carried on politically in this language, but I am suggesting that it is declining. In the last presidential campaign, the Democrats' poverty of campaign issues revealed the degree

to which both major parties agreed on the role of government. It was no longer possible, as it had been in New and Fair Deal days, for the Democrats to find challenging functions for government that would separate the two parties.

More striking evidence that we are all coming to agree on the new larger role for government is the Eisenhower budget, compelling evidence that public budgets cannot be significantly reduced. The cries of anguish that greeted its announcement were loud, not because anyone believed the budget could be much reduced, but because the illusion that Republicans could cut the budget where Democrats would not, was finally, bitterly, sadly, embarrassingly destroyed.

What in our history put an end to the old debate?

First, one cannot indefinitely debate irrelevancies without discovering that one is doing so.

Second, our experience since the late 1930's, with fiscal and monetary controls designed to maintain full employment—and, specifically, their relative success—has vastly increased our confidence in the instruments of government.

Third, our wartime successes in government direction of the economy have given us, not a taste for the same diet in time of peace, but, again, a greater confidence that we can employ government far beyond the capacities we used to expect of it.

Fourth, we have come to understand government and society better than before; and we treat the question of governmental functions as a subject for research and discussion rather than for simple-minded moral pronouncements, which is what we used to do.

Fifth, we agree on a new large role for government because conspicuous private consumption is less admired than formerly.

Sixth, our traditional concern over the irrationality of much government expenditure is subsiding in the face of irrational private consumption that flows from our phenomenally high incomes.

Representative MILLS. Thank you very much.

Our next panelist is Prof. Robert T. Patterson, associate professor of public finance, Claremont Men's College and the Claremont Graduate School.

STATEMENT OF ROBERT T. PATTERSON, ASSOCIATE PROFESSOR OF PUBLIC FINANCE, CLAREMONT MEN'S COLLEGE AND THE CLAREMONT GRADUATE SCHOOL

Mr. PATTERSON. Mr. Chairman and gentlemen, I want to make a broad statement on past governmental expenditures and their consequences. Because of the time limit, this is a rather truncated statement.

The following is a résumé of material presented in my paper, Federal Expenditure, Economic Growth, and Instability, which is a part of the compendium prepared in advance of these hearings. The assertions made here are supported in that paper by statistical data and an analytical interpretation of them.

If we bear in mind the inherently close and complex relationship of Government spending, taxation, borrowing, and debt management, as well as monetary policy, it is appropriate to separate out and focus attention upon any one of these parts of the fiscal-monetary pattern.

Here we are particularly concerned with Federal expenditure policy in relation to economic growth and stability.

An earlier study, made in the same manner as the one we are engaged in, dealt with taxation. Attention is called to basic observations made therein with respect to the nature causes, and relationship of economic growth and stability, which are pertinent also to a study of Government expenditure.

Here we are concerned not merely with the changes in Federal expenditure that have occurred but with the variations in other economic phenomena which are associated with Federal financial policies, in order to determine whether the Government has been doing, financially, what it ought to do, and leaving undone what it ought not to.

The interrelationship of Federal spending and economic activity has been continually of major significance only since 1933. Until then Federal expenditure—and taxation, borrowing, and debt management—were often incidental and random influences, although there were times when Federal finance dominated the economy. From the beginning of the Republic through the first third of the twentieth century there was never any large, planned expenditure program intended to promote economic growth. Yet, during that period there was an astonishing increase in real national wealth and income.

It was not due to any single cause, but to a complexity of causes. Planned Federal spending for broad economic effects, however, was not one of them.

Along with the remarkable growth of wealth and income there was marked economic instability. Prices rose and fell; booms, panics, and depressions ran their course; many fortunes were made which waves of bankruptcy wiped out. There were periods of mass unemployment, with attendant misery and despair.

The purchasing power of specie and paper currency varied with the phases of the business cycle; and at times when the currency was irredeemable its value depreciated drastically, though in each instance redeemability finally restored it. The credit of the Government, too, fluctuated, sometimes markedly and adversely, when the requirements of war or of unwise peacetime fiscal and monetary policies threatened the future value of the Government's obligations or cast a shadow upon its integrity.

Instabilities such as these were concomitants of great growth. Their various effects upon it, however, cannot all be separated out. Some of them would seem to have been far from conducive to long-run growth. Others, however, may have been essential to it. The panics and depressions—drastic perhaps in proportion to the debris of financial excesses, unwise investment, and false values which they cleared away—may well have been a necessary part of long-run real growth, though during them those who suffered would have found this hard to believe.

With respect to spending at all levels of government, between 1890 and 1933 Federal expenditure—except during war—was 25 to 30 percent of the total, local expenditure was 50 to 60 percent, and State expenditure 10 to 20 percent. In recent years Federal expenditure has ranged between 63 and 70 percent of the total.

The remarkable growth of Federal spending since 1910 can be briefly shown, in billions of dollars, as follows:

1910-----	0.7	1945-----	98.4
1920-----	6.4	1948-----	33.1
1930-----	3.4	1953-----	74.3
1940-----	9.1	1957-----	69.3

In recent years spending for defense has averaged more than 60 percent of all Federal expenditure. For the fiscal year 1957 the 4 major classes of Federal expenditure were, in billions of dollars:

Major national security-----	43.3
Interest-----	7.3
Veterans' services and benefits-----	4.8
Agriculture and agricultural resources-----	4.7

The relationship of Government spending to gross national product—the total national output of goods and services at market prices—is of significance, but it must be examined with careful discrimination. Total and per capita gross national product expressed in constant (1947) dollars has changed since 1929 in the following way:

[In billions of dollars]

Year	Total	Per capita
1929-----	149.3	\$1,225
1933-----	103.7	825
1945-----	263.1	1,880
1956-----	332.0	1,973

If we could reduce our defense program, eliminate waste and loss, and prevent further depreciation in the purchasing power of the dollar, the figures on gross national product would certainly decline, assuming no compensatory increase in the volume and value of goods and services produced for civilian use.

Under such conditions it would surely be erroneous to say that national economic wellbeing had declined along with the decline in gross national product. Economic growth, although indicated by the rise in gross national product as expressed in constant dollars, was probably not as great as the figures suggest.

The problem of the Federal debt is of major importance. Although it is first of all a fiscal matter, it ties in closely with monetary policy. Suffice it to say here that a very large part of a huge debt is payable on demand and within a short period of time. Under certain circumstances much of the debt could be converted into currency, bank deposits, and bank reserves. The present unfunded debt has a tremendous inflationary potential. It is, of course, the result of a long period of unfunded deficit expenditures.

Since the United States entered World War II, the only important element in our economy that has shown stability is employment (or unemployment). War and defense expenditures have had much to do with this. But when wars ended or defense expenditures were reduced, consumer and business spending and increased outlays by State and local governments took up much of the slack. In this period the marked increase in all debt, public and private, was an important sustaining factor in spending and in the high level of employment.

The point to be made here is that the Federal spending and the kind of financing that took place brought and helped to sustain relatively

full employment, but it was accompanied by a depreciation in the value of the dollar to less than half of what it had been at the beginning of the period. Probably well over \$500 billion of purchasing power of creditors has been taken from them by the inflationary rise in prices.

CONCLUSION

Granting that there has been substantial economic growth in the past two decades, even though in actuality it was not as great in amount as the adjusted gross national product figures indicate, it is valid to question whether the real growth of wealth and income would not have been greater under some other set of conditions of Federal expenditure, and whether the conditions under which the growth has occurred have been such that some of their effect will carry over to impede growth in the future.

Further study is needed to determine whether, in an unregimented society, we can have maximum long-run growth without the cleansing function of the downward phases of the business cycle; however, they may be modifiable by sound policies and practices and by financial self-restraint on the part of both the Government and the people. Expectation that markets will go down as well as up is itself, a powerful restraint upon financial excesses.

The continual desirability of full employment has been emphasized under the assumption that it is essential to stability and long-run growth. This assumption must now be questioned.

Full employment may be a wholesome phenomenon or an unwholesome one, depending upon many circumstances. How that level of employment is reached and maintained is an important consideration. Perhaps we should look upon full employment as a worthwhile incidental goal to be sought in every sound way, but when reached, to be regarded as a signal for great caution.

Because at times in the past there have been great suffering and loss due to unemployment, it does not necessarily follow that continual full employment is the measure most conducive to long-run growth. The prospect, in the coming decades, of great employment transitions and fewer working hours for almost everyone, due to automation and other technological advances, should help to reconcile us to some unemployment as well as to governmental aid to those on whom the brunt of it will fall.

The real goal is maximum long-run growth. How much long-run stability we can expect in a dynamic, growing economy is still a question, but we are now seeing evidence that full employment induced by inflationary Government spending and borrowing is not the way to achieve it.

Under the conditions that have developed, the prospect for any real stability is small compared with the likelihood of either severe deflation or marked further inflation, an alternative being rigid, overall governmental control of the economy.

Another, and far more desirable, alternative is the development and application of fiscal and monetary policies of a kind that will prevent severe deflation while requiring the funding of near-money forms of public debt and encouraging public and private thrift and a high level of business investment. Whether all this can be done

remains to be seen. It would be a delicate long-term operation which would challenge the deepest insight and highest capacity of the ablest economists in the Nation.

Representative MILLS. The next panelist is Prof. Arnold M. Soloway.

STATEMENT OF ARNOLD M. SOLOWAY, ASSISTANT PROFESSOR OF ECONOMICS, HARVARD UNIVERSITY

Mr. SOLOWAY. Mr. Chairman and gentlemen, the great overall growth of government in the United States in the past 50 years, and the distribution of that growth among all three levels of Government—Federal, State, and local—have had tremendous impact on the whole economic climate. This paper attempts to define: (1) the important underlying causes of the overall growth of government; (2) the key factors which determine the distribution of that growth between our three levels of government; (3) the forces at work which, I believe, will shape the future course of government expenditure.

The conclusions:

1. The growth of government was a necessary concomitant, and it is my conclusion that the great growth of the Federal Government during the decade of the thirties, frequently referred to as the start of "The March of Power to Washington," is better described as "The Flight of Responsibility to Washington."

Any lasting significant increase in Federal activity or power came about as a corollary to its assumption of responsibility for functions which the States and localities could not, by themselves, or would not, undertake—and which the public demanded from government.

Second, World War II and the absence of real peace after victory brought the full cost of advanced military technology into a position of persistent dominance in the Nation's economic budget.

Furthermore, the technological requirements of modern war, or preparing for defense against it, ramify quickly to all aspects of life in our society, and hence, to almost all reaches of social policy.

Only the National Government can handle this responsibility and it has had to expand its concern over a broad range of activities as they have become closely correlated with national defense and national security.

Furthermore, the public demand in the postwar, as never before, has been for better as well as more public services. With personal income up from \$78.7 billion in 1940 to \$178 billion in 1946, and to \$327 billion in 1956, our tastes have become more expensive than ever. And, our tastes for publicly provided goods and services have reacted in essentially the same way as our tastes in private consumption.

3. Despite the overwhelming impression of the increased importance of the Federal Government, domestic governmental functions are still handled primarily at the State and local level. In fact, more than four-fifths of the growth in Federal spending since 1929 is attributable to national defense and national security programs, and less than one-fifth to expanded civil functions.

Thus, while the Federal Government in 1956 spent an amount equal to 4.8 percent of the gross national product on civil functions, the States and localities spent an amount equal to 10.4 percent.

Although the Federal Government's influence on internal functions may be greater than the proportion of its expenditures indicates—through controls over grants-in-aid and subsidy programs, for example, the States and localities are themselves doing more in both scope and scale than they have ever done. In constant (1926) dollars since 1927, for example, their spending has increased by 2.6 times and their tax collections have almost doubled.

4. As a result of population growth, inflation, and higher standards of public demand, the burden of civil functions resting on State and local governments for education, highways, welfare, health, hospitals, housing, protection, etc., has grown faster than State and local revenue. Although disparity between spending needs and revenue sources has characterized almost the entire half century, the situation of the States and localities has been made more critical since World War II.

The fact is that Federal financial requirements for the support of national defense and security programs have become so great they make increased State and local taxation more difficult.

States and localities, in addition to rising operating costs, still have a backlog capital investment needs dating from depression and war years which is being augmented constantly at a rapid rate by the new plant and equipment required to service a growing population.

So far, although rising interest costs now seriously threaten their borrowing ability, our State and local governments have been able to debt finance much of their capital spending. But current operating costs, which account for two-thirds of the increased total State and local spending, have added huge pressures to State and local finance.

Nevertheless, there does not yet appear to be any movement toward effective rationalization of State and local financial systems. Indeed, the growing intensity of interstate competition in the race to attract industry poses a more serious threat to the integrity of State government than anything we have previously seen.

On the basis of these conclusions, it seems clear that the future course of intergovernmental relations and Federal spending, will depend in greatest measure on the degree of success the States and localities achieve in meeting their pressing fiscal problems. The issue, in purely pragmatic terms, is whether and how the States and localities can develop the fiscal resources they will need to finance a satisfactory level of service in the functions for which they are responsible.

In other words, we know for certain that Government spending for domestic purposes will have to up by large amounts in the coming years, but we are not nearly so certain that the States and localities can meet the challenge they face. To the extent that they fail, the Federal Government will be forced to fill the breach.

Representative MILLS. Thank you.

The next panelist is Prof. Paul B. Trescott.

You are recognized for 5 minutes.

**STATEMENT OF PAUL B. TRECOTT, ASSOCIATE PROFESSOR,
DEPARTMENT OF ECONOMICS, KENYON COLLEGE**

Mr. TRECOTT. Thank you, Mr. Chairman. I have attempted to do two things in my paper, which I think have not, in general, been done in the others. One of these is to make a contrast between the behavior of Federal expenditures from the 20th century with that of the 19th; and the second is to bring into the picture the relationship between revenue and expenditures, which I think is essential if we want to analyze effects, particularly on economic stability.

The level of Federal expenditures in the 19th century did increase very substantially. By the end of the century, Federal spending was running about 60 times the level it had averaged prior to the War of 1812. But this represented almost no increase in the relationship between Federal spending and gross national products.

In the 20th century, we have seen this ratio between Federal spending and GNP rise very, very substantially from a 19th century level of 3 or 4 percent, it has now risen to between 15 and 20 percent.

Along with this increase in the relative magnitude of expenditures has come a proliferation of Federal spending activities. During the 19th century, the composition of Federal expenditures retained a remarkable degree of stability. The things the Government was spending money for at the beginning of the century were essentially the same things it was spending money for at the end of the century.

By contrast, in the 20th century, we have seen great expansion of the scope of Federal activity into such fields as conservation, agriculture, social security, labor organization, housing, electric power, and others. In addition, let us not overlook the great change in the nature of Federal responsibility toward veterans and toward national defense and our international position.

Why this contrast between 19th century and 20th century Federal expenditure policy? I think the slow growth of Federal spending prior to 1929 can be explained by a number of factors. The first of these is the fact that much of the pressure for Government action by the public was met by the activities of State and local governments.

Second, the importance of Presidential leadership seems to be very great. The 19th century Presidents were very, very strongly committed to a limited role of Federal activity and were willing to veto legislation violating their views.

Third, the Federal Government was able to take many actions which did not entail great expenditure increases. The most notable of these were various programs involving public lands. But, in addition, tariff policy, monetary policy, antitrust policy were major Government influences which did not involve spending very much money.

Fourth, resistance to tax increases and particularly tariff increases, and also resistance to deficit spending blocked the access to spendable funds for the Government.

Fifth, the underprivileged groups in the economy were politically impotent, perhaps because they were small, in the case of the aged, or at least when they existed, they did not pressure strongly toward increased expenditures.

I think the expansion of expenditures in more recent times reflects a change in these underlying factors.

State and local governments have been unable to muster the revenue and credit resources required for their responsibilities, most notably during the depression, and their capacity to deal with a highly integrated national economy is quite limited.

Second, there has been a change in the role of Presidential leadership, much more favorably disposed toward spending increases.

Third, the powerful groups in the economy have become dissatisfied with Federal policy not involving substantial expenditures because of the fact that they do not provide sufficient income supplements for their alleged needs.

Fourth, there is no question that the political power of groups favoring higher spending has increased substantially in the last years and, fifth, and most important, I believe, is the fact that the development of personal and corporate income taxes since 1910 has greatly increased the revenue capacity of the Government. At the same time, resistance to the peacetime deficits have substantially decreased. These forces came to be particularly important during the period of the depression and the New Deal. At that time, the traditional scope of the Federal action was drastically altered and the groundwork laid for present programs dealing with agriculture, social security, power and resources, and housing. Since that time, it is interesting to note, there has been no great extension of the scope of Federal civil activities, unless one includes the welfare state aspects of the veterans' program.

As for the relationship between Federal fiscal policy and economic stability, the pattern of the 19th century followed a rather uniform course. Generally speaking, Federal revenue policy was favorable to stabilization because Federal tax revenues tended to fall off drastically in periods of depression, reflecting the built-in flexibility of Federal revenue.

Expenditure policy, on the other hand, was generally handled in a destabilizing fashion because Federal spending was usually cut in depression periods. In the 1930's, by contrast, Federal expenditure policy was exerted in a stabilizing direction, but this was largely undermined by the destabilizing influence of very drastic tax increases.

I have also presented in my paper some material on the relationship between war finance and inflation. This appears in the table on page 71. I should point out that all of the figures, except the first column, the first and second columns, are percentage figures. I am afraid the table omits that designation.

Generally speaking, of course, Federal fiscal policy has been strongly inflationary during wartime periods, although during World War II the policies were much more rationally managed to curb this tendency.

Since 1937, there has been a much better understanding of the proper management of fiscal policy in both depression and inflation. Our postwar fiscal policy has been reasonably successful in maintaining prosperity, although, again, we should note the brunt of this policy has been on tax change rather than on expenditure change.

We have not seen any convincing demonstrations, however, that fiscal policy can deal with a major decline in business capital expenditures, nor, in practice, has fiscal policy been able to prevent

price inflation. I believe that the latter constitutes the greatest current challenge to the successful application of fiscal policy.

Representative MILLS. Thank you.

Let me commend you gentlemen on the wealth of material you have provided us on the history of Federal spending. I believe there is general agreement that we cannot fully appreciate the problems we face today without viewing them in their historical context. Your papers and statements have provided us this necessary perspective.

Tying in our past experience with our current situation and prospects, particularly the developments since you prepared your papers for the compendium, my first question is whether history suggests some necessary relationship between economic progress and either the size or kind of government expenditures.

I always had the old conservative viewpoint that it is not necessary for the Government to spend a large amount of money in order for the country to enjoy prosperity. According to history, am I wrong in that or not?

Mr. PATTERSON. I think, sir, you would find considerable disagreement among quite distinguished economists in answering that question.

Representative MILLS. First of all, I am not an economist, and I recognize that I am in the minority in that view, but does history indicate that there is a relationship between size of government spending and economic progress?

Do you want to start, Professor Lindblom?

Mr. LINDBLOM. I would say history would not support generalization that there was generally or was not generally such a relationship. The degree to which stability or economic growth depends upon government expenditures will vary with the particular circumstances of the country.

For example, in our own history, when we had such a vast quantity of western land and western resources to open up, though we called upon the Federal Government to take quite an active part in opening those resources, the volume of Federal expenditures to open them was fairly small, and economic growth was assured by the mere existence of these resources.

In a very high income economy such as ours, we have the dismal record of the 1930's to look back on as a period of low Government expenditures, and the prosperous 1940's and 1950's, a period of high Government expenditures, leaving us with the hypothesis that it may be that in a high-income economy such as ours, it is necessary to have a high level of Government expenditure as a condition of stability and as a condition of growth, as well.

Representative MILLS. You recognize, I think, the basic fact in history that the level of Government expenditures has risen not as a means of promoting economic growth, but as a concomitant of economic growth, the growth of population, and so on.

Mr. LINDBLOM. Yes.

Representative MILLS. There has been no effort to utilize Federal expenditure, according to your view, for the purpose of promoting

economic growth, except, perhaps, in time of depression. Additional expenditures have been made for the stated reason of giving the economy some degree of zip or boom.

Mr. LINDBLOM. I think the fact is we have not thought of Federal expenditures as a primary instrument for growth, but it turns out that, in recent years, high growth and high expenditures have gone together. We have had the high expenditures primarily for military reasons, not for growth reasons.

Representative MILLS. I have always thought, though I could be completely in error, that it is better for the future that we not utilize Federal spending as a planned device to promote economic growth, because, actually, the objectives of the Employment Act, in my opinion, can be attained through full utilization of resources in the private sector and with little use of resources in the Government sector, just as well as they can be attained through large use of resources in the Government sector and a smaller percentage of resources in the private sector.

Mr. LINDBLOM. You may be right.

Representative MILLS. My question is: Is there anything in history that indicates that I am right or wrong in this observation?

Mr. LINDBLOM. Well, there is this; that in recent history we have not, in fact, maintained full employment or growth in our economy since the early 1930's without substantial Federal Government expenditures. That leaves the question: Could we, if we tried?

If, for example, the cold war did not require us to maintain high Government expenditure, and we dropped our expenditures down to the level appropriate to a world with less international tension, could we then operate at full employment and grow? We do not know the answer to that.

Representative MILLS. There is nothing in history, then, that would guide us.

Mr. SOLOWAY. Chairman Mills, I would like to pick up the phrase you used, and I think this is equally important, and that is that economic growth itself will promote increased Government spending. I think this is one item that we could substantiate in history. Economic growth, itself, the fact that we have become able to produce better, that we have grown in wealth, on a personal and family basis and as a nation—this fact itself will promote increased Government spending.

Mr. TRESMOTT. I would like to supplement that by emphasizing the fact that a good part of Federal expenditure growth has come from allowing the Government to grow as the Nation's revenue tax increases through expansion of the tax base with rates unchanged. I would like to make a distinction between expenditures and Federal functions. It is certainly not true that Federal functions in the 19th century were undertaken without regard for their consequences on economic growth. Certainly, the establishment of the patent system and the establishment of protective tariffs were both very strongly and explicitly oriented toward economic growth. Alexander Hamilton's report on manufactures is a very sophisticated document in this respect. But the point is that, in our own times, we have come to

think more of programs involving large expenditures, rather than this type of activity that does not cost very much.

Representative MILLS. Perhaps my general observation did not show the proper regard for the very wise thinking of the heads of government in the 19th century. But I had not conceived that any Federal program of expenditure was undertaken for the purpose of promoting economic growth then.

I am pleased to note that there was some directed growth expenditures, according to your statement.

Mr. TRESMOTT. It is also interesting to learn the surprising degree to which expenditures on the Navy and frontier defense were rationalized in executive documents and congressional debates on the idea that they would have economically beneficial effects.

Representative MILLS. Professor Trescott, have you found anything in the history of our Federal spending that would enable you to give an answer definitely to the general question that I have raised, whether or not we can only attain the objectives of the Employment Act during periods when the Government is spending large amounts of money?

Mr. TRESMOTT. My own conclusion on the basis of 20th-century evidence, primarily, is that we would not maintain a high rate of sustained growth without some kind of Federal fiscal policy designed to promote economic stabilization.

The depression of the 1930's was not only a great shock to economic stability, but it also delayed our economic growth very substantially by reducing business capital expenditures below their previous levels.

Representative MILLS. Would you, therefore, feel that you would hold up the red flag of warning to those who believe that Federal spending should be presently reduced, and call their attention to the fact that as we reduce present levels of spending, we may well fail to attain, in some degree, the objectives of the Employment Act?

Mr. TRESMOTT. I think I would hedge myself a little more by saying that there are other ways to maintain these objectives than by maintaining current high levels of Federal expenditures.

Representative MILLS. That is the point. Could they not be attained by these other measures as well as through a high level of Government spending, in nondefense spending?

Mr. TRESMOTT. I believe they could.

Mr. PATTERSON. I would like to add that measures of Government, whether fiscal or otherwise, that are conducive to a high level of business investment, investment by private business, are also consonant with the objectives of the Employment Act of 1946, and that measures of Government that are particularly fiscal measures, that are inhibitory to a high level of business investment, are working in opposition to whatever may be going on fiscally to stimulate economic activity.

Representative MILLS. Gentlemen, we have this situation facing us—and I might say by interpolation, Senator Flanders, that I would not want to have one gain the impression that we had advance information about what was going to happen on October 4 or November 3, when we undertook this study, nor did we have advance information about what the President was to say in Oklahoma City, recently, about the necessity for greater expenditures in the field of defense.

We have this situation: Heretofore, it has been a common cliché, I think, that if we were not mindful of what we were doing, that as we reduce civil benefits as described in the last budget message, we would slow down economic growth, or if we halted them entirely, we might prevent economic growth.

Now, we are faced with a situation wherein we are told that defense expenditures must rise because of these developments. We are faced with the determination here in the Congress of whether or not those expenditures will be added to projected expenditures, or whether or not they will be compensated by reduction in other expenditures that are not related to defense.

Our question is, if we do not enjoy this continuous growth in our receipts, whether or not we shall continue a balanced budget in spite of these increases in defense, or whether or not we would permit these increases in defense to result in an unbalanced budget.

We all abhor any thought of a tax increase and equally abhor any unbalanced budget in times of high levels of economic activity. We know the unpopularity of a tax increase; we know the dire consequences of an unbalanced budget, inflationary pressures developing and so forth.

What should be our program here in the Congress? Should we just permit these additional defense increases, if they are to come, to be added onto existing civil benefits programs, or should we endeavor on the basis of your studies of history, to bring about a reduction in the civil benefits to compensate for this increase in defense?

Can we do that without running the risk of jeopardizing the objective of the Employment Act of 1946?

Mr. SOLOWAY. I would like to suggest, Mr. Chairman, that given the kind of world in which we live, I doubt very much that we can separate defense and nondefense spending as clearly as we may have been able to in years past. In short, I would like to ask a question I have asked many times.

What civil spending could we actually cut? Certainly, aid for education is now clearly a part, at least in a very high degree, of our defense effort. I don't think we could separate out a great part of our highway aid program from an overall view of national security as well. If you want to stretch the point just a very little bit, I think some of the fundamental programs we have in the fields of health and housing are also necessary concomitants to a strong national defense.

All of these programs taken together, the so-called civil programs, are not very large in volume. Therefore, my question would be where could you cut, without imperiling, as you suggested in your last statement, our national strength, and how much would you gain by such a cut?

I apologize if it is improper for me to put this in the form of a question.

Representative MILLS. You agree with me, however, that we might damage the economy, from the viewpoint of long-run economic growth, more by deficit financing in this fiscal year or next fiscal year than through a reduction in some of these items of expenditure that we, in the Congress, might well determine were not directly related to defense.

Mr. SOLOWAY. I don't think that I could answer that unequivocally, no, sir. I must confess that I would fear more cuts which might have

poor effects on some of the elements that I mentioned as being part of our total defense picture, than I would further deficits next year or the year after. This does not mean that I subscribe to deficits indefinitely.

Representative MILLS. The reason I pose these questions is because since I have been at home I have been reading some of the statements made by our colleagues in the House and Senate, analyzing the possibility of increased expenditures in the area of defense, and suggesting that it would be the better part of wisdom for us to reduce other areas as we increase in the area of defense.

In the hearings that we are now conducting, I had hoped and I do hope—and I am sure we will—to obtain information that may give us some idea of where, from the viewpoint of the objectives of the Employment Act, we might make reductions, if those reductions are deemed necessary by the Congress, on some scientific basis rather than on some hit or miss basis, such as we sometimes use when we make a reduction without regard to proper utilization of resources.

I hope before we conclude these hearings that we may get some such suggestion.

Mr. PATTERSON. In line with your thought that we should approach this on as scientific a basis as possible, I would like to suggest the fourth largest item in the budget, namely, aid to agriculture as probably the item that does call for that kind of attention. Whether the various forms of benefit the Government is providing the people through health and education, highway improvement and so on, should be curtailed or not, is, of course, a question. In such cases, value is being created for the money spent. In the case of the farm subsidies, generally speaking, it is not.

A great many economists view farm price supports as no more than a subsidy, but a very difficult one to eliminate because of the political problems involved. But that part of the budget, and this is in response to your question, seems to me to merit very close and careful examination as a possible area for considerable economy.

Representative MILLS. Some of us are on a subcommittee that will conduct a similar panel discussion of the problems of agriculture in December, a subcommittee of the Joint Economic Committee.

I said before the convening of this hearing this morning that when we began to look into a scientific method of reducing programs or eliminating programs, it might well be advisable that we look to the location of the individual program.

Of course, a person from a city district might think offhand that the very best place to do the cutting would be in an agricultural program. But the person who comes from a rural district might not prefer a scientific decision that led him in that direction.

Senator FLANDERS. Up in my country we had a visit from an Under Secretary of State some years ago, telling about the magnificent things that the price support for grain had done. Unfortunately, he did not realize he was talking to dairy farmers. So even in agricultural regions there is some sympathy for some other solution.

Representative MILLS. Do you panelists have anything further to say in connection with any question I have raised?

If not, let me recognize Mr. Curtis.

Representative CURTIS. Thank you, Mr. Chairman.

There is one fiscal question that I would like to ask the panel, if I may. It relates to some of the discussion in Mr. Soloway's paper, on page 57, and Mr. Trescott's on page 78.

The question I raise is this: Whether or not we can finance a war in a manner other than through what I call inflation. In making that point, I have attempted to bring out that inflation is, as far as the Federal Government is concerned, essentially a form of taxation, transferring purchasing power from the hands of the civilian population, the private sector, to Government.

There is some discussion of that, and it seems that we have done a better job in World War II toward using more conventional methods of financing than we did, for example, in the Civil War. What would be the answer of the panelists as to whether or not we could actually finance, or could have financed World War II other than through an inflation which cut the purchasing power of the dollar not quite in half but by about 40 percent?

Mr. SOLOWAY. I think that there is general agreement that we did a pretty good job in financing World War II, despite the inflationary developments.

Representative CURTIS. You mean comparatively. We did end up with a dollar about 40 cents off.

Mr. SOLOWAY. Yes, sir; but to my mind, at least, I think the only alternative, and it was not a feasible alternative, would have been a system of very, very detailed direct controls, which would have held everything in kind of a status quo situation at some point in time, and which would have become untenable given the tremendous changes in the whole economy that the war effort required.

We would have had then a form of suppressed inflation even more violent than the one we did develop. In short, when we mobilized as we did, so rapidly for the war, and as soon as we had used up the excess capacity that was still available in 1940, we were moving into a tremendous new era of national economic activity.

I have thought about this and compared our experience with that of England and some of the other major nations in the war, and I really don't think that there was a practical alternative—and I don't mean practical in the small sense—to allowing the kind of infiltration we had.

Representative CURTIS. Inasmuch, of course, as in the war years that is a tremendous effort imposed on the economy, particularly the Federal Government, if we spread the cost of that, consciously, over a long period, for example, instead of 10-year war bonds, suppose we had set it on a 20- or 30-year basis, would a technique like that spread this thing out economically so that we would eliminate the use of inflation as a method of financing?

Mr. PATTERSON. I am in agreement with the thought that financing of World War II was better than that of World War I, and much better than that of the Civil War or the War of 1812. But I think we should look for the imperfections in the financing of World War II, from which we are suffering even today.

Too much of the borrowing that took place was from the banking system. If more of the borrowing could have been directly from the savings of the people, we would have had less of an inflationary potential than we have today.

A second thought of mine, which I believe is not commonly held, is that the use in great volume of the savings bonds, especially series E-bonds, as a means of getting savings from the people, was unfortunate because those bonds are essentially demand notes upon the Government. They can be redeemed at a moment's notice, if the holders should prefer cash. That is, the presently outstanding \$54 billion of savings bonds represent a demand call upon the Government whenever people begin to prefer cash spending power rather than those interest-bearing bonds.

It seems to me there could be many improvements in the actual process of war borrowing, acknowledging that a considerable amount of borrowing is necessary to finance a major war, especially in its early stages.

As Mr. Soloway pointed out, the urgencies of mobilization in World War II were pressing hard upon us. I think we had to run deficits. But perhaps they could have been kept down further by somewhat higher taxes.

Representative CURTIS. Thank you.

Mr. Trescott?

Mr. TRESCOTT. I do think it is important to note, Mr. Curtis, that there are other problems involved in which inflation may not be the worst possible situation. One of the advantages of a wartime inflation is that it does encourage the economic system to use its resources to the maximum degree. As Albert Hart has pointed out in his book, *Defense Without Inflation*, it may be a good thing to pinch fixed-income groups a little bit, to encourage them to take jobs at war plants and things of that sort on a temporary basis. The trouble with this analysis is that it is essentially short run. In the long run, inflation runs to business inefficiency by making rational cost accounting impossible.

For that reason, I think its desirable aspect is relevant only to a limited period, such as World War II. But considering the methods available for preventing inflation altogether, I think you are bound to find that they do pull the economic system a little bit below its maximum use of available resources.

Let me also comment on this problem of the public debt. It seems to me that the Government faces essentially an ambiguous situation in the public debt. Deficit financing may be simply a roundabout way of creating new money, in which case there is certainly a cheaper way of doing it than that; namely, by printing more currency.

On the other hand, Government borrowing may be a method of diverting spending power out of the private economy. But if you are going to do that effectively, you must pay much higher interest rates than the Government has usually been willing to do.

Something in either of those directions would be worth debating, although I am not convinced about them.

Representative CURTIS. I am glad you raised the second point. I started with financing a war, but I was really going to bring it down to the present situation, where, if we do go into deficit financing, what method might we use for ultimately balancing out, other than through inflation? Deficit financing, I think you will agree, certainly will contribute to—it is not the same as inflation, but it certainly contributes heavily toward that. I do not think very many people disagree that we do not have to balance a budget on the basis of the

earth going around the sun any more. But, certainly, from your papers, I think there is a general agreement that there should be a balance.

I do not like to see deficit financing unless it is funded in some way or at least so that we can see our way through it. To me, there are damages that inflation causes, aside from the fact that we destroy our economic measuring stick, which is the dollar.

To me, just trying to preserve the measuring stick would almost be worthwhile or make it worthwhile to avoid an inflation. But how can we fund some of this deficit financing? Would the suggestion I made, of some really long-term securities, even 20 to 30 years, be a possible answer?

Mr. TRESCOTT. I should suppose the type of securities you would use would depend in part on from where you wanted to obtain the funds in the economy and particularly what the short-run economic situation is.

Issuing long-term bonds would most likely divert funds out of the capital market of the economy, whereas if you issue short-term bonds, it would probably come out of bank credit and I would think would be much more likely to be seriously inflationary.

But if we are really in for an economic slump in the next year or so, I am not really convinced that \$2 or \$3 billion of deficit spending, even financed by bank loans, will actually push the price level up. I think it matters a great deal what the short-run situation of the economy is.

Of course, this puts you in the unpleasant position of trying to forecast what things are going to be, and that is going to be very uncomfortable.

Representative CURTIS. Let me pose it this way: If we do not fund it, using that in a very broad sense, are we not in effect going to say that it will be paid for through the tax of inflation?

Mr. SOLOWAY. I would like to comment this way, Mr. Curtis, that a large part of the answer depends on the nature of the inflationary threat. I think a lot of us now feel that the threat of inflation, at least for the moment, has been subdued and, secondly, the nature of the inflation we have had was somewhat different than the kind of inflationary pressure of the war period.

What we have seen here is an additional factor which has familiarly been called the cost-push or wage-push kind of inflation.

I think if this is the nature of the inflationary threat, either for the immediate future or for some time in the future, then I don't really believe that deficit financing has too much of a direct, important bearing on the situation. Insofar as the inflation is not caused by excessive demand relative to our productive capacity, then the question of the Government deficit becomes somewhat less important.

Perhaps what we will have to look for is something of a wage-price stabilization policy that will prevent the cost-push type of inflation we have seen in the last 2 years.

Representative CURTIS. I have felt there was an element in this past inflation that was traditional, but the only thing that was not traditional was defining something as a commodity, that has not usually been so defined. I am referring to investment capital.

In fact, I thought most of this inflation was a shortage of investment capital and excess demand for it. The thing that seems to

have eliminated it has been a cutting back, to a large degree, a cutting back on the demand for investment capital, rather than an increased amount of investment capital being generated. But that is merely a side comment on this basic point.

The basic point I am trying to get across is that it seems to me that looking at the papers here and looking at some of the charts, which are very interesting to me, Government has moved in; the Federal Government has enlarged, in periods of war, and then after the war is over—and this is my next line of questioning, which I may forego until others have a chance—after the Government has gone out of war, it still remains considerably larger than it was before.

Part of this question, I do believe, lies in how we finance our wars, or we finance the situation we now have, which is a cold war, but, nonetheless, lying at the base is national defense.

I personally think that inflation is just about as poor a way of financing as I can think of. The burden it places is upon the element in our population on which we least want to place it. Inflation is a tax which hits the lowest income group the most because every dollar they have is a consumer dollar or every dollar they spend and, therefore, they really get hit, and people in the higher levels can hedge against it, to a large degree.

Did you want to comment on that?

Mr. LINDBLOM. I want to comment on the suggestion given to you by two of my colleagues here that the problem of deficit financing may not be as serious a problem as you think it is.

I think it may not be because of the short-run circumstances referred to. I think, however, that you have your finger on a very serious chronic tendency, particularly in our competitive race with the Soviet Union.

Hence, I would not want to deprecate the problem, and I would want to suggest that we may be in for a much more serious time than we have been expecting on the basis of the relative improvement in performance in controlling inflation from one war to another.

You started out by commenting on how greatly our performance has improved from war to war, but we want to remember that we went into the last great war with great quantities of unemployed labor and unemployed resources. Consequently, it was relatively easy on that score to expand Government spending and run a deficit without the immediate inflationary consequences that you would get almost immediately with an expansion of Government expenditure in wartime now.

If a war were to develop, it might be that our record of controlling inflation would be much poorer than our record in World War II.

Short of war, the Oklahoma speech of the President suggests the kind of increasing demand which, if intensified, may develop a greater push on prices. I point these possibilities out not so much to disagree with my colleagues, but just to suggest that we may not be able to read the crystal ball.

Representative MILLS. Senator Flanders has some questions for the panel.

Senator FLANDERS. I was interested, Professor Lindblom, in the drift of your paper which seems to indicate that our hope of returning some activities to the State is a fantastic dream.

Do you really feel that way or have I overstated your position?

Mr. LINDBLOM. No, it seems to me that there is a real possibility of this sort. I must have made myself misunderstood.

Senator FLANDERS. You offer so many reasons why the national finance—

Mr. LINDBLOM. I meant these as reasons why there might be demand for increases, in spending, but not at the Federal level, necessarily. The demands are primarily on the State and local levels.

Senator FLANDERS. I am glad that I did misconstrue your position because there are, I think, certain advantages in independent approaches to all kinds of problems by the States, a variety rather than a dead uniformity imposed from above.

Mr. LINDBLOM. I think there are several possible explanations that might be given for a kind of rebirth, or renaissance of State and local activity in this economy.

Senator FLANDERS. Thank you.

My next question is directed to Professor Patterson.

One of the things I have been hearing, perhaps unwisely, is that the very large public expenditures are necessary for economic growth and health. That raises the question on your brief statement, sir, on page 2 at the foot of the page where you call attention to the fact that major national security was \$43.3 billion so that it overshadowed all the other areas of expense.

It sounds fantastic, but I think while it may seem improbable, I do not think it impossible that some arrangement be arrived at. As I say, I put it in the improbable rather than the impossible class. When, as, and if that happens, will it be a major crisis that we will face, so far as employment, production, and economic expansion are concerned?

Mr. PATTERSON. Senator Flanders, I can only express what is an opinion, but my own feeling is that the reduction in national security outlays, if it should be so fortunately possible, would not at all necessarily lead to a decline in business activity and in national income. I believe that is the tenor of your question; is it not, sir?

Many elements would have to be taken into consideration. The effect on business psychology is certainly one. It could be very encouraging and stimulating to business investment to see a marked reduction in the budget and in taxes that fall so heavily on business. I can point out that historically, although there are differences that have to be noted, too, following World War II there was a tremendous reduction in defense expenditure.

Roughly, I recall a reduction of from some 90 billions of dollars in 1945 to somewhere in the magnitude of 12 or 13 billion dollars by 1947, 1948, and 1949. This was a tremendous reduction. I have to point out, of course, that pent-up demands from wartime were being released to take over and support the economy. That would not be the case today. But it does not necessarily follow that a cut in defense expenditures will lead us right into depression. It may or may not. It is very hard to predict. When it is possible it will be eminently worth any such risk.

Senator FLANDERS. I am glad that you feel it is possible to make a major shift of that sort without necessarily running into a deep and long-lasting calamity. However, would you not feel that it is wise to do a little thinking about the change?

Mr. PATTERSON. It certainly is, Senator Flanders. We ought to be on our toes and very much alert to protect ourselves as much as possible from any very severe decline in business activity and national income.

As I think my view in the summary of the paper indicated, I would not be averse to seeing some modest amount of recession at the present or some near future time, if only it had the effect of reminding people that we are not on a one-way street of continually rising prices, rising gross national product, and all of the conditions that are favorable to inept management of business, reduced labor efficiency, and an excessive amount of speculation.

If the belief were strongly current that there was only a one-way street for prices, that prices would always rise and, therefore, one should part with one's dollars for equity investments, it would lead to a flight from the dollar.

This may be going beyond the scope of your question, but I believe it is all relevant.

Senator FLANDERS. On page 4, I picked out these two sentences. The first is from the second full paragraph:

Full employment may be a wholesome phenomenon or an unwholesome one, depending on many circumstances.

Then, down in the fourth full paragraph, you say:

The real goal is maximum long-run growth.

I would like to inquire about your basic philosophy of Government. Can you think of us having any other end than that of the well-being of the citizens and individuals?

Mr. PATTERSON. It should certainly be that. We know from the past, however, especially in Europe, that the end of government has sometimes been the enslavement of all of the citizens to the government. Certainly, I think there are few Americans who would want that sort of situation. The greatest possible freedom for the individual and for private business, consonant with the protection that government can give us, seems to me a proper goal.

Senator FLANDERS. When you say that it does not necessarily follow that continual full employment is the measure most conducive to long-run growth, you are willing to put that in terms of the long-run interests of the individual citizens?

Mr. PATTERSON. Yes, sir; I am.

Senator FLANDERS. I may say, Mr. Chairman, before I came to the Senate, I was in on the formation of this committee representing the CED before the committees of both the House and the Senate, and at that time, what influence I had was to divert the official description of the purpose from that of full employment to, as I remember the words, "A high level of employment." It did not seem to me that full employment, as a practical objective, could be undertaken with any hope of success or with any hope of its being a useful objective.

Thank you very much, sir.

How can you have maximum long-run growth if you have idle resources?

Going back to my previous question, one of those idle resources is available human labor.

Mr. Chairman, I have been concerned throughout the whole of my membership on this committee with the idle human resources. I wish we could solve that problem of getting those idle resources at work. The rural poverty, to my mind, is far more serious than the urban poverty. I do not know but that is an observation.

Mr. TRESKOTT. I would like to comment that it makes a good deal of difference what sort of employment these resources are engaged in, as far as economic growth is concerned. I am not really convinced that economic growth is served by putting these people at work producing more surplus commodities, which the public is not permitted to buy.

Senator FLANDERS. That, of course, poses one aspect of the problem. But would it not be nice if, in some way, they could be put to producing commodities which they, themselves, could enjoy? I do not mean any short circuit, but make a contribution to the general store which, in large part, would come back to them.

Mr. LINDBLOM. It seems an interesting possibility in American history that in our preoccupation with the individual as an individual rather than as a resource, a supplier of labor, we have wasted our most valuable resources to an uncalled for degree. That is, we have traditionally looked upon demands for health and housing and education as though they were demands for the collective provision of consumer goods, whereas, following what you were saying, and what Mr. Soloway was saying a while ago, these can be seen as demands to equip resources with skills and the strengths, so that they can produce to the maximum of their capacity.

Senator FLANDERS. Thank you.

I have a note or two on Mr. Soloway's statement.

I was much interested in the phrase on the third line of page 2, where there is the suggestion that the march of power to Washington is better described as the flight of responsibility to Washington.

That is a very acute observation of the situation as I saw it from 1933 on, as a member of the Business Advisory Council and as a part of the Industrial Advisory Board of NRA.

Perhaps not the same individuals, but pretty nearly, the same group of businessmen who are now so keen on separating business from Government influences so far as possible were then crying for help. I can name names, but I will not do it.

Which one of you made the suggestion, perhaps in discussion, that this was a little different kind of inflation from the classical sort?

Mr. Soloway?

At a subcommittee meeting of this general committee last week, I again invited myself to be a guest, though I was not on the subcommittee, and made this suggestion: That the principle ought to be accepted that any increase in rate of production per labor hour ought to be split three ways. I suggested that though the proportions were not too important, one-third might go to wages, one-third might go to profit and one-third might go to the reduction of prices to the consumer.

I do not know how to legislate that, Mr. Chairman. It would present an impossible legislative program. Yet, I am convinced that in the kind of inflation we have been having, the principle should be

in the back of the minds of the negotiators who are concerned with increases of wages, that the management and employees should have that in mind and should be charged to keep it in mind by the public.

You see, that is a good deal for the wage earner. He gets increased wages, he gets cheaper goods and furthermore, he allows the employer something to spend for more laborsaving equipment, and thereby, again gets a new turn of higher wages and lower prices for goods. I do not see where that as a principle could not be sold on long-range self-interest. But I do not know how to legislate it.

Professor TRESCOTT, I attempted to make a probably fallacious logical application of fallacious logic to some of your points as I got them. Speaking roughly and crudely, because I do not take things easily through the ear, I judge that you felt that Government expenditure was an important element in prosperity and, at another point, if I understood you, you indicated that Government expenditures would be an important element in inflation.

I wonder if it was logical on that basis to equate prosperity and inflation.

Mr. TRESCOTT. I certainly did not wish to imply that I considered the two as being totally interchangeable. I think I would argue that the relationship between Government expenditure and prosperity or inflation depends first of all, on the relationship between expenditure and revenues. That is, whether you have a surplus or deficit; and, secondly, on the state of affairs in the private economy, whether you have reasonably full employment or not.

Certainly, we generally assume that if there are substantial amounts of unemployed resources an increase in Government expenditure, with or without compensating increases in taxes, will usually raise real income and not substantially raise the price level.

This seems to me very well borne out during the 1930's, although I think the extent to which it was actually followed was disappointingly small. But when you have reasonably full employment of resources, as we have had in recent years and still do, then any substantial increase of Government expenditure, again with or without an equal increase in tax revenue, is likely to exert some inflationary pressure. But the magnitudes involved are also important.

Keep in mind that we have a gross national product now, of over \$400 billion. So a change of Government expenditure, say, \$1 billion, even attaching multiplier effects to it, would not result in a large percentage change of total expenditures for goods and services in the economy.

Senator FLANDERS. Thank you. I will read that over with care in the published report.

I have just one other point, Mr. Chairman, and then I am through.

It is suggested, after listening to Professor Trescott, that there ought to be some distinction made in our minds between Government expenditures for the growth of our economy, and Government expenditures for the maintenance of balance in our economy. That is, as a means for steadying, cutting down the extreme of the ups and downs.

The expenditures for balance are well within the range of my own personal thought and action for many years. Expenditure of growth, directed definitely and purposefully toward growth, has not been a thing which I have given much consideration to. I believe these

papers this morning should be very worthwhile in considering from that standpoint, to see whether it is fallacious or useful.

That is all.

Representative MILLS. Gentlemen, I wonder whether in terms of our postwar experience and present prospects for continuation of the cold war, the Nation's economic situation is not materially different from what we have had to face in the past, as you analyzed it here this morning.

Has there, at any time in our history been such a heavy requirement from the point of view of national security with respect to our total productive capacity? Are we not in an entirely different situation today than anything that you experienced in studying the past effect of Federal expenditures upon economic growth and capacity? Is it not different?

Mr. PATTERSON. May I say very definitely that it is extremely different and that before World War II we were in, or just coming out of, a deep depression with many idle resources. Our financial capacity then was even stronger than we believed. Today, however, our financial capacity is to be questioned. Even the strength of the Government's credit can in a certain respect be questioned, because of the tremendous inflationary potential that now hangs over us. We do not have either the idle resources or the idle savings to offer to support a new and large war as we had then.

Representative MILLS. Do all of you agree with the thought that we are in an entirely different situation, with respect to the question I raised, from that of any time in the past?

Mr. LINDBLOM. I agree.

Mr. SOLOWAY. I agree with a very slight modification of Professor Patterson's statement. I think the recent capital investment boom which we had gives us, at least for the moment, a lot of new capacity, a lot which is not yet on the market with final goods and the increased productivity which we will see in the next few years will be at substantially a higher rate than that which we had in the last few years.

In the last few years productivity increase was extraordinarily sluggish, a rather unusual occurrence in our entire recent history. I think our capacity to expand, to meet both defense and other needs, is still promising and that if our policies, including Government expenditure policies, are directed toward increasing our capacity, then we can meet this on a long-term basis without fear of an inflation.

Mr. TRESCOTT. Let me implement this by saying that although we may have to give up a large portion of our output to national defense purposes, we are also able to do this without encroaching on the highest standard of living of this country which the people have enjoyed.

Representative MILLS. In view of our need to keep up and/or surpass other nations in the technology of defense, with the consequent prospects of continuing increases in the cost of national security, should we not look at demands for other types of services a great deal more critically than we felt it was necessary to do in the past?

Mr. LINDBLOM. I would say that it would be more profitable to look at our historic aversion to paying taxes. That is to say, it seems to me that most of the demands that we are making on government are demands that probably can be predicted to continue to be made.

While in an organization such as government, it is always possible to find fantastic and amusing cases of waste, the possibility of stripping any of our governmental organizations to achieve any real savings to set off against the increased possibility of military expenditure is slim.

Consequently, it seems to me that because we are in a new situation—and I agree with you that we are—we need a new attitude toward revenues. We have, I think, to get over our traditional feeling that taxes are a plague on us rather than—as expenditures in the market are—something we pay for which we get value received.

Representative MILLS. But, Professor Lindblom, do you not think it is incumbent upon the Congress, and I will get back to some of my original thinking that I expressed this morning earlier, do you not think it is incumbent upon the Congress before it takes any program of balancing the budget through increased taxation, to ascertain whether or not present conditions justify a reevaluation of some of these programs that we have enacted in the past, ostensibly to maintain a way of life?

Mr. LINDBLOM. Yes; but I would believe that a reevaluation of civilian expenditure in the light of the new defense needs we think we may have on our hands, would lead us to substantially increase educational expenditures and other civilian expenditures, along the lines suggested by Mr. Soloway earlier; and, while we could strike some expenditures in the agricultural field, or the whole, a reexamination will up rather than reduce civilian expenditures.

Representative MILLS. You are most discouraging on that point of view, to say the least.

Mr. LINDBLOM. I know.

Representative MILLS. Before we get through with these studies, we may end up with the recommendation that in place of reducing so-called nondefense expenditures, that in the months ahead we should recommend that they be increased.

Mr. LINDBLOM. Yes; very likely this might develop.

Representative MILLS. That is on this morning a most invigorating thought.

Mr. LINDBLOM. May I say this just as an interesting sidelight on attitudes toward public expenditures?

People take pride in their ability to be able to spend in this country. A man who can spend on a Cadillac gets a certain prestige because he did not have to put up with a secondhand car or a lower-priced car. It is a matter of prestige.

On the other hand, we do not consider it a matter of prestige or pride that we can afford to buy things through taxation. It is a curious discrepancy in our attitude. I suggest we are a country wealthy enough now so that we can afford a little pride in what we can buy with our tax dollar, rather than suffer this nagging worry that we are bringing our system to a breaking point.

Representative CURTIS. We do take that pride in relation to other nations. But, on individuals, of course, we take it as individuals. But we take a great deal of national pride; too much so, perhaps. They do take the pride in expenditure of the public dollar.

Representative MILLS. I think you and I are poles apart here this morning, Professor Lindblom, in the possible result or attainment of this hearing. But I think we are still together in the answer to

the question I am raising. You have looked at the past history of Federal spending. My primary question is this:

Is there not evidence today that our situation is so different that we need to pay more attention to expenditures of Government for services not related, except as Professor Soloway relates them, to the defense program than ever before, and that in determining the extent of those programs that we use different criteria for evaluating them, in the light of existing circumstances, than we have utilized in the past?

I think there will be general agreement on that.

Mr. LINDBLOM. Yes; I agree.

Representative MILLS. You and I will part company then, when you say that the reevaluation would lead us into the direction of greater expenditure. I would hope it would lead us in the direction of less expenditure in these fields.

Mr. SOLOWAY. I would just like to add that I think the question really hinges on how you see specific expenditures in relation to our defense effort.

The view that I express more or less is similar to what we discussed before in terms of inflationary causes. If we take a look at all of our resources which must inevitably be brought into all of this, the competition with Russia, the increased Government expenditures as a form of capital investment in resources, in a somewhat broader sense than we have traditionally, I think we are in agreement.

The question, though, really will be decided on how the development of these other resources is due in terms of our long-run defense effort. Here, I think, there will be a lot of individual disagreement.

Representative MILLS. Professor Soloway, in your statement you alluded to the thought, at least, that we might, in the days ahead, have to spend more money for scientific research and development and, perhaps, even in the education of a young man to be a scientist, along the lines of the President's suggestion recently.

Does your observation in that direction result from a realization of the difference in the situation that prevails today in the field of scientific research and technological growth from that which has existed in the past?

What I am saying is this: In the past, we have always thought, even today, that one of the principal components of economic growth is invention and technological development. Those things happened in the United States, as I understand history, largely through private effort. We experienced these improvements because, as some have said, of the accidental finding of some new way to do something that became patentable, or, as others have said, through the development and maintenance over the years of an intellectual group that had the ability to have ideas, and perfect those ideas, and then, later, industry to put them into mass production.

Is there a change in this whole field in the last 50 years, say, that now prompts us to feel that the only way we can go ahead scientifically for defense purposes, primarily, is through the expenditure of Federal funds, when Federal funds were not previously expended in any great amount?

Is it because of the changeover in the entire scientific approach from the individual as we described him in the past into the scientific team of today?

Mr. SOLOWAY. Yes, sir; I think there is a lot to that. I think the technology of invention or innovation, making available practical research developments, has changed. I think we not only have to look at Government alone. Let us take a look at our greatest private industrial laboratories, companies such as the Du Pont Co., for example, maintaining a vast number of laboratories where scientists are employed pursuing specific objectives on a team basis. I do not subscribe to the notion that the reason the Russians put Sputnik into the atmosphere before we did was because of major lack of a scientific educational program. I think what they did was mobilize more along the lines of a team effort all the engineering effort that was required to win time—the kind of thing, perhaps, that we did with the atomic bomb a few years ago.

Representative MILLS. Are you saying that we can catch up, if we are behind, in these programs involving missiles by the mere mobilization of scientific know-how now present in the United States, rather than the development of additional scientific know-how?

Mr. SOLOWAY. I would hope so. But I am not an authority on this subject, and, therefore, I would hesitate to make a categorical statement. I certainly nourish the hope that better mobilization of engineering and scientific talent on these problems would put us up to where we should be. I speak with no authority, however; no authority whatever.

Representative MILLS. I am sure the Members of Congress will want to go into this further. We are not a legislating committee, and cannot solve the problem this morning. But you are impressed that this is a new ingredient in our economy that requires greater Federal funds than we have spent in the past for this purpose?

Mr. SOLOWAY. Yes, sir; but in a somewhat less direct way. What seems to me important is that we do the best job we can in the field of education broadly, not specifically at engineering or specific areas of science which today are very important, but education as a whole. We are losing a certain proportion of talented people because of the expenses involved in gaining higher education. I think that is clear. I think a lot of talents that we have are not being attracted into areas which serve the national interest best because they do not serve the individual's interests best. I think this will involve more Federal spending. I think a large part of the problem could conceivably be solved without the Federal Government if the State governments, for example, were to have proper policy in this direction. But I am not nearly so optimistic as others, as to the capacities of our States and their willingness to meet the problems at the State level to help in the total picture.

Representative MILLS. Mr. Bolling desires to ask a question.

Representative BOLLING. This is directed specifically to Mr. Lindblom. I gather, from your comment on taxes, that you feel that society as a whole has been making the wrong decision as between private expenditures and public expenditures.

What you are saying, in effect, is that this is so; that our decisions in society over the past number of years have been in error; that the way in which we can redress that error is by an increase in taxes so that the public expenditure is for education and the broad kinds of things that are, maybe, fundamental to our strength in defense over a period of time, being a more direct and effective solution?

Mr. LINDBLOM. Yes.

Representative BOLLING. Would there be any agreement, on the part of the panel, that this is a sound approach?

Mr. LINDBLOM. I would suspect not, but let's see.

Mr. SOLOWAY. I would like to endorse that.

Representative BOLLING. Would you be specific as to where society has made errors as to one point or another?

Mr. LINDBLOM. The one that comes to my mind, specifically, is education, on all levels.

Representative BOLLING. As compared to what?

Mr. LINDBLOM. As compared to one commonly joked about these days, the vast resources going to tail fins.

Representative BOLLING. Do you have another illustration?

Mr. LINDBLOM. I have in mind here just the general richness of a market for consumer goods, the tremendous variety of tastes we are quick to satisfy as long as a man has his own dollar to spend on a private market.

Representative BOLLING. Do you have any comment on the functionality of some of those goods?

Mr. LINDBLOM. Well, it invites jokes, but I guess that isn't what you want.

Representative BOLLING. A good joke may be very illustrative.

Mr. LINDBLOM. The Chrysler Corp. argues their fins give stability to the car at high speeds. This is the kind of functionality you sometimes find. Of course, a great deal of consumer goods are functional in the sense that we enjoy these commodities, and I enjoy them, too, I suppose, as much as anyone else does. It is a matter of proportions. I would not want to argue that our expenses on consumer goods, plentiful as the stream is, are wasteful expenditures. They seem to be expenditures from which we get a great deal of pleasure. I am simply suggesting that, if we stop and think a little bit about priorities, I think we would have a hard time, on sober reflection, justifying the relatively low priority we would put on health and education, for example, and say, highway development compared to the valuation that we, implicitly, through market behavior, put on the vast flow of consumer goods coming out of the factories.

Mr. TRESMOTT. I am inclined to share Mr. Lindblom's conviction that we don't devote enough of our resources to collective consumption, but I do have misgivings about this that make me less than enthusiastic about it.

The first is my own personal feeling that taxation, because it involves the coercive apparatus of the state, is something that should be avoided, other things being equal.

Second is the feeling that while we could profitably devote more of our resources to certain collective activities, there is no guaranty, the political process being what it is, that an increase in Federal spending or any other spending would really go into these channels. I must confess that I have been a good bit disturbed by the inclination of these periodic economy drives in Congress to take the form of lopping off expenditure categories which seem to me to fall in a high priority class, research being an obvious example, and the areas which seem to me to have the lowest social priorities are in many cases the ones which are most exempt from the legislative ax, or whatever is being wielded.

Representative BOLLING. Would a substantial tax increase have a very adverse economic effect?

Mr. TRESMOTT. I think that would depend in part on what kind of tax was increased and how this was matched by the expenditures.

Representative BOLLING. Let me rephrase it.

Can you conceive of a tax increase of the order of \$10 billion and the expenditure of \$10 billion going directly to defense or very directly related to defense activities which would not have an adverse economic effect?

In other words, you can choose the kind of tax it could be.

Mr. LINDBLOM. I would like to say to that, that it seems to me that in reducing expenditures, which we talked about earlier, or in raising taxes, one ought to proceed with caution. One can try and observe the results as one moves tax rates up. It is just as one would have to move with caution in reducing expenditures, if they were what one were after. I think the capacity is there, but this is only an individual opinion.

I would like to add the further point that I have seen some calculations, made by other members of other panels coming before you on later days that indicate that on the basis of growing gross national product, without any increase in tax rates, there will be substantial possibilities for financing rather considerable increases in public expenditures, civilian and military, whichever way you wish to take it.

Mr. SOLOWAY. I would comment there is an obverse of this, too. If you were to allow something which I call a preventive recession, we would find that we might be operating at a deficit merely because our tax take went down so sharply on major Federal taxes. This means that a high level of economic activity seems to me at this point terribly important for avoiding deficits, as well as for a lot of other reasons.

Representative BOLLING. That is all, Mr. Chairman. Thank you.

Representative MILLS. Mr. Curtis.

Representative CURTIS. Before I get into the line of questioning, although this is in line, I can't help but comment in the form of an invitation for further comment from Professor Soloway, when the question was asked about the spending of greater Federal funds for scientific investigation, or research and development.

I believe you suggested that you felt that we had not mobilized in the same fashion that Russia had the scientific and engineering talents available. The observation I wish to make, and I happen to personally think that is exactly what we have not done, is that spending more money is certainly not going to help that. Actually, if you really do mobilize the talents you have, instead of shooting out in four different directions, you can get greater results with less money. So it doesn't seem to me that that calls for more Federal expenditures. Would you say that is a fair observation?

Mr. SOLOWAY. Yes, sir; and it is an observation with which I agree, except that I directed my comment on increased expenditures more to the support of education as a whole. What I am thinking of here is establishing the firmest, broadest groundwork from which we can draw the best scientific as well as other talents we will need. But in relation to this program, I agree with you completely.

Representative CURTIS. I happen to agree with your observation on education, too, with some modifications. But I am afraid that there is getting to be almost a hysteria in this country that just by voting more money you are going to get results. The problem is to convert the money into results.

Mr. LINDBLOM. Bear in mind that the way we mobilize talents in this country is to hire it. We don't conscript it. That means that if you want to mobilize the skills that are already available in this country, you will mobilize them out of the industries producing consumer goods into the industries which are producing missiles.

Representative CURTIS. That might be, but you might have a situation where we have already mobilized them, the Army mobilized its group, the Navy its group, and the Air Force its group.

Mr. LINDBLOM. There is that possibility, too.

Representative CURTIS. I suggest it is more than a possibility. I suggest that is what happened. Probably 1 team might be able to produce a great deal more results than 4 teams operating separately, and the cost to the Federal Government might be less. At least, that is the theory that should be explored, it seems to me, before we just go ahead and vote the money.

The other major point I wanted to develop, if I may, is getting back to the papers. All of you feel that the growth of the Federal Government has come essentially in war periods and then there has not been a complete slack back to the previous prewar period, with one exception, and that was the depression, where there was also an increase. But in each instance, whether the reasoning was war or immediate depression, we have gone on at a higher plateau of Federal Government activity after that.

It seems to me that in both instances we are dealing with a very essential governmental function. In war, of course, it is national defense, and very properly in wartime we move into these Federal expenditures. In depression, we also are dealing with a very basic governmental responsibility to deal with indigence, and we are going to deal with indigence somehow or other. It is a question of how we do.

The real point, it seems to me, is that there should be some examination after the war has gone to see just how much the Federal Government has moved in, to see whether or not it should not, may I say, disgorge or recede beyond what it has. In the same way in meeting indigency, it is a question of having met it, should there be some recession of Federal activity. I don't believe there has been too much attention in the past, on the governmental level, paid to that.

Incidentally, I was very interested in the illustration of Professor Trescott's on page 81 of the disbursement officers in the Civil War who had \$100 million they had not spent, and it took a little time to get that out of their hands.

It seems to me the real force behind the Hoover Commission's recommendations, upon a bulk analysis, is in this area. The Hoover Commission looked into some of these areas that the Federal Government moved into, particularly the military, in times of great emotion, and it also had the legitimate need of handling our defense, to see whether or not it should remain in some of these areas.

I want to illustrate and then take one specific thing for further discussion. One area is in education. A lot of people, I am afraid, do not recognize the extent to which the Military Establishment has moved into vocational education. They have duplicated the classrooms all over America in vocational education. They compete with the civilian vocational educational system for teachers, instructors, and so forth.

Now, it is a question of: Is that an area that the military or the Federal Government should remain in?

In World War II, the Seabees procured the bulldozer operator from the civilian society, instead of taking a boy 18 and training him to be a bulldozer operator.

After World War II, this was not even recession, it was going further, the Navy went into the business of teaching bulldozer operators, and are in it today. Some of these other examples are from the Hoover Commission.

After the war, the military was found to be in the coffee-roasting business, preparing, canning, and distribution of coffee. That is just one of many hundreds of items.

Was that something that the Federal Government should have remained in? The Hoover Commission points out a great many of those, the growing up of independent groups within the four services. I say four, because the Defense Department has become a service of itself now.

The Medical Supply Corps, for example, the duplication of hospitals, and the use of medical personnel, which are trained personnel, is another area getting into the same scientific area of whether or not there is a real mobilization, a proper mobilization of the talents that we have.

On page 47 Professor Soloway gives a very interesting figure on the cost per serviceman, the increase that has occurred over a period of years. On that, incidentally, I might remark I think it is a very comparable thing to what has happened in the private economy, where the requirements of capital investment to employ one man are constantly going up, a very similar picture.

But as compared with the cost of a serviceman, what would the cost be for a Ready Reserve? I think we would find that it would be one-tenth of what it is for the serviceman.

A panel in later papers will get into the specifics of some of these large areas of expenditures. The only point I want to raise at this time on this panel, which has dealt with the general problem, is this: Is it possible that with this tremendous growth in time of war, and in depression, to meet legitimate Government needs on an emergency basis when the war has disappeared and the depression has been cared for, has the Federal Government remained in areas that we would have gotten them into if we had thought over each step? Have we analyzed that carefully?

Mr. SOLOWAY. On that I think I would make another general statement to this effect, that it wasn't the wars or depressions that were at the base of increased Government spending. They did result in tremendous increases at a point of time. But in the Government functions, by and large, aside from the kinds of things that you mentioned, perhaps many others that the Hoover Commission indicated, the basic causes of the growth were already there, and the wars and depres-

sions more or less served as kind of catalytic agents, and they led to the adoption of Government activities which were in the cards, so to speak, anyway.

I am thinking particularly now of the depression period spending. So many of the programs that we ultimately ended up with, and there weren't that many of them that have lasted to this day, had been agitated for, publicized for, long in advance. Even something like TVA went back to 1919.

Representative CURTIS. May I interject there a further thought, because I know that you developed that point, and I thought it was very interesting. May I make the suggestion: Let's take, for example, the Federal Government moving into the housing industry through the creation of the savings and loan industry, the Federal savings and loan. There the Federal Government, though, receded after it got the thing going. I think it was under the Post Office Department that Mr. Bell developed the telephone, but the Post Office Department did not stay in the industry. It was turned over elsewhere, beneficently to our society I would say.

So I say in the depression, even these things were indicated.

Take social security, for example. There is an operation in the private sector of the economy that is in the same business as social security: our great life insurance industry. It is becoming more important every day. We went into social security essentially because of indigency but I am wondering whether we don't use indigency as a vehicle—and I carry that over to housing and some of these other things—to solve things beyond indigency, things that might be handled better through the private sector.

The fact that we did that, through the emotionalism of meeting the depression, got us into it. But was it good economics that we got into it as far as we did?

That is the question I pose. Once the emotion has passed of why we got into that thing, we haven't, it seems to me, taken a look, to see whether we should be in it, and whether there should be areas that we should not be in.

In other words, Professor Lindblom, I point out that there are a few mossbacks left who think that there is still a basis of argument or studying to find whether just because we have gotten into all of these things it is accepted. I don't accept it. I want to discuss it. I want to see whether the Federal Government actually performs this function better than private enterprise would.

Mr. LINDBLOM. I would like to say that I quite agree that governments do pick up functions which appear to be accidents and only temporarily admissible as governmental functions, and which ought to be stripped off.

On the other hand, there are two processes at work here, which one is almost tempted to call laws, though they are merely speculative hypotheses. One is that what doesn't go in the front door, goes around and gets into the back. I mean by that that there is intense pressure for government to assume certain responsibilities, and if the responsibility is rejected by legislators, then in informal ways, the responsibility often gets assumed by government anyway, because the pressures simply cannot be turned down.

For example, legal relief for one period in our history was supplied illegally through food baskets passed out by party workers for

the big city machines. We didn't want to accept formal governmental responsibility, so this was done through the back door.

In the time we have been debating medical care in this country and turning our backs on public-health insurance, we have gotten a good start on socialized medicine through the Veterans' Administration.

Similarly, you pointed out while we have been not taking action formally and explicitly to enlarge the Government's responsibility for vocational education, we have done it through the military. I think often these pressures are legitimate pressures, and sometimes they are not. We might as well look them in the face and get some of them in the front door rather than the back.

The other process is this: The more you talk about public expenditures, the higher they rise. I think your hope is that by reconsidering and thinking over what we have done in periods of war and depression, we will strip government of functions. I think our experience has been, actually, that as we think over what we have done, we like it and we do more of it.

Representative CURTIS. There might be a tendency. The thing that creates the tremendous pressures on the Congress is the fact that there is a social need. Now, if the social need is not met, there is no question but the pressures will be on government to meet it. The question I pose, though, is can those social needs be met in another fashion, and is that other fashion a better fashion?

The way I analyze most of these things it seems to me that a real competitive private enterprise in the particular area will bring about the results with a great deal more flexibility than the Government. The Government is composed of human beings, after all. I think the personnel system of civil service, being what it has to be, a compromise system to prevent spoils politics—and I have to agree with the compromise—in putting in the compromise, you create a rigid personnel system that does not function too well. There are a lot of drawbacks in having human beings functioning under Government to perform some service to the community.

Mr. SOLOWAY. I would like to add that I don't think Professor Lindblom needs my support, but in studying the report of the Kestnbaum Commission, I think it is interesting to note that while this Commission was formed for the avowed purpose of investigating the areas which the Federal Government could give up and turn back to the States, and return to the balance between Federal and State and local governments, when you analyze their final conclusions, there was not a single function that they asked the Federal Government to give up. There was nothing proposed that should be turned back to the States.

Representative CURTIS. I had not gotten that point. That is very discouraging to me.

Mr. PATTERSON. It seems to me that in these things you bring up, distinctions are necessary, or classifications. I don't want to speak on the classification that includes the vocational training programs of the armed services, except to say that that should be examined carefully, too. But I would like to make something of a generalization: With respect to those activities that are truly of a business nature, the return of them to private enterprise where that enterprise is really competitive, would almost necessarily mean an economy for the Government. I would emphasize that the private businesses which carry

on that activity, must be truly competitive; then I think the gain is clearly indicated.

Representative CURTIS. Thank you. I, too, would add the fact that I think it needs to be competitive. If that element is not in there, my thesis would fall.

Thank you.

Representative MILLS. Gentlemen, let me ask one further question, somewhat in summation.

Since there are only a limited number of resources available, human and otherwise, within a country at a given time, and government's use of those resources may well mean the deprivation of the private sector of the use of resources, does the history of Federal spending give any indication as to specific programs now operated by government, which, in the opinion of the panel, should be preserved because they do make a direct contribution to economic growth, and, on the other hand, are there any specific programs of government that should either be reduced or eliminated because they do not make any contribution to economic growth, but actually serve to impede economic growth?

We used to refer to a question as a \$64 question. That may be a \$64 million question.

Mr. SOLOWAY. I think Mr. Patterson, when he mentioned aid to agriculture as a field of Federal expenditure which may not lead to economic growth, has hit upon the one of single most importance sir.

Representative MILLS. Is that the only one?

Mr. SOLOWAY. That is the only major—

Representative MILLS. I come from a rural district.

Mr. SOLOWAY. I love rural districts, but I think in terms of major expenditures this is the only one of which I am aware.

Mr. PATTERSON. This has political implications, too, and ought to be judged carefully. But I suspect, and speaking as a veteran, too, that in the payments and benefits to veterans, there are probably considerable areas of economy possible without injustice to those people to whom we do feel we owe a great deal. The payments to veterans in 1957 were the third largest expenditure item, \$4.8 billion, just slightly larger than the agricultural payments.

Representative MILLS. Are you putting these two programs in the category of impeding economic growth or making no contribution to economic growth?

Mr. PATTERSON. Well, perhaps it could be debated. It seems to me, though, that the revenue obtained from the general economy, from taxpayers, to be sluiced over as transfer payments to these two sectors of the economy, namely the veterans and the farmers, creates a dis-economy.

Representative MILLS. Does the housing program make any contribution to the economic growth, or does it impede economic growth?

Mr. PATTERSON. In my own opinion, the subsidy that is inherent—

Representative MILLS. You understand I am referring in each instance in terms of efficient use of resources.

Mr. PATTERSON. In my opinion, the subsidization of housing by Government, to the extent that it is leading to a malallocation of resources and to the extent that the interest rate charged is less than

the free market interest rate would be, is a transfer of funds through the subsidization by the Federal Government from some people who have presumably created wealth to gain those funds, to other people who are being helped. If they are indigent, perhaps we should help them and want to, but then we should recognize that it is something beyond the simple matter of production.

Representative MILLS. It is a little difficult for me, as it is for you with respect to agriculture, to understand that Government support in buying a \$50,000 house is an efficient use of resources and in the interest of economic growth. I make that merely as an observation, not as a fixed position.

Mr. PATTERSON. It seems to me that there is a question of equity involved in these activities where Government takes from some in order to give to others. I don't mean that the Government should entirely stop doing that sort of thing. But it should be understood that when money is obtained from those who have produced, in order to give to other people who haven't produced, perhaps to assist them to a higher standard of living, a question of equity is involved. If the transfer is done through coercion, the answer is rather plain. Yet I hesitate to say flatly that Government should not make any transfers, because I think there is in the will of the American people, a humanitarian nature or desire that some sort of aid of this kind should be put forth.

Representative MILLS. How should we characterize our program of development of natural resources? I say how should we characterize, with respect to these questions, our program of natural resources, the development of natural resources? Is that impeding the economic growth, or is it contributing to economic growth? The stockpiling program is an example. Use the stockpiling program, which is part of it, as an example, if you care to. Is that impeding economic growth or is it stimulating economic growth?

Mr. LINDBLOM. I think one has to distinguish between Government spending and particular Government controls and policies. It seems to me one could list and list and list particular Government policies that impede economic growth. But that is a slightly different proposition from specifying that an expenditure impedes growth.

Representative MILLS. There is generally some Federal expenditure to follow in a Federal policy. Maybe we better look at the policy instead of the expenditure program direct. What are some of the policies presently in existence that impede economic growth?

Mr. LINDBLOM. It seems to me one ought to be careful here and one ought to look into particular situations.

Representative MILLS. We are talking about functions.

Mr. LINDBLOM. Yes. A number of the regulatory processes. One could make out a case that a different pattern of regulation of transportation through the Interstate Commerce Commission could remove some obstacles to economic growth. Probably in the regulation of petroleum one might remove some obstacles to economic growth. There are also tariffs.

Certainly tax reform could be justified on a number of points as a way of removing obstacles to economic growth.

Representative MILLS. Including the rate of tax?

Mr. LINDBLOM. Yes.

Representative MILLS. Can you think of any other functions?

Mr. LINDBLOM. Again here you will notice it isn't so much that the performance of the function impedes growth as that the manner of its performance impedes growth. Not taxing, but the way we tax, often impedes growth. We have to regulate railroads, but the way we regulate may unnecessarily impede growth.

Mr. TRESMOTT. I have some comments on housing and the agricultural policy. It seems to me one ought to note in the case of housing whether the promotion of housing, the expenditure by the Federal Government, has not, perhaps, had the effect of possibly building up the cost of housing rather than increasing the housing accommodations that people have.

In the case of agriculture, although I hate to be the devil's advocate on this, though perhaps it isn't the devil's point of view, I must point out that Prof. Gale Johnson, of the University of Chicago, has urged very strongly that our agricultural support program, whatever its other features, has promoted a high rate of technological progress in agriculture.

Representative CURTIS. You mean in order to get around the acreage control?

Mr. TRESMOTT. It is partly a matter of that, and it is partly the matter that they have the money to spend, the farmers have.

Representative MILLS. I think we could all agree that there are still problems in the field of agriculture that have not been resolved as yet, even though there have been large outlays of money.

Is there anything else? Does anyone else desire to comment? Mr. Curtis?

Representative CURTIS. I just happened to think on that agricultural thing, on the one crop that we have not controlled in any way, soybeans, there has been tremendous research and development in that area, and it seems that that is one crop that they keep planting more and more.

Representative MILLS. There is a growing demand for oils, I understand.

Representative CURTIS. That is true, but it has come from the technological development in the use of it. I suspect if they figure out other ways of using corn from those that are traditional, it may be helpful.

Representative MILLS. Gentlemen, as we proceed with our business next year, in legislating appropriations, I take it you would recommend to the Congress in light of the history of expenditures, and recognition of present-day events, that we scrutinize with great care all of these elements that go into our overall spending program.

You would make that recommendation to us, would you, in the light of your studies and the present-day situation?

Mr. LINDBLOM. Yes.

Representative MILLS. You would.

Professor Patterson, would that lead us in the direction of reduced spending?

Mr. PATTERSON. In my opinion, there would be hope that it would lead to reduced spending.

Mr. SOLOWAY. I will do the usual thing and hedge. I think we might be able to cut in some areas, though I think I agree with Professor Lindblom. I would like to see expenditures reviewed. In other words, approach each spending program with some degree of objec-

tivity and try to determine whether it has a role to play in the current scene or not.

Representative MILLS. And also whether it would impede economic growth?

Mr. SOLOWAY. Yes. I think it is clear that economic growth cannot be separated from national defense, in the circumstances in which the Nation finds itself.

Mr. TRESCOTT. I certainly endorse the objective of scrutiny. The more objective evaluation one made, the more likelihood it would be that one would end up spending the same amount of money for different things.

Representative MILLS. There would be an adjustment with respect to the total figure?

Mr. TRESCOTT. Yes.

Representative MILLS. Thank you, gentlemen, for your appearance this morning and the contribution you have made to our thinking with respect to fiscal policies, and particularly with respect to Federal spending.

Thank you so much.

The committee will stand in recess until 2 o'clock this afternoon.

(Thereupon, at 12:25 p. m., the subcommittee recessed, to reconvene at 2 p. m., the same day.)

AFTERNOON SESSION

The hearing was resumed at 2 p. m., pursuant to the recess.

Representative MILLS. The subcommittee will come to order, please.

I want to congratulate each of the contributors to this section of our study of Federal expenditure policy. The Fiscal Policy Subcommittee asked you to prepare papers on what must certainly be one of the thorniest questions in public finance, "What objective standards are there for determining what Government should do?"

Let me assure you the question is even more troublesome for the legislator and Government officials. Moreover, even though it is not generally stated so bluntly in policymaking councils, it is the basic question in the annual debate over the Federal budget both with respect to the total and to individual spending programs.

As I indicated this morning, this subcommittee's approach to the study of Federal expenditure policy is the effectiveness of spending programs in contributing to attainment of the Employment Act objective of a high and steady rate of economic progress. Our basic inquiry in this study, therefore, is: since Government functions require the use of resources, and since these resources can be used in the private sector of the economy to contribute to the attainment of economic progress, what standards can be used to guide decisions about the division of resources between private and public sectors, and how can these standards be applied in specific cases.

Your papers in the compendium have been most helpful both in suggesting positive approaches to answering this question and in pointing out the major reservations and difficulties involved.

As indicated this morning, we will proceed in these hearings in the order in which the papers appear in the compendium. At the start of each session, each panelist will be given 5 minutes in which to summarize his paper, and we will hear from each panelist without inter-

ruption. Upon completion of the opening statements, the subcommittee will question the panelists for the balance of the session.

I hope that this part of the session can be informal with all members of the panel participating, commenting on papers presented by other panelists and on subcommittee members' questions.

Our first witness this afternoon is Mr. Solomon Barkin, director of research, Textile Workers Union of America, AFL-CIO.

Mr. Barkin, you are recognized for 5 minutes.

Mr. BARKIN. Thank you.

STATEMENT OF SOLOMON BARKIN, DIRECTOR OF RESEARCH, TEXTILE WORKERS UNION OF AMERICA, AFL-CIO

Mr. BARKIN. I should like to highlight several of the comments and observations in my paper.

The primary contention is that governmental functions must be defined in terms of governmental responsibilities, and throughout the paper, my argument is that government has an obligation to intervene when society fails to use its resources of men and material fully or to operate effectively. When some important part of the private economy fails or is inadequate, the question is no longer whether it is a private or public responsibility to perform it. The question is: What combination of private and government, or government action solely, will set it right.

The expansion of government duties caused solely by the depression, the 1929 depression, and World War II was followed by the subsequent elimination of such temporary functions.

But the overall duties which have now been adopted represent a distillation of a basic level of government functions which we can expect will remain with us.

In concerning ourselves with the functions of government, the term "expenditure" is an inadequate measure just as previous measures in terms of employment are an inadequate measure of governmental function. Government today often operates in various areas with minimal governmental expenditures by influencing the conduct of private business and private consumers.

Also we must be aware of the fact that private society at the present time consists of large corporate and other collective groups.

The issue is no longer between government represented as a mammoth agency as against the individual; it is a matter of choosing between collective agencies which exist in our society. The corporation is a collective agency. The philanthropic agency is such an institution. The trade union is such an institution, merely to mention a number. And we are now influencing economic behavior not merely by direct governmental operations, but also by indirect policy declarations, redistribution of income, or incentives of various kinds to business and to consumers.

We are effecting expenditures by incentive and various other similar types of policy. So, to the language of the early 1950's when we heard much debate on the subject of the welfare state, we must add the new phrase, namely, that we are living in an "incentive state." The incentive state often requires very few additional financial outlays.

As a matter of fact, forgiveness of taxes is often as effective as a direct financial inducement.

I also proceed to the conclusion that goods are not necessarily inherently private or public; that the legislative will expressing public opinion determines whether a good is public or private. If the people, through their legislatures, decide that it is public, it automatically becomes a public function. There is nothing inherent in a service which necessarily makes it exclusively private.

During the depression, we assigned to government the function of reviving a moribund economy and the function was primarily that of mitigating or correcting failings.

During the war, government adopted new functions of helping us plan for the successful conduct of the wartime operation in directing our economy.

In the postwar days, we have a new philosophy. It is no longer merely a philosophy of assigning to government the function of correcting failings, but a more positive function, namely, of inducing the proper degree of stabilization and economic growth and equity within our society, which will assure us the long-term end goals which we have set for ourselves.

So that in the paper I set forth some of our policies not only of full employment and growth, but also stability, equity, efficiency, and conservation. And in the concluding sentences, I say that these, then, are some of the positive functions of government. They are a far cry from the modest list of governmental responsibilities recognized before 1929.

Government has an obligation to help realize these new objectives. It cannot sit back prayerfully and hope that these ends will be realized. It must determine whether the state of well-being conforms to these purposes. If there are gaps in our society and economy as occurred during the depression, or if the performances do not meet our public tests, as they do not at the present time, it is the obligation of government to intervene and help the citizenry realize these ends for which the society has been created.

Representative MILLS. Thank you, Mr. Barkin.

The next panelist is Prof. Walter W. Heller, department of economics, University of Minnesota.

STATEMENT OF PROF. WALTER W. HELLER, DEPARTMENT OF ECONOMICS, UNIVERSITY OF MINNESOTA

Mr. HELLER. Mr. Chairman, my paper for these hearings reviews some of the contributions economics can make to the process of defining the proper sphere of government activity in our economy. In this sense, the paper is itself a summary. Perhaps I can best serve the subcommittee's purpose by examining these contributions illustratively in terms of the budgetary problems that are currently uppermost in our minds in a satellite-ridden world.

How do we translate the Soviet scientific challenge into economic guideposts for government budgetmakers? First, under the impacts of Sputniks I and II, we have become dramatically aware of our position—the position of all of us—as indirect or third-party beneficiaries of scientific training and basic research (and their broad

underpinnings of general education). Russian scientific and military advances have greatly magnified the size—as well as our awareness—of these indirect benefits, the benefits that do not show up as economic advantage to particular individuals and therefore do not show up in the market prices which the private buyers of scientific brains and basic research are willing to pay. The only economic instrumentality (apart from philanthropic foundations and the like) that is able fully to assess and pay for these indirect benefits on behalf of all of us is the government. It and it alone can take the full benefits into account and balance them against the costs to arrive at the correct decision as to where our maximum advantage lies in the economic use of our national resources.

Second, as to the question of which level of government should finance the expansion of our scientific education and research program, economic principles give an unequivocal answer: The Federal Government. This answer is not based on the proposition that State-local government lacks the necessary economic resources—though differences in regional ability to pay buttress the case for Federal action (Delaware's top per capita income of \$2,513 in 1955 was a little over $2\frac{1}{2}$ times the low of \$946 in Mississippi). Nor is it based on the generally accepted conclusion that the Federal Government is the economically more efficient unit to collect most taxes—it is, but we are more than willing to pay the price of some inefficiency to maintain responsible, vigorous, and independent self-government at the State-local level. The much more basic point is that the indirect benefits to be weighed transcend all State and local lines. The ends we seek through the newly urgent education and research program involve our national security and prestige, or even our national survival. Only the Federal Government has a broad enough field of vision to reach a rational economic decision in such terms as the following: "Adding up all the benefits, the Nation should devote X percent of its resources to this effort, and Government should finance Y percent of it." No other government (among our 102,000 units in the United States) can make that statement.

Third, given the scope of, say, the scientific training phase of the program, what form should it take? Economic principles suggest a combination of outright educational grants and loans to the trainees: (1) grants to reflect the stake all of us have in the brainpower and brainwork of those to be trained and (2) loans, perhaps interest free, to reflect that part of the benefit the trainees themselves will read through enhanced earning power. (Whether loans—combined with grants—would provide a powerful enough incentive to achieve our national objective would remain to be seen.)

In terms of current economic policy, the Russian successes have immeasurably strengthened the case for the President's program (or alternative programs) for Federal aid to schools and at the same time suggested a shift in priorities (1) from buildings to brains, (2) from construction to students and teachers, and (3) for the time being at least, from nonscience to science subjects. I say "immeasurably" advisedly. The economist cannot say exactly how much should be spent, yet, he can provide useful guide posts for straight thinking on this basic question and a more definitive answer to the level-of-government question.

This brings us face to face with another basic problem the Federal Government faces in its defense and defense-related expenditure decisions: how far can these expenditures be pushed without exceeding the limits of our economic capacity? Though there is no absolute answer to this question, experience of the very recent past provides a relevant answer that seems entirely sufficient to the purpose at hand as long as we are talking about budgetary increases of a few billions rather than tens of billions of dollars. In 1953—a year I select because it was one that was relatively peaceful, free of direct controls, and characterized by stable prices—Federal expenditures amounted to roughly 21 percent of our gross national product. Currently, these expenditures are running just over 17 percent of GNP. Four percent of our current national output is nearly \$18 billion. Even if we were to subtract the rise in State-local expenditures over the same period (about \$8 billion), we emerge with a figure of nearly \$10 billion by which the Federal Government could increase its spending without pushing government's share of our total output beyond the 1953 level. This 1953 benchmark tells us this: if national security and prestige demand it, our free economy could readily supply 5 or 10 times the 1 to 2 billion dollars of additional defense and defense-related education and research on which public discussion to date has been centered. The cost would be in economic frills, not economic freedom. The present limits to our defense effort, then, may be found in the hearts and minds of men, but hardly in their pocketbooks.

Finally, let me say that economists must approach these problems with a great deal of humility. They have sharpened—and will continue to sharpen—their tools for determining what is economically sensible as to (1) the scope of government activity, (2) the level of government to conduct and finance particular functions, and (3) the instruments—government production, private contracting, tax subsidies, loan programs, and the like—to be used in accomplishing particular objectives. But having done this much, economists must in the last analysis defer final judgment to those who can take into account not only economic balance sheets and profit and loss statements but the basic values we wish to preserve in our democratic system. In particular, economics has to accept restraints arising out of basic desires for economic and political freedom, out of political decisions as to defense requirements, out of a national choice to inculcate certain values during our educational process, out of our trust in government to dispense justice and collect taxes without individual tyranny. None of these factors lend themselves to cold economic analysis. Decisions on these we entrust to our elected representatives, being thankful that they give economics its rightful place in the decision-making process.

Representative MILLS. The next panelist is Prof. Richard A. Musgrave, department of economics, University of Michigan.

STATEMENT OF PROF. RICHARD A. MUSGRAVE, DEPARTMENT OF ECONOMICS, UNIVERSITY OF MICHIGAN

Mr. MUSGRAVE. It is difficult to condense into a 5-minute statement a problem which in the first place hardly lent itself to discussion in a brief paper. The task is complicated, moreover, by the breathtaking events related only too closely to the matter of public expenditures which have occurred since my paper was prepared.

Public expenditures are needed because the market mechanism, while ideally equipped to provide for the satisfaction of most of our wants, cannot provide for all of them. There are certain wants which must be provided for through the budget. This does not mean that the goods and services in question must be produced by government, although some of them are; my main point is that they must be paid for in taxes rather than through consumer purchases in the market. This is so because these goods are consumed in equal amount by all, so that all individual consumers are benefited whether they contribute to the cost or not. Voluntary bidding, which is the essence of the market mechanism, will not be forthcoming. A political process is needed to determine these wants, involving decisions by majority vote and compulsory contributions in accordance with a common tax formula.

This, in a nutshell, is the problem of providing for the satisfaction of social wants. In my paper, I allow for certain other functions of budget policy, which are not less important, including distribution readjustments and stabilization. In the paper, my emphasis is on pointing out that these are essentially distinct objectives and that at least looked at from a logical point of view, they can be solved without conflicting with each other.

These additional functions must be added to the total picture, but I shall not comment on them here. Rather, I wish to restate certain propositions regarding the central function of providing for the satisfaction of social wants.

I say "central" because it is most interesting from the point of view of economic theory. In that sense at least, it is the central issue.

1. Social wants involve certain characteristics which require that they be provided for through the budget. As such they differ from private wants which may be satisfied and paid for through the market. The fact that this difference exists does not establish a presumption that social wants are either more or less important than private wants.

In other words, we are easily given to considering the national income that is produced by the private sector as being the primary factor in the economy, and to thinking of the budgetary activity as diverting part of the output that has been produced.

I think this is a fallacy. We have to look at both as inherently interrelated parts which contribute equally in their way to the total want satisfaction.

2. The proper allocation of resources between the satisfaction of social wants and the satisfaction of private wants is that which selects the most important wants of both types, and leaves unsatisfied the less important wants of both types. A budget which does this may be called an optimal budget.

3. This concept of optimal budget is concerned just as much with avoiding too low a lower limit as with avoiding too high an upper limit to public expenditures. The concept of taxable capacity by the very semantics of the term is concerned with the upper limit only. It is a biased concept designed from the outset to give a biased answer.

4. At the same time, note that the division of resources between the satisfaction of private and of social wants is not only a question of which final wants are to be recognized. The satisfaction of social wants, in scope and content, may affect the functioning of the market

system. Public services may improve the efficiency of private enterprise in many ways. Indeed, the private-enterprise sector of the economy could not function without a minimum level of public services. Taxes, if excessively high, and especially if ill designed, may interfere with the functioning of private enterprise. Thus, the proper scope of public services or satisfaction of social wants must be determined with due allowance for its repercussions, favorable and unfavorable, on the private-enterprise section of the economy.

Leaving aside, now, these somewhat abstract matters of principle, let me add a brief comment on the current scene. We have heard again and again, over the last 2 or 3 years, that tax reduction is imperative for the health of our economy. I may add that, in listening to the recent addresses by the President on the budgetary outlook after Sputnik, especially toward the end of the first address, I again noted the concern over the health of the economy, the feeling that there is a really serious conflict between maintaining a healthy economy and doing what would be desirable on defense grounds.

Now, in a period of high employment, this statement that tax reduction is imperative is equivalent to saying that the level of public expenditures is in excess of what a healthy economy can sustain. I do not wish to argue here that all expenditures included in the current budget are essential, nor do I wish to argue that they take the best possible form. Nor do they wish to argue that there may not be essential expenditures, including civilian items, which are omitted.

I do want to say that the popular and, let me add, in view of the discussion in the last Congress, thoroughly bipartisan proposition that tax reduction is imperative for the health of our economy is without basis in fact and without economic analysis.

It is our version of the Marxist fallacy that capitalism will succumb by its own weight. That this proposition, fallacious as it is, should have been permitted to interfere with meeting national requirements for defense and scientific progress, seems a great tragedy to me. I cannot help but feel that such was the case.

Recent developments, to return to my earlier terminology, have given a new importance to certain social wants. These new social wants must be recognized as of overriding importance, and the net costs must be accepted. These costs may take the form of no tax reduction or, to say the forbidden word, increased taxes. They may take other forms not directly connected with the level of governmental expenditures, such as the change of scientific talent from improving the glamor of merchandise to basic research.

In terms of resource analysis, they may take the form of reduced private-resource use and, of course, they may take the form of reduced public expenditures on nondefense purposes.

It would have been a pleasure to forgo this illustration relating to sputnik, but there could have been no setting more dramatically designed to focus on the importance of social wants than that produced by the avalanche of Russian progress bared during recent weeks.

Representative MILLS. Thank you.

The next panelist is Prof. Kenyon E. Poole, department of economics, Northwestern University.

STATEMENT OF PROF. KENYON E. POOLE, DEPARTMENT OF
ECONOMICS, NORTHWESTERN UNIVERSITY

Mr. POOLE. Mr. Chairman, we can easily be too pessimistic about the effectiveness of the Federal budgetary process in keeping Government expenditures at the level which makes the maximum contribution to economic growth and social welfare. Public-information mediums and interested parties can be counted upon to call attention to any really serious misallocation of resources between the public and the private sectors of the economy. Nevertheless, the following points are to be taken into account:

1. Two extreme views on the proper rate of growth of Federal spending in the framework of total spending should be rejected. One is that the secular rise in gross national product entitles the Federal Government to proceed with additional spending programs on some kind of automatic basis. The other is the view that, because Federal spending is high, it has, therefore, been rising too rapidly. Both of these views make the unwarranted assumption that the Federal Government is entitled to share in some definite fashion in the annual increments to national product. They both overlook the fact that intelligent budgeting of resources requires continuous review of economic objectives and constant revision of Federal budgetary decisions. The first tends to short-circuit the budgetary process, while the second abstains from any rational thought on the subject whatever.

2. A major problem in evolving Federal spending programs which contribute to economic growth is to distinguish between those which should be classed as social consumption and those which actually increase the net capacity (taking account of the impact on the contribution of the private sector) of the economy to produce goods and services. A difficulty is that many programs have both characteristics. If we are serious about using the Federal fiscal system to encourage optimum growth rates, it would appear necessary to draw a more careful distinction between public consumption and public investment than we have sometimes done in the past.

3. A large segment of public opinion seems to be fairly united on the view that tax rates, especially income-tax rates, have approached peacetime limits. This could bias public-spending decisions toward the expansion of existing programs to the detriment of new projects that might require increased tax rates. That is, a possible consequence could be to favor a rise in Federal expenditures under those programs which expand automatically in response to a growth in population. Any such earmarking tendency would work against the interests of many separate programs which, in the aggregate, might otherwise have contributed greatly to the Nation's economic power. This would mean that Government expenditures would tend to react passively to economic growth, rather than actively contribute to the rate of growth.

4. It is not being argued here, of course, that public support for rising Government expenditures financed by higher tax rates is out of the question. If a significant rise in income-tax rates should be found necessary, it would be desirable to consider the possible effects

on economic stability. Account has to be taken of any adverse effects on private investment and willingness to put forth effort and, hence, on the rate of growth in the private sector that are produced by higher rates.

These effects would be an offset to any favorable impact on growth exerted by the increase in public expenditures.

5. If income-tax rates were forced significantly upward, great pressure would be exerted in the direction of softening their actual impact by individuals who are in a position to benefit from such concessions as percentage depletion, accelerated amortization, expense deductions, and conversion of ordinary income into capital gains. But this would merely increase the burden on individuals and firms who were unable to escape the full effects of the nominal rate structure.

Thus, a depressive impact might be produced on total investment that would provide a negative offset to the contribution to growth made by the public-expenditure programs. An inflationary effect might be produced, on the other hand, if excise-tax rates were increased. This would tend to push up the consumer price index, and, under easy-money conditions, would stimulate wage rises and price markups. The combined effect of using both the income-tax and excise-tax increases to finance additional programs would be to create a mixture of soft spots and rising prices. At higher rates of tax, the distortions might have a significant adverse impact on investment and growth.

6. No narrow concept of efficiency in the production of Government services suffices as a basis for evaluating the contribution of spending programs to economic growth and stability. Efficiency should be measured primarily in terms of the validity of the objectives of the programs themselves. In any event, efficiency in the private sector is also not always easy to judge.

7. A high floor under Federal spending increases the probability of the maintenance of full employment, and thus encourages private investment. But private investment will be discouraged if on the appearance of inflationary tendencies expenditure control instruments are applied to the private sector and not to Government spending. This is a defect of fiscal and monetary policy as the major control instruments.

Representative MILLS. The next panelist is Mr. Herbert Stein, director of research, Committee for Economic Development.

STATEMENT OF HERBERT STEIN, DIRECTOR OF RESEARCH, COMMITTEE FOR ECONOMIC DEVELOPMENT

Mr. STEIN. I have written a very short statement and I would like to make a couple of prefatory remarks.

First, I would like to congratulate the subcommittee and its staff on this excellent compendium they have prepared. I personally have found this the most helpful of all the reports that the Joint Economic Committee has printed, and I believe that a great many research subcommittees of CED are going to find it useful.

Representative MILLS. We appreciate your including the committee and the staff in your commendation. But in order that the record be absolutely correct, the committee and staff are given full credit too, but of course the panelists furnished the material in the compendium.

They are the ones that we think are entitled to receive the commendation.

Mr. STEIN. I am sure a great deal of planning by the staff was necessary.

Second, I want to say that a paper was included in this compendium by Mr. Frazar Wilde, chairman of the CED research and policy committee, who noted that he was expressing his own views although within the general framework of CED's statements. Mr. Wilde is unable to be here today. I am here expressing my own views, I hope within the spirit of Mr. Wilde's, but I am not speaking for him.

I suppose that something like 80 or 90 percent of the expenditures of Government in the United States are for functions that most people would accept as being proper functions of the Government. There may be serious differences of opinion about the scale on which some of these functions are performed, about the level of government at which they are performed, and about the efficiency with which they are performed. But with respect to the overwhelming bulk of expenditures, the question of propriety of function does not arise.

Still there is an important amount of current expenditure about which one may seriously question whether it serves the proper functions of Government. And there is probably an even larger proportion of proposed expenditure of which this is true.

As I look at the expenditures that seem to me not to be for proper functions of Government, they fall mainly in the class of what I call random redistributions. These are expenditures that transfer income from taxpayers generally to groups of beneficiaries who have not been selected either on the basis of their income status or on the basis of the desirability of encouraging their particular economic activity. What I have in mind are expenditures for aid to agriculture, for subsidizing the post office, which really means for subsidizing the users of the mails, for supporting the residential mortgage market and at least in part for purchase and stockpile of minerals.

The papers submitted to this subcommittee have emphasized two criteria of proper Government function. One is to promote certain economical uses of resources that for various reasons would not occur in response to private market forces. The other is to make the distribution of income less unequal.

The programs to which I want to call attention cannot pass either of these two tests. The largest is agriculture.

Now, it is true that many persons engaged in agriculture have very low incomes. But there is also a large proportion of whom this is not true. Moreover, our most expensive agricultural programs do not benefit farmers in proportion to their poverty, but more nearly the reverse. The lowest income farmers get little out of it. As equalizing devices, our farm programs are extremely wasteful. They transfer much income from lower income consumers and taxpayers to higher income farmers.

Viewed as a measure to improve the economic allocation of resources, the farm programs are even worse. There can hardly be any doubt that our economy would be more productive if we had fewer people in agriculture. But the effect of our farm programs is to retard the desirable movement.

Much the same argument applies to the other programs I have mentioned. They do not provide benefits in any consistent relation to income. And their effects on resource allocation are adverse.

This subcommittee on earlier occasions has looked into the problem of tax loopholes. In the income tax this means situations in which tax is not levied equally on persons with equal incomes. The cases I have been mentioning might be called expenditure loopholes. They are cases in which benefits are paid to certain recipients by special standards not applied to the rest of the population. They are wasteful of tax money and wasteful in their effect on the direction of economic activity.

In general, I would say that I see little room for disagreement about the formal principles for determining what are appropriate Government functions. But I do see much room for disagreement about their application. In my opinion, much of the error in the application of these principles arises from erroneous views about the nature of our economy or our economic and political situation, including failure to give sufficient weight to the following facts:

1. The absolutely necessary functions of the Federal Government require the Government to be of huge size and complexity. The addition of more functions adds to already tremendous problems of management and decisionmaking and reduces the efficiency of the whole process.

2. The productivity of capital in private uses in the United States is very high.

3. The American consumer is literate and sophisticated and needs little help from the Government in deciding what to do with his income.

4. The level of necessary Federal spending is sufficiently large to permit by appropriate tax policy the generation of any debts conceivably helpful on stabilization grounds without additional spending for that purpose.

5. The business system is highly responsive and efficient in the satisfaction of consumer demands.

Probably the most important cause of excessive expansion of Government functions is not error, but the unequal application of influence in the decisionmaking process. We know that a great many expenditure programs of Government are in the budget largely because a minority group wanted them very badly and the opposition was diffused and not similarly intense in its views.

Representative MILLS. Will you convey to Mr. Wilde our regret that he could not be with us this afternoon, and our thanks that in view of the fact he could not be here, that you should be available?

Mr. STEIN. I will do that.

Representative MILLS. Our next panelist is Prof. Proctor Thomson, department of economics, Claremont Men's College.

You are recognized for 5 minutes.

STATEMENT OF PROF. PROCTOR THOMSON, DEPARTMENT OF
ECONOMICS, CLAREMONT MEN'S COLLEGE, AND CLAREMONT
GRADUATE SCHOOL

Mr. THOMSON. Most of the great problems of social policy in this century involve the division of labor between Government and the market. The line which divides these areas is neither intuitively obvious nor eternally fixed, but must be decided by free discussion among the citizens of a free society.

What are the basic grounds which sanction the acts of responsible government in a liberal society? To put the question in another way: What can government do that the free market cannot do; and—just as important—what can the market do that government cannot or ought not to attempt?

Both economic efficiency and political liberty depend on a rational answer to this vital question. Moreover, the irresistible tendency to extend the power of government in this century of perpetual crises forces each generation to examine this issue anew.

I have divided the activities of government into two broad classes: First, those which regulate the actions of the private market; second, those which use up resources or affect the distribution of income, and appear in the Federal budget.

First, then, the framework activities of government.

While framework activities make no very great demand on our national resources and are of little consequence to the budget, they profoundly affect the private market, so that the grounds which sanction them deserve a brief exploration.

Rules of the game: Government must obviously establish and enforce the rules of the game. It must define the law of contract, prevent fraud, and establish machinery for settling disputes.

Secondly, defining the groups: The inhabitants of a particular territory, acting through their government, have the right to define the limits of the group by restricting immigration from other territories.

Thirdly, freedom of entry: Freedom of access to economic opportunity is both an implication of political democracy and a necessary condition for economic efficiency. Government must promote freedom of access by discouraging the growth of restrictive practices on the part of producers and trade unions.

Differences between private and social costs: The private economy allocates resources correctly so long as market prices cover the full costs or benefits of some activity or commodity. But, as illustrated by the case of the manufacturer whose smokestacks pollute the neighborhood—no trivial example for a southern California, I might add—private and social costs often diverge. If the divergence is important, public intervention is necessary.

For example, government may have to restrain or modify the forester's right to cut down a stand of timber in order to protect

farmlands from erosion, or it may limit the opportunity to broadcast radio and TV signals over a given frequency. But a radio and TV license being a partial patent of monopoly, it is surely contrary to either policy or economy to give these advantages away. They should be sold on the open market to the highest bidder.

Finally, economies in pursuing interests: The costs of acquiring knowledge of the market are frequently so high that, in the absence of outside aid, the sensible man decides that it is more efficient to remain ignorant. Government often provides the outside aid the individual needs to operate effectively, but its paternalistic role is liable to abuse, if not used with great restraint.

Allocative activities: Despite the great variety and complexity of Government services which use resources, the fundamental grounds on which they rest are relatively few in number.

Indivisible services: Government provides essential services which cannot be divided and sold and which must be available to everyone if available to anyone. Examples are flood control, lighthouses, pure research, and police protection. The most important member of this group is national defense.

Though indivisible services cannot be sold on the market, the resources to produce them ought to be purchased through the market. In particular, military manpower ought to be hired rather than drafted. In an age where the soldier must command a formidable arsenal of technical weapons, these reluctant defenders are scarcely the equal of a seasoned cadre of professionals recruited by voluntary inducements.

Differences between private and social benefits: The production and consumption of some particular item may benefit people who do not participate in the transaction, so that the private market, if left to its own devices, would not produce enough of the things that give rise to social benefits. Education is an outstanding example, for, in a democratic society with a universal franchise, education is a necessary condition for wise and responsible exercise of political freedoms.

Operating natural monopoly: To secure efficient use of resources, Government ought to regulate or operate natural monopolies. At the Federal level, the Post Office Department is an outstanding instance of Government monopoly. To abolish the postal deficit, which acts as a subsidy for advertisers, publishers, and farmers, the Post Office Department ought to be put on a business basis and set free to establish its own rates without let or hindrance from Congress.

Furthermore, if the postal business were opened to private enterprise—and there is little reason, save the appeal of tradition or the desire for patronage, that this step should not be taken—the quaint and antiquated devices by which, it is sometimes alleged, the post office conducts operations would be put to the test of the market, while prospects of private monopoly would be counteracted by public competition.

Miscellaneous activities, for example, price fixing: To win friends and influence voters, Government engages in a number of price-fixing activities which, in the main, benefit particular producers at the expense of the general consumer, and, as mentioned by the previous speaker, of these adventures, the most expensive and notorious is price support for agricultural products.

Parity prices on basic farm commodities represent an income subsidy to wealthy farmers financed by a sales tax on low-income, city consumers. In the long run, the subsidy merely slows down the rate of economic development by regarding the movement of labor from the farm to the city.

The funds devoted to this costly and embarrassing nuisance—somewhere between \$20 billion and \$30 billion over the last three decades—could have paid for the education of several regiments of first-rate scientists and financed a whole platoon of interplanetary missiles. With what we spent to raise its price, we could have sown wheat on the moon.

Representative MILLS. Thank you, Mr. Thomson. I might interpose to tell you that we farmers have been talked about so much that our hides have gotten almost as tough as those on us politicians.

I am pleased to note the considerable differences in approach to the problem we are dealing with this afternoon taken by the participants. Each of you, I think, has suggested an approach that has its own virtue in focusing our attention on the problem, even though you have different conclusions about the standards which should determine Government activity.

Perhaps we can find an area of agreement on it among the panelists.

I want to give you what I think is a highly exaggerated example, for the purpose of seeing if we are in agreement at any point. Suppose that the President's forthcoming budget message for the fiscal year 1959 were to call for a high expansion of defense spending, say, \$10 million. Let me hastily interpose that I trust this amount is, in fact an exaggeration, and, certainly, I have no advance information as to the size of the defense budget.

Let me also assume that, quite apart from this proposed increase in military spending, the prospects are for continued high levels of employment and economic activity, generally. Let us also assume that the proposed \$10 billion increase in defense expenditures is generally agreed to be a minimum amount, on the basis of the most expert military views of our defense needs.

Under these circumstances, how should the expenditure policy-maker approach the problem? Should he attempt to finance the expenditure by equivalent reductions in other Government spending, in private spending, or both?

What kind of standards would he rely on to answer these questions, from the point of view of least interfering with a high rate of growth in productive capacity and a stable price level? In other words, suppose you gentlemen are a combined congressional committee which decides upon appropriations and taxes; what are your recommendations under these circumstances, and how do you arrive at them? Would any one of you designate himself as chairman of the committee for purposes of leading off?

Mr. MUSGRAVE. I will try to lead off, and then I will return the chair to the chairman, if I may. We start out with the assumption that the net increase in defense expenditures will be \$10 billion, which is to say we assume that whatever can be done to economies in the defense budget has been done already and that this \$10 billion is net. In other words, this is the \$10 billion which we must spend after we have unified the services and done all these things which we should.

Representative MILLS. All that is in the assumption; yes.

Representative CURTIS. This is purely a hypothetical problem.

Representative MILLS. Hypothetical as to degree only.

Mr. MUSGRAVE. Now, then, to set the stage, I would say, "All right, there have arisen additional social needs of \$10 billion, which must be met."

Now, if you have to spend an additional \$10 billion for defense, that much resources must be released from other uses to be put into defense. This would have to be done, of course, whether you tax, or whether there is inflation, or whichever way you do it.

Furthermore, we would all be agreed that if there is an additional need for resource withdrawal for defense purposes of \$10 billion, you have got to get these resources out of the satisfaction of other wants. If you assume for the sake of argument that your resource allocation is just about right, to begin with, you would say, "Well, we would have to cut everything else enough so that it will amount to \$10 billion."

Now, let me assume for the sake of argument that what we economists in our economic jargon call income elasticity—namely, the extent to which demand increases or decreases as income changes—is the same for privately made expenditures and for publicly made expenditures. Then we might argue as follows:

Total governmental expenditures for civilian purposes amount to something like \$50 billion, and the gross national product, including expenditures for other things after defense—that is, the total national product net of defense expenditures—amounts to, say, something like \$400 billion. This gives us a ratio of civilian-governmental expenditures of \$50 billion to private expenditures of \$350 billion.

So we might start out with the hypothesis that if we had an even cutback, we would take about one-eighth of this out of Government expenditures and about seven-eighths of this out of private expenditures, which would mean that we would cut governmental expenditures back by something like \$1.2 billion, and that we would raise taxes sufficiently to cut private expenditures back by something like \$3.8 billion.

Now, of course, it might be more or less, but I want to make the point that the fact that certain Government expenditures are increased establishes no logical conclusion that, therefore, other Government expenditures must be reduced accordingly.

In other words, resources for defense expenditures can come out of both governmental and private expenditures. I would say, at least to start off the argument, that if we prorate it in about this fashion, let's think of where we could make the cuts in governmental expenditures amounting to about \$1.2 billion. And this, of course, must be expenditures which involve resource use so they cannot include your random transfer payments such as farm relief.

Representative MILLS. Professor Musgrave, will you review your mathematics a little bit.

I think you are leaving us short about \$5 billion.

Mr. MUSGRAVE. Well, I was saying that there has to be a release which is worth \$10 billion. I said \$1.2 billion, or one-eighth, of this would come out of governmental budgets, and \$8.8 billion would come out of private budgets. So, we would have to increase taxes sufficiently to cut private expenditures by \$8.8 billion.

Thank you for correcting me.

Representative MILLS. Under this hypothetical case, which I still want to point out is hypothetical only as to degree, in my opinion, you would reduce nondefense spending by \$1.2 billion.

Mr. MUSGRAVE. I would say this would be where I would start out; yes.

Representative MILLS. Yes. That is what I am getting at. We would think in terms of that.

We would think in terms of increasing taxes by \$8.8 billion. We would end up with a balanced budget, as you would want us to do.

Mr. MUSGRAVE. Well, no, I am not interested ever in precisely balancing the budget. In order to get my \$8.8 billion reduction in private expenditures, I would have to increase taxes by a little more than that.

Representative MILLS. My point is that now, since you are sitting as a congressional committee in this hypothetical case that I am giving you, you are coming up with an increase in taxes and a reduction in governmental spending in other areas equal to the amount of the increase in defense spending.

Now, is that your recommendation also with respect to whatever the actual situation may be that is presented to us in the budget in January of 1958?

Mr. MUSGRAVE. It would depend very much on the business outlook, Mr. Chairman.

During the last few years, I felt strongly that we should not reduce taxes. I am not so sure at this point that I would want to say that it may not be appropriate in the course of the coming fiscal year to have taxes reduced, meaning thereby to have a deficit.

I think that economic conditions may well be such that some deficit will be called for. To the extent that this deficit will be called for to maintain an adequate level of income, I would increase taxes by less than I just indicated.

Representative MILLS. Well, under the circumstances that were given in this hypothetical situation, we were to assume the continued rise of economic activity, which may not be, of course, the situation next year. But if there is a continued rise in economic activity next year, do you take it that sound policy would dictate that whatever increase in defense expenditures are approved by the Congress finally, to the extent that those increases are not compensated by reductions in other areas of Government, that the Congress should increase taxes in order to avoid deficit financing in the coming fiscal year?

Mr. MUSGRAVE. If your assumption as to business conditions is met, that is absolutely correct.

Representative MILLS. Well, we have this situation, which is not hypothetical right now, as I see. We have the situation of a sag or downturn, or however we want to refer to it, in personal income and in collection of excise taxes that may well, unless changes occur between now and the end of the fiscal year, result in us not taking in the \$73.5 billion that the Budget Bureau is predicting in its midyear release of October, but some \$800 million or \$1 billion less. At the same time, and before we have begun any program of enlarged spending for missile development, we find that the midyear estimates of expenditures of some \$72 billion, released the 1st of October, are under actual spending, and that that rate of spending may be \$72.5 billion,

or more, depending upon the extent of our buildup in the missile program in this fiscal year.

The \$72.5 billion may well exist without any reference to the increase in the missile program.

Now, that puts us in the position of looking forward to the end of the fiscal year with very little surplus, if any, without regard to the portion of the President's budget message for fiscal year 1959 that may affect spending in the remainder of fiscal 1958.

Are you saying that conditions are such as to lead you to believe that if we find early in the year of 1958 that there is a possibility of a deficit with respect to fiscal year 1958 or 1959, that we endeavor to take action first of all by trying to bring about some reduction in some phase of our Federal spending not related definitely to defense, and, secondly, by increasing taxes to avoid that deficit?

Would that be your recommendation?

Mr. MUSGRAVE. Mr. Chairman, if by the beginning of the year—let's say by January—I were to find that you have unemployment of, say, 4½ million, as many people seem to estimate—

Representative MILLS. By the 1st of January?

Mr. MUSGRAVE. By the 1st of January; yes. If I would then find—

Representative MILLS. Pardon me for interrupting you, if I may at this point.

What do you mean when you say 4½ million unemployed? Is a reduction in employment of, say, 1,100,000 to be the result? Would that result in it?

I have seen estimates that there will be a reduction in the number of jobs.

Mr. MUSGRAVE. Yes. This would be a seasonally unadjusted figure.

Representative MILLS. But it would not represent that many less jobs? It would represent the increase in the number of people available for jobs for whom there are not jobs, would it not? So that we might have that situation even with 1½ million less jobs?

Mr. MUSGRAVE. That is correct.

Representative MILLS. Thank you. Pardon my interruptions.

Mr. MUSGRAVE. Now, if at that time I were to find that the business outlook during the year, even allowing for some increase in Federal expenditures, continues to be on the slack side, then I would say we ought to set our taxes in such a way that we get a deficit by the summer or second half of the year.

Now, I would hope that, assuming sufficiently drastic action in easing the credit situation, which I think certainly should come first, I would hope that, by the beginning of the year, the outlook would not be so pessimistic that I would have to argue, say, for increasing Federal expenditures by \$10 billion without raising taxes.

But it may well be that it might be desirable to have some degree of deficit, say, \$3 billion or \$4 billion. I think it has to be decided at that time.

And if I may just add this: If I were a legislator, I would try tremendously hard to find some sort of an arrangement by which I would not be forced to predict the necessity for a tax cut too far in advance. I would try very hard to provide for some sort of flexibility.

What I would like to see would be for Congress to enact a provision for some flexibility in tax legislation which would leave open some

possibility of adjusting the situation later, depending on how conditions develop. But I would say, in that case, I would want some degree of deficit. But I would hardly think it would be \$10 billion.

Representative MILLS. Mr. Stein, do you want to comment on this question?

Mr. STEIN. I would like to make a point, with which, I am sure, Mr. Musgrave will agree.

His answers to your basic question were all put in when he put in his assumptions. His assumptions may have gone by rather fast, especially since they are stated in the economist's technical language.

First, there was the assumption that the present allocation of resources among all users is optimum, as if we are doing everything now just as we would like to have it done.

And, secondly, he assumes that the income elasticity for demand for public and private outputs was equal, which, I suppose, means that, if you had \$10 billion less of total income, you would divide that cutback between public and private uses in the same proportion in which the total is now divided.

And, if you make those assumptions, I believe you come out with the distribution 1.2-8.8, with which he comes out. But, of course, those are very arguable assumptions.

If you start, on the contrary, with the view that the present pattern of expenditure is not optimum, but we are spending more for many Government functions than we ought to, and, if we were dividing our national income ideally among all possible uses, then your first step, whether you have this \$10 billion increase in expenditures or not, would be to cut out those public expenditures which you regard as being excessive even under present conditions.

Beyond that, one might then decide that a \$10 billion cutback in resources available for nondefense production should not be divided in the proportions 1 to 8.

I mean this is just a kind of starting assumption for a first day of a lecture.

When you get down to facts, you have to get beyond that. It seems to me that one of the conditions which might go along with the decision that you had to have \$10 billion more of defense expenditures would be a very much increased interest in investment of all kinds which, in our economy, is basically private investment, which might make you very reluctant to have to raise \$8.8 billion of taxes, although this would depend a great deal upon the character of the tax increase that one could contemplate as being politically possible.

So, I don't think that one ought to persist very long with this 1.2-8.8 division.

Representative MILLS. You are agreeing, under the hypothesis, with his division?

Mr. STEIN. I am disagreeing with it.

Representative MILLS. That is what I thought.

Mr. STEIN. I do not know whether he is agreeing with it. He puts it forward as a kind of initial assumption, as if we did not know anything specific—it is a kind of "equal distribution of ignorance" assumption.

Representative MILLS. I did not quite understand, Mr. Stein. I thought you were disagreeing, but I did not quite understand the way

you handled the situation in the face of this hypothetical case. Would you reduce Federal spending in other areas by the \$10 billion.

Mr. STEIN. Well, I would not expect to reduce it by 10 billion, but I would expect to reduce it by more than 1.2, since I would, even before this hypothetical assumption, have liked to reduce other expenditures by more than \$1.2 billion. I certainly would, under these conditions.

Representative MILLS. Well, I stated in the beginning that I considered this to be an exaggerated example. I do not want to mislead you as to my own thinking that we are dealing entirely with a hypothetical situation.

It is entirely possible—and maybe it is probable—that we will be faced in the coming year with some situation that will indicate to us that defense spending is rising to such a level that, if we are to have a balanced budget, it will be necessary for us either to reduce spending, look to increases in revenue under existing rates from additional economic activity, or raise taxes.

Now, if we can get these additional expenses taken care of out of additional revenues that come to us through economic growth, well, that is good. Or, if we can defray these additional costs through either that avenue plus reduction in Federal spending in other areas, that would be very popular, perhaps, with the American people.

But have we reached the point where, as a matter of fact, we can use the other alternative, if we get to it, with any degree of public acceptance, namely, to increase taxes to anything like seven-eighths of whatever the increase is or to eight-eighths of what the increase would be.

Mr. STEIN. I do not think it would be necessary to raise taxes by seven-eighths, or eight-eighths percent of any such figure as \$10 billion. However, if it were necessary under the conditions hypothesized, I think you will find the American public willing. I have not taken any poll lately, but I am inclined to believe that. And I think they certainly ought to.

I do not want to be in a position of saying we are at any limit of taxation. I do not believe that. I believe, however, we have room for cutting nondefense segments of the budget. I believe you could also reasonably count on some growth of revenue from the growth of economy without additional tax burdens.

Representative MILLS. Actually, I took you out of our field when I was talking in terms of anything other than what would be best for us to do from the viewpoint of economic growth and stability. I did not intend to take you out of that condition.

Professor POOLE, do you have a comment?

Mr. POOLE. Mr. Chairman, with respect to Mr. Stein's point, it seems to me there is another reason for questioning the distribution between public and private spending than the one he seems to have in mind. That is that, if it is necessary after Sputnik to increase defense spending, perhaps, on a long-term or eternal basis, there is a good deal to be said for getting the public, getting all of us, in a frame of mind to be willing to have another look at that portion of Federal spending which is of a less urgent nature.

I have in mind what could be defined as social consumption. One way, it seems to me, that we might avoid a substantial increase in taxes would be to tie up the \$10 billion or \$8 billion of additional

defense expenditures with a decrease of some billions of dollars of social consumption expenditures which we may have to learn to live without in the future.

We do not know yet what they are. We do not even know whether we have got to live without them. But we do know—or we think it may be so—that the Federal Government will have to make greater use of economic resources in order to put us in the proper economic and military posture for future years.

It seems to me, then, that instead of looking just at where we are to find the money to finance the additional defense expenditures—and I would like to reemphasize this possibility—we should whittle away a few billion from the not-so-necessary nondefense expenditures. And this ties in with another point, if I could make it before yielding. That is that if this is done, finding the additional taxes to finance another few billions of defense expenditures should be no problem in terms of the limits of taxable capacity. But there could be a problem in terms of the impact of additional taxes on economic stability.

My point would be this: that, as I emphasized in my brief summary, increases in income tax rates may very likely create some soft spots in the investment picture. I do not assert that they will, but if it should be true—and we are not certain it would be—that substantially increased income tax rates were to lead to considerable pressure for exemptions, for opportunities to convert ordinary income into capital gains, and so forth, this would then mean that a given tax bill would have to be raised to a greater extent from those individuals that were not in a position to accomplish this, in other words, those in the middle and higher brackets who are not able to profit from these kinds of exemptions.

I ask this question: Might this, then, not discourage investment in certain directions, and thus create certain distortions which we cannot now assess?

The result might then be certain declines in investment spending and perhaps sectional unemployment. Or, at any rate, the result might be misuse of resources, which is perhaps unavoidable. But we want to minimize it.

And, secondly, to the extent that we might have to have higher excise tax rates, it seems to me that we have to consider the fact that several million workers operate under the cost-of-living clause, the so-called wage escalator, and that it may become, in future months and years—always making the full employment assumption—increasingly difficult to divert resources from those whose incomes are in some way tied to the consumer price index.

Again we cannot predict the future. But, if there should be a rather massive movement into the use of the cost-of-living clause on the part of the working population, and if the idea should extend to variable annuities and index bonds, and so forth, it might be that although we would not have reached the limits of taxable capacity, we might discover that it would become increasingly difficult to raise tax rates—I am saying either income tax rates or excise tax rates—without paying considerable attention to the destabilizing effects of doing this.

Inflation, of course, would raise the tax bill. This might not in itself be very important, but it might be so from the point of view

of the reaction of the public to the question of economic stability in an age when you are perhaps trying to make a transition from some public consumption to public investment in order to meet the international problems that we are faced with.

Representative MILLS. Mr. Thomson.

Mr. THOMSON. Several points are raised by this discussion.

Point No. 1: We desperately need a long-range budget program, considering the levels we are now approaching in Federal expenditures and contemplating, as we certainly do contemplate, a large increase in the amount of our resources that will be expended for military purposes.

We need to take a long look forward and project our defense budget and our nondefense budget into the distant future. This is all the more necessary because of the unforeseen nature of the emergency which confronts us.

Now, I think the world's most expensive and uncomfortable dog kennel has catapulted us into a frame of mind which prevents taking a calm and confident look at the distant future. But consider the type of investment contemplated. It is mainly investment in scientific capacity or, ultimately, investment in education.

This is a long-range problem which demands a long-range framework.

Point No. 2: We most certainly ought—because we are proceeding toward very high levels of taxes and expenditures—to look about for layers of fat on the Federal structure that can be shaved off or squeezed out or massaged away. I am sure we shall find a very, very considerable amount of them in all sorts of embarrassing places.

And, point No. 3: We really ought not to confuse the long-range Government allocation problem with the short-range problem of the business cycle.

How much expenditure, how large a slice we ought to take out of the national pie, can be decided in relatively complete isolation from the question of how we ought to shore up our defenses against the cycle. We can decide the budgetary question on a long-range basis and let the size of the deficit be governed by short-range considerations.

Point No. 4: Taxes to finance all of this.

The income tax is the fiscal counterpart of a democratic society. On equity grounds, the income tax is infinitely superior to any other form of levy. The income tax is also a more efficient and effective tax to administer.

I would favor ripping out the excise taxes, not increasing them, but ripping out the excises and putting the entire burden on the income tax. If need be, lower the exemption levels. If need be, raise the rates on the lower brackets. But put it on the income tax—for efficiency, for equity, and also for a third reason: that the members of the body politic can, in one lump sum, see the bill that their Government presents to them.

This they cannot see if their pockets are filched by a variety of little excises.

Representative MILLS. Professor Heller.

Mr. HELLER. By the terms of your question you took us out of the ivory tower and put us into the operational atmosphere of Congress.

Therefore, I do not see how we can really avoid examining the assumptions that you gave us and see to what degree they represent reality.

I would like to address myself to that, if you will permit we to do so.

On this \$10 billion assumption, to begin with, I would not make quite so many reservations about the size of that figure. Admittedly, it's unrealistic for next year. But as one adds up the implications of the President's Oklahoma speech—and I do not pose here as a military expert—the cost comes high—strengthening our Strategic Air Command, improving our warning line to achieve maximum possible warning of a future attack, developing an antimissile missile program, adding long-range missiles to our security forces—the cost is in billions, not millions.

The President noted that the military services are underpaid. If I understand the implications of the Cordiner report, several hundred million dollars are involved—

Representative CURTIS. They say that will save money.

Mr. HELLER. That will save money?

Representative CURTIS. Yes. By saving on the turnover of employees.

Mr. HELLER. But this will not be an immediate saving. I think we all recognize that just as under many of the Hoover Committee recommendations there will be a long-run payoff in efficiency in return for a higher initial cost. The military incentive pay system apparently has at least a billion-dollar implication for general civil-service salaries. There are programs here in the President's speech for financial incentives for high-aptitude students, for stimulating good quality teaching, for more laboratory facilities, and so on. In other words, all told, it is a huge program.

Representative MILLS. Higher pay for scientists in governmental employment also.

Mr. HELLER. Yes. Higher pay for scientists in governmental employment. When we talk about \$10 billion, I do not think we need to make many apologies for the figure.

Representative MILLS. I said I hoped it was an exaggeration.

Mr. HELLER. Second, I do think we ought to look back at some parallels in 1949-50. Gearing up such a program is a slow proposition. One of the interesting and rather surprising things in response to the Korean war was that Federal tax revenues responded a lot faster than the expenditures.

In other words, the stimulus to the economy that would come from some of these programs, particularly if obligational authority were increased and contracts were let promptly, is likely to give a stimulus to tax revenues that might rather surprise us in terms of their size.

This implies that the problem is not by any means one simply of shifting resources. We have excess capacity in almost every major industry. We have a growing body of unemployment. Last month, we had a drop in personal income which seems to reflect this. So that in terms of making room for an eventual \$10 billion program, I think we can draw on quite a bit of slack in the current economic situation.

Also, a large part of the proposed program involves a good use of our resources in terms of long-run growth possibilities, as Mr. Thomson pointed out. I take it that your \$10 billion includes investment in scientific training and basic education, research, and so forth.

In the last analysis \$10 billion does not strike me as entirely out of reason in the present world situation. Yet in real terms, much of it can be "financed" by expanding output rather than cutting nondefense and civilian spending.

Representative MILLS. You are scaring me about my assumptions. So, what do we do, Professor Heller, if my assumptions do turn out to be accurate? What do we do about it? How do we finance it? Through reduction in Government spending in other areas? Do we find additional taxes?

Mr. HELLER. In applying economic standards, I think our first attempt should be to ferret out that billion dollars or so of Government nonessential expenditures. Incidentally, there would also very likely be some automatic shrinkage in the farm program cost as a result of a rise in farm prices in response to a higher level of economic activity. Apart from those things, and the automatic increase in tax revenue as the economy expands to its full potential, I see the necessity of some tax increase to finance a \$10 billion program without inflation. To the extent possible we should aim our tax increases at frills rather than necessities. I would like to aim—and this is not easy to do—at the chrome and the gadgets and the pushbutton cars, and many similar things that we ought to be prepared to give up if this kind of a program is really necessary for survival.

I would still express more faith in the excise taxes than Mr. Thomson for this kind of demand-diverting purpose, although fundamentally I agree we would also need an increase in the individual income tax.

Representative MILLS. Mr. Barkin.

Mr. BARKIN. We, fortunately, Mr. Heller and myself agree on many of his conclusions. So, I would like to throw light on other aspects of the subject.

First, I think the assumption that there has been an undue expansion of governmental expenditures is one which was called into question this morning. As a matter of fact, I think we have justification in concluding that in the nonmilitary expenditures, our expenditures have not been high enough. There might be individual programs which we might review—and I am not necessarily joining in with my comrades on the right here who are suggesting that agriculture is the necessary butt. Review is an ordinary routine of Government. But to assume even for the sake of argument, as you had suggested, that we move to cut governmental expenditures automatically I think is a bit hasty. Both the Federal and the State Governments are underspending in view of the great lag in nonmilitary expenditures during the war period and the deficit in such expenditures during the 1930's and the fact that during the investment boom of the last few years we have overbuilt private expenditures in many areas such as automobiles and others where the goals, the capacity goals, set by the private industry may have been too liberal.

I would count, as Mr. Heller did, on the higher income from higher economic activity. We have a big unutilized capacity in our country. It is of stupendous proportions, as you move from industry to industry.

One of the real problems we will have ahead is not accepting these rash sweeping conclusions about the necessity of curtailing governmental nonmilitary expenditures but to dovetail our private and public programs involving capital expenditures and development so that we do not create an exaggerated demand on our limited capacity of specific materials.

Representative MILLS. Overlapping demands.

Mr. BARKIN. Yes. For example, I think the particular inflationary pressure and rising prices from which we have suffered during the last 2 years are due to this combination of private and public expenditures and their demands on steel and other bottleneck materials which gave the operators of those industries an opportunity to exploit the market and thereby move ahead on prices in that area.

I would agree with Mr. Heller that our first targets have to be private frills. There is a lot of chrome, to use the language of the day, in our private economy and private expenditures. And as a number of us have said in our papers, the Government has a function in this time of rising governmental and public functions to be sure that we do not divert private expenditures to such types of frills.

So I would not immediately rush into the assumption that there should be an equal disposition to cut in private and in public. We must rely, in view of the public underspending over the last 2 or 3 decades, on the fact that we have to first examine the private frills, and also possibly take a reverse stand from what Mr. Poole has said, and cut out some of these exemptions and privileges which are represented by the loopholes and by depreciation allowances in our tax law of the country at the moment.

Representative MILLS. You are talking about chrome and frills in private spending. I had thought there was the possibility of some chrome and frills in Government spending.

Mr. BARKIN. Yes. Let me add this: if private industry were as vigilant and were under as much of a spotlight constantly in cutting its frills and chrome, we would get real efficiency in industry.

Mr. Curtis is apparently reacting to that statement.

Representative CURTIS. I certainly am.

Mr. BARKIN. If we would examine at the present time the kind of expenditures that seem to be available for cutting in private industry, he would really be shocked at the proportionately higher amount of frills and chrome-plated expenditures in private industry in the highly monopolistic corporations, as compared with the Government.

There bureaucracy far outdistances the ordinary processes of Government in the ways of wasteful spending of money.

Representative CURTIS. If I might interpose. As soon as you said the highly monopolistic, then I might go along. And then the issue becomes: Which one of those are highly monopolistic?

Representative MILLS. I want to recognize Mr. Curtis. And I apologize for taking up so much time with my questioning.

But before you start, will you let Professor Poole have just one moment here. I think he is entitled to a little rebuttal, since we appointed him to this congressional committee and put him in this ivory tower.

Mr. POOLE. Thank you, Mr. Chairman.

With respect to some of Mr. Barkin's comments which do have a rather opposite cast to some of mine, he spoke of the large amount

of excess capacity throughout the economy, which, of course, we know has been developing recently. And he spoke again of the frills and the chrome that we need to get out.

I am wondering if putting it just this way, however, does not divert our attention from what may be the longer-term problem. That is, when I suggested reducing nonessential Government and private expenditures, I had in mind something a lot more than cars that happen to be 3 feet too long, and that sort of thing.

I was asking for a reorientation of our point of view on an assumption, which may or may not be correct, that we have reached a stage in our national history when we need to take a long look at how well we are doing in standing up to the competition.

I really feel that—perhaps “begs the question” is too strong—but I really feel that it does not get at the core of the thing to speak of excess capacity here and there—perhaps even importantly here and there—throughout industry as being a sufficient answer to what I was trying to say, namely, that we need to look right through the whole economic system and find some sort of thoroughgoing method of providing for a redistribution of resources from unnecessary uses, such as peripheral kinds of social consumption, and unnecessary private consumption, toward both private and public investments which are designed to enhance the type of growth that we are going to need in order to put on a good show in the months and years to come.

Thank you, Mr. Chairman.

Representative CURTIS. Mr. Chairman, I will ask Mr. Musgrave a question so that he can continue on, because I know he wanted to comment. I noticed he was the one who suggested that some deficit financing might be resorted to, to get over this question.

I was wondering how and when we would eventually pay for such deficit financing?

Mr. MUSGRAVE. My answer would be that you pay for it in the next boom.

If the business situation is such that it does not require surplus financing, then you don't worry about it. You don't pay for it.

Representative CURTIS. In the meantime, haven't you got a situation where you probably will have some inflation? Won't that deficit financing be transposed if you do not have some method of funding it? Won't it actually come out in inflation, which is, in effect, another way of paying for it?

Mr. MUSGRAVE. If and when you have inflation, then you need surplus finance. Then you will tie up with your surplus finance the liquidity which you have created.

Representative CURTIS. But in the meantime, you have inflation which causes a great deal of economic distortion, it seems to me.

Mr. MUSGRAVE. If we have the kind of economic conditions next year such that having a deficit finance would create inflation, then by all means we should not have deficit finance.

I am totally in agreement with you. We should only have the deficit finance if we need it to maintain adequate employment. And I think we should let credit be eased before we resort to deficit finance. It should be a second line.

Representative CURTIS. Now, you had further comments, I think?

Mr. MUSGRAVE. Could I make one comment? Could I just make 1 or 2 points in connection with Mr. Thomson and Mr. Stein?

First, let me say that I am very enthusiastically behind Mr. Thomson's point regarding the necessity of budgeting over a long period. I think this is not our today's topic. But it is a big problem which I hope your committee will have time to consider. This is terribly important.

Secondly, with regard to Mr. Stein's comments, of course my 1.2: 8.8 ratio was advanced on the spur of the moment. But I think many a time you start out at the beginning of a lecture with a proposition which you prove at the end of the semester to have been intuitively correct.

I would like to add a point of principle to this discussion of adjusting the level of private expenditures versus the level of public expenditures. In the old literature on fiscal policy and compensatory finance, one of the arguments which had been given great weight was the argument of counter-cyclical variations in public expenditures.

I would like to say this is an extremely dubious principle simply because we cannot assume that we have a regular cycle; and, therefore, if we want to have a certain level of public services in the long run, we had better stick to this level as we go along rather than go ahead or postpone, because we do not know whether we will have the opportunity to make up.

In other words, from the point of view of efficient allocation, there should be a countercyclical variation in public expenditures only to the extent that this reflects a countercyclical variation in the allocation of private preferences between social wants and private wants, privately purchased goods and publicly purchased goods.

Otherwise, we run into serious problems of malallocation. The stabilization function is essentially one of adjustment in the tax level. To have made this point clear, has indeed been one of the great contributions of the CED. So, I would say, with regard to Mr. Stein's point, that if we have waste in public expenditures, if we not only have errors in allocating the present amount but if the total amount is too large, then certainly it ought to be cut back. But it ought to be cut back with or without increased defense expenditures.

In principle Mr. Stein would probably agree with what I have said. But I just want to go against the idea that if there are to be variations in total aggregate demand, public expenditures have to take the beating, or public expenditures get the boost. I think this leads to a wrong view of the role of public expenditures.

Representative CURTIS. I wonder if we could develop this thought, that both Mr. Thomson and Mr. Musgrave have advanced, of budgeting over a long period? Just what techniques might be employed?

First, I might ask if the rest of the panel agrees with that general observation that that might be a desirable thing?

Is there anyone who disagrees? I see some nodding their heads affirmatively.

Is there anyone who would disagree with the possibility of looking into that area?

Mr. BARKIN. I think Professor Musgrave has just indicated that this is a phantom intellectual concept.

Representative CURTIS. You mean budgeting over a long period?

Mr. BARKIN. Budgeting over a long period of time. I think we were all enamored of it immediately after the war, but, as a reality, we are actually establishing an increasingly higher dollar or monetary

level of expenditures in the public area. And I think Mr. Poole has emphasized that in his paper.

And, consequently, we must assume that this constant, or, as we call it, secular, rise will be with us. And the belief that we can then on top of that place a countercyclical force through long-term budgeting is a concept to play with intellectually. But we have seen over the last few years that it is not a practical technique with which to play.

Representative CURTIS. I see a number of hands. I would like to make one comment myself, though. Whether it is a grand concept to play with or not, the military establishments have certainly come in with some pretty longrange budgeting. That is where we get a lot of these what we call longtime items for which money is appropriated but which remains unspent for 5 or 6 years sometimes.

Mr. HELLER. In part, Mr. Barkin's comment may have been addressed to a misinterpretation of long-range budgeting. I think the concept of long-range budgeting is not for anticyclical purposes but for pointing up the full costs of the project so that you can make a sensible economic decision as to the balancing of costs and benefits. In that respect I am sure Mr. Barkin would agree with the rest of us that this is a desirable end.

Representative CURTIS. Now, Mr. Thomson and Mr. Stein.

Mr. THOMSON. Fortunately, extrapolation is neither the beginning nor the end of wisdom in long-range budgeting. Because the level of Government expenditures has risen from about 7 or 10 percent to about 20 or 25 percent over the last half century does not mean that in X more centuries it is going to rise to 100 percent of gross national product. To clear our sights, what are the fundamental questions that this committee and this Congress tries to answer as it wrestles year after year with the budget?

The fundamental difficulty is that the committee and the Congress are doubtless trying to maximize two irreconcilable objectives.

Objective No. 1 is to design a budget for maximum economic effectiveness. Objective No. 2 is to design a budget which will satisfy the political stresses and strains which confront the parties and the individual legislator. Economic efficiency and political survival may be incompatible. But, now, having said this, how can we make the decisionmaking process a bit more rational?

Can't we reach into the budget and ask questions like the following:

How much of this budget consists of public investment?

Obviously, highways is an investment item. Obviously, a certain amount of education is an investment item. Obviously, half a dozen other things will turn out to be investment items.

How much of it is consumption? How much represents resources which are used up this year, used up for good purposes, to be sure, but, being used up, leave no residue behind?

Thirdly, how much of this budget represents transfer items? How much of it represents reallocating of income from one group to another?

Having asked these questions, we may go forward and say, "Over the long pull, over the next 10 to 15 years, given some reasonable prospect about gross national product, how much do we want to put into Government investment?"

In addition, let's take a calm but critical look at the capabilities of the enemy, and ask ourselves precisely what degree of risk is attached to various kinds of defense budgets?

If we have a 10-percent defense budget, and if the Russian economy and the Russian military do such and such, then what risk is attached to this? If we have a 20-percent defense budget, 20 percent of gross national product for defense, then what coefficient accompanies this? Which alternative are we willing to accept over the long pull?

We must present these choices, so that public discussion can begin to operate on them.

This question of defense, the question of defense and foreign policy, is an area where public consensus is difficult, because the body politic does not seem to know the technical details nor appreciate the available alternatives.

Much progress could be achieved if we placed these ranges of alternatives before the people as a target for discussion for the next dozen years or so.

Representative CURTIS. Mr. Stein.

Mr. STEIN. Well, I wanted to respond to the question about long-range budgeting, about which I think we are probably all agreed, and I think probably with Mr. Heller's clarification Mr. Barkin is also agreed.

I think this is especially urgent in the case of the military. The necessity for squeezing what is essentially a long-range program into an annual budgetary process is the cause of a great deal of inefficiency and lack of balance in the military program.

It takes 2 or 3 years to prepare an annual budget in the case of the military. And they come up annually with the necessity of quickly adapting to some annual budget figure an underlying program which has been developed long in advance and which is very complicated.

The temptation is always to adapt by adjusting those things which adjust most easily without much regard to their priority in the scale of military values.

And I think there has been repeated experience which provides evidence of the wastefulness and danger of this process in the military particularly.

Representative CURTIS. I would like to ask a question along another line. First, I would like to make a comment.

It is a theme that runs through a lot of modern economic thinking that a perfectly proper function for the Federal Government today is to use taxes to distribute wealth. I think that was one of the points developed there. I would like to just say, for the sake of the record, that there are some people who still do not go along with that. I am one who does not. The comment that I would make, though, is this, in the form of a question:

It seems to me the fact that we have been using the taxing power for other than raising revenues has contributed to an economic situation today that, I think, does exist where business makes a great many of its decisions based upon the tax structure instead of upon an estimation of economics.

Now, to the extent, of course, that our tax structure might be wise in diverting certain expenditures certain ways, that is achieving this result.

But wouldn't you agree that the use of the tax structure for other than raising revenue has that potential danger?

Let me ask Professor Heller, because I used his name first.

Mr. HELLER. If I may address myself to that, I note that you hooked the distorting effects of taxes together with redistributive taxation.

Representative CURTIS. Because that is the way it came up, I think.

Mr. HELLER. Yes; several papers in the symposium brought out the redistributive function of Government. I believe all of us here, as economists, are saying that if the body politic decides that the existing distribution of income is unsatisfactory—not merely by income-size groups but by functional groups, such as farmers versus urban people—all we are saying is that Government is “the” instrument by which to accomplish the redistribution. I do not believe any of us have set up how much redistribution there should be. All we are saying is that Government is the organ to accomplish it.

Representative CURTIS. But I think someone advanced the thesis that among the methods the Government might use in order to do that, taxation was the most efficient and the best. I think that has come out.

Mr. HELLER. Taxation, inevitably combined with the Government's expenditure pattern and, particularly, the so-called transfer expenditures. A lot of the impacts of taxation in distorting business decisions really have very little to do with the redistributive function of taxation. Partly, of course, it is a function of the very high tax rates.

Representative CURTIS. I was just going to comment there that that, to me, is the danger. The taxing power is much more suitable for producing economic results if the rate is high. Because then, when you grant something like what Mr. Barkin has been saying, depreciation rates or depletion or whatever, you can immediately channel something into that area where you have given this benefit.

Mr. HELLER. What you are saying is that the incentive is much more powerful the higher your rates are?

Representative CURTIS. That is correct.

Mr. HELLER. And your rates are going to be higher the greater your redistributive purpose which is being served by taxation. That is perfectly true. Just one additional comment. Throughout these public-expenditure hearings, we ought to keep in mind that, for many purposes, tax remission is just as important a method of influencing the use of our resources as outright expenditures. And we have made more and more use of this method. It cuts down the size of the revenue side of the budget, just as the alternative would raise the size of the expenditure budget. And I wish someone would make a combined computation of what our gross public expenditures are in this sense by adding these negative taxes to the positive expenditures.

Representative CURTIS. That is exactly the reason I wanted to bring that out into the light, because, of course, a certificate of necessity is a very good example of exactly that thing, because it is clear cut. There you give a certificate of necessity so that it can have rapid amortization for building freight cars or whatever the Government decides it wants to encourage. And that is the very danger that I, myself, see through utilization of the taxing power in that area of economics.

It is certainly a convenient and efficient way of doing it, but it is also a manner, I might say, which your smaller economic units, small businesses, have a very difficult time availing themselves of. You accentuate a concentration of power in our larger economic business units.

And in my judgment, you always will, if you use the taxing power to effect these results. That is why I suggest it is an exceedingly dangerous philosophy of government. I know I am very much in the minority on this, but I do want to at least state for the record, that there are those who disagree very fundamentally with this approach. I would rather see government do it direct, even though it may not be quite as efficient, but then at least it can do it for all sections of the economy instead of just the one.

If you leave it to interpretation of the tax laws, there is only going to be one main group that is going to benefit.

Mr. HELLER. May I say, I want to joint you in this particular minority?

Mr. MUSGRAVE. I discussed this problem of distribution in my paper. So I may add a word to it.

My first point would be that the question of redistributive activity in the Government budget is one of degree. There would hardly be anyone, for instance, who would say that there might not be a need for some redistribution activity in emergency cases of relief. If you have a mother with five young children who is taken ill, presumably something has to be done. Everyone would agree. Beyond this, it gets to be a matter of degree how far one would want to carry it.

Now, my second point is that redistribution need not involve collecting taxes and making transfer payments. It may actually be that our progressive system of raising taxes to pay for goods and services expenditures involves a redistribution in the sense that some people are asked to pay more and other people are asked to pay less than they should on benefit grounds.

In other words, the component of redistribution is really not in the tax transfer scheme, but in the more progressive taxation for the financing of goods and services expenditures, than would be justified on benefit grounds. This is the component of redistribution to which, in my view, many people subscribe. This is a matter of value judgment, and not for the economist to judge.

To the extent that the people do want some degree of redistribution, the tax expenditure mechanism is better because the alternative mechanism would be monopolistic practices in the market. For instance, if the society decides that workers in some industry which are strongly organized should get an increase in wages, which goes beyond their productive gains, it would be better to make some transfer payments out of taxes rather than let them push up the wages and have the cost financed by inflation.

Finally, I do quite agree that if you have redistributive adjustments through the budget mechanism, this may involve a cost for the private enterprise segment of the economy. No one could argue that the private enterprise system would work just as well if you had a complete equalization of income.

There may be, perhaps, an optimal degree of equalization to create the proper climate. But if you go beyond that, it may involve a cost in efficiency. I think this is one of the social problems of the cap-

italist system, a problem of arranging the system in such a way that it can provide for whatever minimum degree of equalization people think necessary.

This is one of its important problems.

Representative CURRIS. I would like to comment. Number one: I can go along on the benefit theory, because I certainly do believe—and in fact I think along with Mr. Thomson—that the graduated income tax is essentially a fundamentally sound and correct tax. But I interpret it more on the basis of a benefit theory, which is the traditional one rather than this redistribution theory.

The second comment I would like to make is one I made this morning. The example you used of the mother with five children, goes back to one function that I do believe the Federal Government or any government has to be concerned with. That is indigency. But, I submit that indigency has been used as the vehicle to carry a lot of other things that are far from indigent. Once you overcome or put your floor, you might say, on living, I suspect—at least it is my own tentative view—that by having the Government interfere in the distribution of wealth, once you have solved, corrected, or allowed the Government to correct for indigency, the market place should take over. The Government must continue through regulations to preserve equity in the market place where we all recognize regulation is necessary. But by getting government into the business of redistributing, I think we run into some very serious economic problems which in my judgment are actually with us, if we analyze them.

Mr. BARKIN. I wonder if we might just enter the fact in the record that the direct redistributive function which is somewhat subsumed under the concept of transfer payments is much less than or is somewhere in the order of 15 or 20 percent of the Federal Government's total expenditure. You are functioning in areas which have no direct redistributive purpose other than, as Professor Musgrave has indicated, that you favor one or another group because you give them some kind of expenditure. And we sometimes exaggerate the amount spent of that function.

Representative CURRIS. Well, yet the agriculture program is almost essentially and openly a program of redistribution. At least that is an open program of redistribution. And certainly so is the public housing program and many of the very expensive programs that the Federal Government has gotten into.

Every one of them has been moved into by government on the basis of indigency. That is why I raise this question. It seems to me that this very basic proposition gets to the budget situation.

There is one other question I would like to raise, Mr. Chairman, if I may.

Again it is more in the form of a statement for comment.

Professor Heller has discussed on page 2, the question of which level of government should finance the expansion of our scientific education and research program, and so forth. In one of his sentences there: "Only the Federal Government has a broad enough field of vision to reach a rational and economic decision."

Then it goes on to develop further.

I only use this as an illustration. Here, this field of education, which I think we are all concerned about—we did something in 1951 in the Congress which in my judgment did more damage to our edu-

cational system than anything else. We did it without any exploration or study.

I am referring to the UMT program which was only partially implemented. But even though the title remained, the military continued on their program, which in effect interrupted—and has to this day—the education of every American boy. That was done at the Federal level.

The thing that disturbed me about it was the attitude of people in our educational institutions of higher learning. I remember going up to Dartmouth College at the time to talk with some friends I knew up there as to what position they were going to take on it, what they were going to do. I learned there—and I do not know whether this was an accurate statement—that a sort of a deal had been made that if they would grant them so many scientists—that is, so many boys that could study science—why, they would back the UMT program.

I could not tell them honestly what the program really was. But there we go back, if that hypothesis is correct, of the Federal Government going in and affecting the educational field in a tremendous fashion.

Now we talk about whether the Federal Government should go into it more directly. Along with that, I want to bring out again the comments I made this morning about our vocational educational system. I have been before the Appropriations Committee each year, strangely enough, urging more money in vocational education, but on an entirely different basis than anyone else. My thesis is this: That the Military Establishment, the Federal Government through the Military Establishment, is already in the field of vocational education to an extreme degree, highly competitive with the private vocational educational system.

In my judgment we would get a lot more results in education, vocational education through what you might call, the civilian system of vocational education, than through the military.

Until we start phasing back on the military, there is no sense in talking about phasing back on what I would call the local vocational educational programs. But, this is an example in my judgment of budgetary implications. Here we are talking about spending more money in the field of education. Yet in my judgment, if we would analyze what we are doing in the field of education, we would find that by really spending less money, but spending it efficiently, we would be getting more results.

That is the point I think Mr. Thomson has made throughout, here. Maybe it is Mr. Stein. The point that we might agree on 80 percent of the things that the Government is in.

We agree on the bulk of what the Government is in, but 80 percent of the argument essentially is whether they are in it well and how they are doing it.

It seems to me there is the great area that faces this committee. We will be going into these details as these later papers show. But is there any disagreement on that? Mr. Heller, is there any disagreement on that, if I have gotten my thought across to you, in what you say here?

I do not believe there is, but there might be.

Mr. HELLER. No. But just one point of clarification may be in order. Mr. Curtis: in terms of efficiency, that is, in terms of this total weighing of all the benefits, including the indirect benefits that the

private market is not willing to pay for, only the Federal Government has a broad enough jurisdiction and perspective to balance all of the benefits against all of the costs and make an economically efficient decision.

Representative CURTIS. Let me ask you one question.

Do you not think an intermediate step would be though—well, you say that the private sector is not doing it, which we could agree on in certain instances. Is there not an intermediate step to see whether or not you could not stimulate the private economy to do it and then if you answer that that is the situation, if it is only after you answer that “no,” that you go to Government?

Would you agree or not?

Mr. HELLER. I would put the question in a little different framework: what total resources do we want to devote to education in light of all the benefits? Both those that accrue to the person being educated and those that accrue to the rest of us because he is educated.

The next question is, how much of the job can be done by the State-local governments, how much by private schools, perhaps by stimulation through some kind of Federal financial aids—

Representative CURTIS. We do through donations to scholarships and so on.

Mr. HELLER. Well, that is right, though, incidentally, you and I would agree that it ought not be done through deductions under the income tax.

Representative CURTIS. That is the way we have been doing a lot of it.

Mr. HELLER. Yes. What I am saying here is not that the Federal Government should do the entire job, but that it is in the best position to judge how big the job is and then see how much of the job should be done by different segments of the economy.

Representative CURTIS. I think we are in disagreement there. That is why I used education. It seems to me the people in the educational profession, our college personnel, our deans and so forth, are much better able to judge the whole picture of education than people like myself in Congress, or people in the executive branch of the Government, or indeed, the people at large throughout America.

Now, if the educational profession were to come along after reviewing it and studying it and say, “we think that there is something needed here,” that would be one thing. But it seems to me they are the ones that have the broadest view. I think that can be carried over to the other areas of more traditional economics.

For example, in the telephone industry, in communications, I really believe that the people in the economics of communications are really better able to get a broad view of that entire field than the Federal Government is. In fact the only way the Federal Government can get it is to a degree, through their eyes.

Mr. HELLER. But in effect, someone has to set the framework, the objectives, within which the educational people can come to you and say, “Here is the part of the job that is being done. Here is the part that isn’t being done.”

Representative CURTIS. Yes. Let us get back to the military. In fact, that was my argument.

If the military would say what skills they need and define them, and over a period of what time and so forth, it is true then the educational

profession could say, we can meet these in such and such a fashion, but we would not be able to do this.

I can see your point, if that is what you mean, that the Federal Government is the one that has posed the problem. And then have public discussion of how you meet the problem. That, I would agree with. But I cannot agree that the Federal Government has got the broad vision because unless they have got the knowledge, they cannot have the vision.

Lord knows, we haven't had the knowledge in so many areas.

Mr. THOMSON. Aren't you referring to a special case of a very general problem which Government decisionmakers encounter?

Aren't you saying that the Federal Government in general and you gentlemen in particular have such an enormous horizon of decision to contemplate that in a short lifetime you can't possibly get the right answers to all questions. Therefore, the optimum policy is to decentralize decisions whenever humanly possible?

Representative CURTIS. Yes.

Mr. THOMSON. For instance, to decentralize situations whenever possible down to lower levels of government? Or to decentralize decisions whenever possible out to the private market?

The question, however, which concerns a great many people is how central stimulation and finance of certain activities can be combined with decentralized decision?

You combine them, do you not, by collecting revenue through an instrumentality such as the income tax, and paying out not special-purpose subsidies to the lower echelons of government, not subsidies for vocational education, or not even subsidies for education in particular, but general-purpose subsidies?

In this way you avoid a series of minute policy decisions on how these revenues will be spent.

Representative CURTIS. Of course one way would be to get the Federal Government out of some of the tax areas that lend themselves well to local and State government.

Well, I think the technique that we used in the unemployment tax is not too bad because there the Federal Government imposes a tax which is immediately canceled if the States provide—and there is considerable flexibility given to them—provide something in lieu thereof.

But I guess we actually do tax—well, no, we do not. There it is their tax that goes into effect.

Mr. MUSGRAVE. I would like to make a couple of points; first, with regard to your argument relating to the distinction between taking care of indigency on the one side, and redistribution on the other.

This is a sensible argument. I see what you are driving at. But I think that your dividing line is not as solid as you may think because the question of what constitutes indigency is a question of standard of living.

Representative CURTIS. Yes, I will go along with that. I think you do have a hard line to draw. And that is why I threw in the thought of a floor. I do not know. I do not know what floor would change the standard of living.

Mr. MUSGRAVE. One of my colleagues at the University of Michigan made a study of poverty. It was decided to define poverty in terms

of people whose standard of living was less than that of a relief family in New York City. He came to the conclusion that one-third of the United States population are poverty stricken. He went to some anthropologists to have this explained, and he pointed out to him that this would always be so because the level of relief standard in New York City would be just about one-third of the income scale. So, this is a highly relative matter.

A second point with regard to the decentralizing of decisionmaking; I think that Mr. Thomson's argument had a slight non sequitur in it.

I grant that this problem of decisionmaking is extremely difficult. I also grant that if you have the kind of decisions which lend themselves to decisionmaking by the market, that then by some wonderful good fortune of circumstances, these decisions are made for you better than Government could make them.

But where the decisions are inherently governmental decisions, it seems to me that the argument of decentralization does not follow at all. If one would believe in this, one would have every hamlet have its own government.

There are very important economies of scale in this kind of decisionmaking. If you gentlemen have to reach these decisions, you need expert advice. The problem is to get hold of this expert technical advice.

This is really one of the great things about the Joint Committee on the Economic Report; that here, you have a development where Congress itself has a staff of economic experts. You do not have to rely on the administration's staff, which, if you happen to belong to the other party, maybe won't cooperate with you, or maybe not, anyhow. It seems to me the most productive public expenditure that can be made is to hire more technical staff for congressional committees.

Representative CURTIS. Mr. Stein?

MR. STEIN. I would like to say a word or ask a question about the question of scientists, since this seems to be the next field of expansion of Federal expenditures. I, myself, am quite uncertain about what the proper answers are. But Mr. Heller says, that the Federal Government is in the best position to see the indirect benefits of having a lot of scientists in the country and therefore, best qualified to decide what the number of scientists ought to be.

Well, that is not absolutely clear to me. All that is clear to me is that the Federal Government is in the best position to see how many scientists ought to be engaged in promoting those functions which the Federal Government is concerned with, especially how many scientists ought to be working on the military program in one way or another.

Having made that kind of a decision, just as they decide how many pairs of shoes the military ought to buy—they didn't decide how many pairs of shoes there ought to be in the country—there is a market mechanism by which the Federal Government could implement such a decision. There is a question whether this works. And if not, why it does not work.

But one could visualize the Federal Government going out to hire the number of scientists and engineers that it wants and bidding the prices or the wages of these people up to the point that this becomes the most attractive of all occupations or, at least, more attractive than it now is.

Therefore, people want more such education and educational institutions adapt themselves to the kind of education that people want. Even our State and local educational institutions adapt themselves to the kind of education that parents want for their children which would be influenced by the alternative income prospects in these various occupations.

So that we are in a position where the Federal Government does, through the market, influence the flow of people into various occupations.

It is not at all clear to me, although I want to ask this in an unprejudiced way, because it is the subject we are trying to study ourselves, but it is not at all clear to me why intervention at another level beyond this level of buying or hiring these people is required to get the results that are sought for.

One aspect of this thing is that presumably if the Federal Government wants these scientists badly enough to hire them at high pay, they might be able to bid them away from some of the alternative uses that have been mentioned here, such as extending the length of automobiles, and so forth, and in that way achieve the result of eliminating what has been called private frills, but in a way which leads the market to define what are frills and doesn't call upon the Government to decide what are frills.

Representative CURTIS. I might comment on those frills. It seems to me our tax structure contributes to a lot of that with the 52-percent corporate tax. You can deduct the frills as cost of business, at any rate, if you can call them business expenses. They can be deducted from the Federal income tax.

Mr. HELLER. May I just comment on Mr. Stein's question?

I would say, first of all, that I am assuming from what the experts in defense and in Soviet achievements tell us that our job is more than just transferring scientists from one part of our economy to another. What is involved is increasing the total number of scientists and trained personnel. The determination of how much expansion we want in this area is related to problems of national defense and problems of foreign policy, and this decision cannot be made by any other level of government than the Federal Government.

Furthermore, these indirect benefits to third parties which do not go to the person who is being trained, I would still assert, can only be properly assessed by the Federal Government. They are indirect benefits related not to something that we ask the States to provide or the local units to provide. These units are not the ones charged with the defense of this country and foreign policy. It is the Federal Government.

Mr. BARKIN. I would like to just add another dimension to those which Mr. Heller enumerated.

The Federal Government, in this case representing the ultimate of our governmental system, may have another objective, not merely defense and foreign policy, but also a change in the very structure of our society; namely, establishing a sector which is devoted to advancing the rate of the accumulation of scientific knowledge.

Other cultures, and other societies, just to make one concrete example—Germany before World War I and partly during the immediate period after World War II, devoted some of its national resources to establishing institutions and saying, "Look we set up

this professor. Let him do anything he wants. Let him conduct his research. We want theoretical research conducted freely, quite apart from military and immediate international purposes."

And the only agency that can bid for that is the Federal Government.

Representative CURTIS. Maybe we are talking about techniques; because we did that in this country very successfully, at least for those times, and for many decades, through our patent laws. So we may be arguing techniques that could be used. I would prefer to use that.

Incidentally, I might pass on a thought that just has been presented to me as far as the chemical industry is concerned today, and their arguments for tariff.

Their arguments stem to a large degree from the fact that the patent laws are no longer adequate to protect the amount of money they invest in research and development for new products.

What they are seeking is another method of protecting the investment.

I simply throw that out as an example, whether it is true or not, whether it can be substantiated, of a method whereby the Government can operate other than directly, although I would say, with Mr. Heller, tariffs being taxes are a dangerous way of bringing about economic results.

Representative MILLS. We thank you gentlemen for your appearance today, and the contribution you have made to our study on Federal spending.

The committee will adjourn until tomorrow at 10 o'clock, this same room.

(Whereupon, at 4:25 p. m., the subcommittee recessed, to reconvene at 10 a. m., Tuesday, November 19, 1957.)

FEDERAL EXPENDITURE POLICY FOR ECONOMIC GROWTH AND STABILITY

TUESDAY, NOVEMBER 19, 1957

CONGRESS OF THE UNITED STATES,
SUBCOMMITTEE ON FISCAL POLICY OF THE
JOINT ECONOMIC COMMITTEE,
Washington, D. C.

The subcommittee met at 10 a. m., pursuant to recess, in the Old Supreme Court Chamber of the Capitol Building, Representative Wilbur D. Mills (chairman of the subcommittee) presiding.

Present: Representative Wilbur D. Mills; Representative Thomas B. Curtis.

Also present: Norman B. Ture, staff economist; John W. Lehman, acting executive director.

Representative MILLS. The subcommittee will please come to order.

As I indicated yesterday, our approach in this study is directed primarily at examining the problems and issues in Federal spending policies from the point of view of the Employment Act objectives of a high rate of growth in productive capacity with minimum fluctuations in the price level. Through this study we are seeking economic facts and analyses on the basis of which broad guidelines can be developed to assist in the formulation of future Federal expenditure policy.

This morning we turn our attention to the problems and issues involved in determining the appropriate governmental level at which public functions should be performed.

Each panelist will be given 5 minutes in which to summarize his paper. We will proceed in the order in which the papers appear in the compendium, and we will hear from each panelist without interruption. Upon completion of the opening statements, the subcommittee will question the panelists for the balance of the session. I hope that this part of the session can be informal, and that all members of the panel, as well as members of the subcommittee, may participate in raising questions.

Our first panelist this morning is Dr. Benson, president of Claremont Men's College.

Dr. Benson, you are recognized for 5 minutes.

STATEMENT OF GEORGE C. S. BENSON, PRESIDENT, CLAREMONT MEN'S COLLEGE

Mr. BENSON. Mr. Chairman and gentlemen, as the only political scientist on this particular group, I am going to emphasize a little the administrative and budgetary aspects of the problem of allocations.

I think we all know that the device of grants-in-aid has now made it possible for the Federal Government to enter into practically any important expenditures sphere of State and local government, and this does raise a problem of what are the criteria for allocating these functions correctly. You could consider the financial ability of the level of government, the desirability of direct popular control, the effect of this function upon our liberties, the administrative ability of each level, and coordination with other functions.

I would like to point out that one criteria that is very frequently used seems to me no longer useful. That is the one of the so-called national interest. It isn't useful because every function of government, in a way, has a national interest. And, if we should say we will move the Federal Government into everything where there is a national interest, we would have a completely unified government.

However, the degree of national interest may be important. Now, trying to use these criteria in some of the important fields, it seems to me one of the most important ones is the degree to which the function may be subject to direct popular control. Defense, for example, is not subject to direct popular control. But, where a function is, we want to keep it decentralized, I would assume, because this means de-concentration of governmental power, greater adaptation of the Government to the needs of the area, opportunity for more citizens to participate in the Government, and development of political leadership in the lower levels of government.

Now, applying this criterion to some of the common fields, we get some interesting results. Law enforcement has remained decentralized in the United States. This is rather curious. In most of the countries in the world it has become centralized, but here it has remained decentralized. I would suspect that some greater degree of State activity is desirable, but there is no great move that I know of to bring the Federal Government into this picture.

Public education is, of course, a field of very great controversy. If I am right in thinking that this criterion of direct popular control is important, it would seem that public education is a field which is particularly subject to direct popular control and very important for liberty, and that the Federal Government should not go into it on a centralized basis. And, perhaps, it should withdraw from some of the aspects of public education in which it is now engaged.

Public welfare that is, public assistance seems to me to be another field which can be subject to direct popular control. Yet, at the same time, I think everybody would agree that another aspect of welfare, old-age and survivors insurance, is, very properly, Federal, simply because the Federal Government can administer it best. The States and localities just would not have the administrative ability to handle this.

It seems to me that highways are also suitable for direct popular control, and that Federal intervention should be confined to fields of very direct and specific Federal interest, or to cases of States which clearly are unable to do their own highway job.

In the field of aids to agriculture, we have a very confusing variety of patterns. You have direct Federal agencies like the Soil Conservation Service. Then you have a grant-in-aid pattern like the Agricultural Extension. I don't know, but I suspect the grant-in-aid pattern is most appropriate there.

Conservation of natural resources is a field where we have the Federal Government coming in with direct action, and there is a real degree of State and local interest which is too frequently lost.

Let me say just one final word about grants, which are the most frequent Federal method of intervention. Grants do have some advantages, as I think several of my colleagues on this panel have pointed out. They are a compromise way of involving both Federal and State interests. They do, also, have some very real disadvantages budgetarily and in the matter of administration.

The responsibility of a governor for running a State is much less clear cut when a substantial number of his bureau chiefs feel that their major responsibility is to the bureau in Washington from which they receive grants. In a relatively poor State, like Mississippi, we find that 40 percent of their State and local funds come from Federal grants or the funds needed to match Federal grants. We can see there is going to be a real problem in determining whether funds are really spent the way Mississippi needs them. And there is no one agency in Washington which takes a look at all grants. These grants for Mississippi are passed on by, I suppose, 20 or 30 different bureaus, and almost an equal number of congressional committees. The budgetary process has lost its focus, and administrative responsibility has been lost.

Now, in saying this, I would not abolish all grants, by any means. Some of them are very useful and serve useful purposes. But I think our use of the grant as a fiscal compromise device has resulted in a whole series of budgetary and administrative problems which do weaken the fiscal and administrative integrity of our State and local governments.

I think, Mr. Chairman, that is all I need to say by way of introduction.

Representative MILLS. Thank you.

Our next panelist is Prof. James M. Buchanan, chairman of the department of economics, University of Virginia.

Professor Buchanan, you are recognized for 5 minutes.

Mr. BUCHANAN. Thank you Mr. Chairman.

STATEMENT OF PROF. JAMES BUCHANAN, CHAIRMAN, DEPARTMENT OF ECONOMICS, UNIVERSITY OF VIRGINIA

Mr. BUCHANAN. Gentlemen, President Eisenhower has recently called attention to the problem of continuing concentration of political power in the Central or Federal Government at the expense of States and local units. At the same time, however, he has defended Federal intervention in specific areas on the ground that the States are failing to meet and to satisfy undeniable national needs.

This view, which is surely widely held, appears to confuse the existence of a need with its satisfaction. The need for additional school-rooms, more highways, better hospitals, urban redevelopment, and so forth, may be generally admitted. But need can never be absolute. Need must always be relative, and the existence of need does not suggest that it should necessarily be satisfied.

This decision must turn on some comparison of the relative importance of satisfying the need and the cost which must be involved.

The cost side tends to be neglected too often in public discussion, and we tend to accept presumably objective standards of need which do not exist. We satisfy one need, be it public or private, only through forgoing the satisfaction of another. This is the central principle of economics, and it must be continually kept in mind when discussing public issues. The fact that States have not responded to needs for certain public services may indicate only that the costs loom as more important.

Clearly, the Federal Government cannot respond to the needs of the people more adequately than the State governments. The fiscal illusion of getting something for nothing tends to be accentuated in Federal budget making. A certain magic surrounds Federal aid, because the necessary tax increments are effectively divorced from the benefits of the expenditure.

There are only two legitimate grounds for Federal assumption of financial responsibility for State and local functions. The first is that of achieving some fiscal equalization. If States differ widely in average incomes and wealth, some differential fiscal pressure must fall on residents of low-income States, and the Federal Government may legitimately take action to offset this. But interstate income and wealth differentials are narrowing over time, and fiscal equalization as a purpose should assume less importance. Also, fiscal equalization can justify general aid to the poorer States, not aid for particular functions. Actually, Federal grants-in-aid have not been motivated primarily by the equalization argument, and there seems little probability that they will be so motivated in the future.

The second reason for legitimate Federal intervention lies in the existence of important and significant spillover or neighborhood effects. If the actions of a single State in performing or in failing to perform a public service affect significantly citizens in other States, there is some basis provided for Federal Government intervention designed to promote uniformity in standards. It is at once obvious that almost all individual State action affects in some way citizens of other States. The real problem lies in the attempt to assess the importance of the spillover effects, and comparing these against the cost of Federal intervention. Final decisions can only be made on a case-by-case basis.

There seems to have been no legitimate reason for the recently expanded Federal intervention in the financing of highways. The benefits from an effective interstate network of highways do not seem sufficient to offset the added costs of further centralization. Similarly, Federal aid to education does not seem to be justified, although there is clearly a national interest in securing adequate public expenditure in the several States. In public discussion, the tendency has been to pay too much attention to the benefits from Federal Government action and not enough attention to the costs inherent in Federal Government intervention.

The maintenance of effectively decentralized political power is essential to the preservation of a genuine Federal system of government. And the maintenance of a Federal system is necessary for the preservation of a free society in the United States. The proper environment for economic growth and development is characterized by wide dispersion of power in all forms. And undue power concentra-

tion can only be detrimental to economic growth whether this concentration be in the form of big business, big labor, or big government.

Both my paper and the above portion of this summary statement were completed before the occurrence of recent events which has brought the Federal-State conflict into its sharpest focus. I think that the action which has been taken brings out quite clearly the confusion which surrounds administration thinking—and public thinking, generally—on the whole issue of decentralized power, a confusion which I attempted to emphasize in my paper.

The views of the President—or rather those who make Presidential decisions—seem to be: “We should like to see the States retain effective powers, provided such powers are utilized in the way that we desire.” But it is impossible to have it both ways. Either decentralized power is desired—and by “decentralized power” we must mean the power to make decisions—or it is not. Little Rock amply demonstrates that considerations of presumed “national” interest will outweigh considerations of decentralization in any decisive action of the current national administration.

Representative MILLS. Thank you. Our next panelist is Mr. Frank L. Fernbach, economist, department of research, American Federation of Labor and Congress of Industrial Organizations.

Mr. Fernbach, you are recognized for 5 minutes.

STATEMENT OF FRANK L. FERNBACH, ECONOMIST, DEPARTMENT OF RESEARCH, AMERICAN FEDERATION OF LABOR AND CONGRESS OF INDUSTRIAL ORGANIZATIONS

Mr. FERNBACH. I think we all accept the principle that direct popular control over both the financing and performing of governmental functions is highly desired and should be preserved insofar as possible.

I think we must also recognize that some very basic changes in the nature of American life over the last 100 years has necessarily resulted in the emergence of intergovernmental financial payments to assist in the performance of State and local functions, and necessarily the assumption of some functions in toto by higher branches of Government in behalf of the lower ones.

I think we tend to lose perspective with respect to the problem, because our headlines and our more emotional participants in controversy often seem to get far removed from the facts.

It seems to me significant that slightly less than 5 percent of total Federal expenditures went for grants-in-aid in fiscal 1956, the last year for which Census Bureau statistics are available on a comparable intergovernmental basis. It is also of significance that the less than half of all governmental payments that go for civilian service purposes are paid for in the greatest part through the direct tax levies and the borrowing of State and local governments themselves.

In fiscal 1956, 29 percent of civilian service outlays by all governments were Federal, and 71 percent were raised by the States and localities. I think we must not lose sight of the tremendous effort—not sufficient by any means, but nonetheless very substantial—of State and local governments to meet the crushing burden of rising civilian service demands in the postwar period.

State and local tax collections have increased 98 percent between 1948 and 1956. State and local indebtedness has increased a fantastic

162 percent. I think also that it is of tremendous importance to realize that whereas Federal grants-in-aid provide less than 9 percent of the total outlays of State and local governments in 1956, the localities financed almost 27 percent of their budgets from revenue received from State and Federal sources. The reality is that Federal grants-in-aid are primarily geared to meet the needs of local governments rather than those of the States. Whereas the Federal Government sent roughly \$3 billion to the States in grants in 1956, the States themselves sent to their local governments an amount equal to twice this sum in the form of shared taxes and grants. In addition, of course, the local governments received direct Federal grants of about a third of a billion.

Thus, our local governments ultimately become the major beneficiaries of all intergovernmental transfer payments. This is most significant, because I believe the facts will bear out that without Federal-State grants and shared taxes local governments in the United States could hardly perform their functions.

Of course, there are many hazards and pitfalls in the administration of grant-in-aid and shared tax programs. They must be subject to constant review in order to make sure that the purposes intended are fulfilled.

Local governments, however, could hardly function without grants and shared taxes, and it is interesting to note that these programs have emerged in varying degree within all of the 48 States.

Tremendous changes in the problems of State and local governments and particularly the localities has necessitated intergovernmental financial aid. This is particularly true with respect to the explosive needs of our growing metropolitan areas throughout the United States. Recently I was shocked to see figures showing that in 1955 about 60 percent of all Americans lived in 172 metropolitan areas which occupied about 7 percent of the land surface of the United States. Furthermore, between 1950 and 1955, 97 percent of our population increase of over 12 million occurred in these metropolitan areas. The concentration of millions of people in these areas has created fantastic new local governmental problems.

I think we are all aware of the tremendous difficulty of raising more money for local services locally. The limitations of the property tax as the main source of revenue for local governments has gradually forced the localities to depend more and more upon the greater tax-collecting abilities of the Federal and State Governments to help finance local public service needs.

I do not believe that this trend will change.

While we seek to maintain the performance of functions at the local level, we certainly cannot avoid an increasing participation in their financing by the higher levels of government.

Representative MILLS. Thank you, Mr. Fernbach.

Prof. James A. Maxwell, chairman of the department of economics, Clark University, is our next panelist.

**STATEMENT OF JAMES A. MAXWELL, CHAIRMAN, DEPARTMENT
OF ECONOMICS, CLARK UNIVERSITY**

MR. MAXWELL. Thank you, Mr. Chairman, and members of the panel. Underlying all I say is the belief that the case for maintaining and strengthening our Federal system of government is still very strong.

As a background, I call attention to important changes in public expenditures which have occurred in the last few decades. It is obvious that total public expenditure as a percent of net national product is now 3 times greater than it was in 1920 and the major reason has been the growth of spending for war-related purposes. This means, of course, that the relative share of the Federal Government has grown.

The share that has declined precipitately is that of local government. It declined from 57 percent of the total in 1929 to 21 percent in 1955. The State share over the decades has remained quite stable at about 17 to 18 percent.

Now, if we examine governmental expenditure for civilian purposes alone, it turns out that the State-local share in 1955 as compared with 1940, is larger, and the Federal share is appreciably smaller. This postwar expansion of State and local expenditure has been assisted somewhat by Federal grants, but the growth of Federal grants has not kept pace with the growth of State and local expenditure.

Now, grants, as other panelists have said, are a chief device by which governments cooperate in handling a function. And those who believe in the precise separation of governmental functions, with assignment of complete responsibility to a level, argue that cooperative action is relatively ineffective, leading to friction and floundering in administration.

Now, if governmental functions could be neatly divided, and as neatly maintained in a changing nation, this position would be impregnable. But in a country like the United States, what seems appropriate as a Federal function to one area often seems inappropriate to another. And no manifest line can be drawn, function by function, between what should be purely Federal and what purely State-local.

A diversity of opinion prevails, as was recently indicated by the report of the Kestnbaum Commission which, while displaying notable unanimity over principles, recorded also a very large number of dissents to most of its specific recommendations.

I think the same difficulty will occur on this panel. In the circumstance of the United States, it seems to me that grants serve to link the interests of the State and of the Federal Government. A governmental function which is primarily a function of State and local governments may also be a matter of major national concern: to shift the function to the Federal level would certainly be difficult and might be undesirable. To leave it wholly a State-local responsibility would

be to neglect a major national need. These unsatisfactory alternatives can be avoided if the Federal Government offers grants to stimulate State-local performance and to carry part of the cost of the function and to establish standards of performance at a level appropriate to the national interest.

Such a step may increase the Federal power. It may bring some centralization, depending on the scope and the stringency of the Federal conditions. But this danger, it seems to me, has been, and is, exaggerated.

Federal grants do redistribute income among the States. Rich States receive relatively small grants, and poor States relatively large grants. A rank correlation of per capita grants and income by States for 1953 gives the negative value of -0.59 . And this is only part of the process of redistribution. In addition, the Federal revenue from which grants are provided drains relatively more from the richer States. A rank correlation of the incidence of Federal taxes per capita and of State per capita income payments gives the high value of $+0.93$. This redistributive process carried too far would have unfortunate effects on resource allocation. But practically the danger seems slight for the political reason that equalizing grant formulas brings strong objection in Congress from the richer States.

Federal grants are sometimes criticized as merely taking from the States resources under their jurisdiction and available to them for taxation and then handing the resources back as grants. This is an inaccurate criticism which overlooks an important point. Even if the process were Federal disbursement State by State of the amounts collected, which it is not, the fact is that the Federal Government is a more efficient collector of most taxes than are the States. Federal collection of a given sum puts less real cost upon the Nation than does State collection.

I conclude, myself, that Federal grants are a very useful device.

The actual scheme of grants in operation has, however, many faults. Development has been piecemeal and haphazard over almost half a century with little congressional effort to appraise and revise. Once in operation, grant programs live on even though the original national purposes behind them have been achieved. In such a case, grants serve only the physical purpose of lightening the load on State-local budgets. Even when grants continue to achieve national objectives, they may need revision concerning method of apportionment, conditions and administrative rules. The hold of status quo is very strong, so strong that it impaired the one major analysis of grants ever made by the Federal Government, the report of the Kestnbaum Commission.

In order to illustrate this generalization, I have examined briefly in my paper what the report said about unemployment insurance in grants for highway construction.

The Kestnbaum report had the further defect that the subject of grants was not linked with the subject of intergovernmental tax relations. Yet discontinuance of a grant would throw a burden on State and local governments which they could not easily meet. The practical approach would be to couple reduction of grants with reduction of certain Federal taxes. This linkage will not be easy for two main reasons: (1), the taxes which are reduced would have to be usable

by the States, and (2), the poorer States are likely to gain less in taxing power and lose more in grant reduction than the richer States.

Exploration of what can be done is being made at present by a joint Federal-State action committee. Federal relinquishment of taxes on admissions, local telephone service, club dues, and some others, bringing in a revenue of about three-quarters of a billion dollars, is being considered as a quid pro quo for reduction of grants for vocational education, old-age assistance, natural disaster relief, the school lunch program, and so forth.

A thorough overhaul of grants should not neglect their adaptability for countercycle purposes. Some of the possibilities were summarized in the paper presented to your subcommittee by me in November 1955.

Representative MILLS. Thank you, Professor Maxwell, for your statement.

Prof. Harold M. Groves, department of economics, University of Wisconsin and Professor Hochwald, department of economics, Washington University and Professor Stigler, department of economics, Columbia University, have been unavoidably delayed and prevented from attending the hearing this morning as they had hoped, and as we had hoped that they would.

The statements which Professors Hochwald and Groves submitted will be included in the record of hearings at this point.

(The information follows:)

EXPENDITURE POLICY FOR ECONOMIC GROWTH AND STABILITY IN A FEDERAL SETTING

Werner Hochwald, chairman, department of economics, Washington University

Yesterday's contributions to the subcommittee's study of the relationship of Federal spending to the Nation's economic growth and stability have stressed the importance of a basic framework to define the objectives and functions of Government that shape its budgetary decisions. Such functions are: (1) To provide for the satisfaction of those wants which private business cannot satisfy effectively; (2) to make those corrections in the existing income distribution which society desires; (3) to join with monetary policy and other measures to maintain full employment and avoid inflation.

The allocation of functions among levels of government in a Federal setting can be discussed within this conceptual framework. Local wants are provided by local government while national needs, such as national defense, depend on Federal action. Similarly, changes in the income distribution, among persons and regions, as well as measures of fiscal policy, to combat depression or inflation, are handled most effectively on the Federal level. In the twin national emergencies of the last generation, the great depression and the World War, Federal activities greatly expanded, in the thirties with a depression-born concern about income inequalities and unemployment, in the forties with a growing determination to meet the overriding needs of national defense.

The resultant size of Federal expenditures has led to misgivings, as a postwar decade of worldwide inflation called again attention to the unpleasant fact that increased Government expenditures offer no easy or certain path to economic growth and stability. In these circumstances, the very limitations of lower level governments to effect a major redistribution of income, or to influence aggregate national demand, offer new promise to sharpen the critical appraisal of services demanded by local constituents, as the Federal Government restricts itself to fields with a strong and clearly identified national interest.

Yet no clear line of demarcation between local and Federal interests suggests itself in the closely integrated national economy. Many attempts have been made therefore to share functions among different levels of government in an effort to combine the advantages of each. Thus, grants-in-aid depend on the greater fiscal capacity of higher-level governments to finance services rendered

by lower authorities whose limited jurisdiction is thought to assure more direct popular control. Grants-in-aid typically reflect the situation where a lower level government, thought most efficient to administer local needs, seems least able to raise the funds needed for this service. The discrepancy between fiscal capacity and needs may be due to differences in the economic base of local government; in this case grants-in-aid become tools of regional income redistribution. The discrepancy may also be due to differences in the productivity of tax sources allocated to units of government or differences in the efficiency of revenue administration; in this case careful consideration should be given to the possibility of replacing grants-in-aid by a deliberate reassignment of specific tax sources to each level of government so that the ties between taxing and spending be strengthened, ties which appear essential to the preservation of effective local self-government. Such redefinition of tax jurisdiction would appear most urgent for the rapidly growing metropolitan areas where the increasing gap between local needs and fiscal capacity has become a matter of grave concern.

These complex intergovernmental relations point up the need for a consistent Federal policy to achieve economic growth and stability. Direct Federal expenditures are but one among several forces impinging on the national economy. They have far-reaching indirect effects through their impact on the income and expenditure patterns of private sectors as well as lower levels of government which in turn are influenced by the specific provisions of Federal grants-in-aid and the tax sources left under State or local jurisdiction.

TESTIMONY OF HAROLD M. GROVES, DEPARTMENT OF ECONOMICS, UNIVERSITY
OF WISCONSIN

It is an accepted rule that governments should not perform functions that can as well be performed privately and that the Federal Government should not perform functions that can as well be performed by State and local governments.

The presumption in favor of State and local governments is based on the faith that decentralization is an important constituent of democracy. Undoubtedly there are values in local government that are lost when responsibilities are assumed by central governments. Among them is the much greater opportunity for participation at the local level and the better chance for the "little fellow" to make himself heard. Added to this is the fact that the Federal Government is a monopoly of enormous size; it shares with many other institutions both the limitations associated with size and the evils associated with singleness.

On the other side it can be said (with the Committee on Intergovernmental Relations) that the States and municipalities would be in a stronger position as candidates for more responsibility if they had or would put their own house in order: antiquated apportionment, obsolescent constitutions, patronage civil service, and neglect of new and pressing problems of metropolitan regions. What becomes of the fine image of local democracy when the majority of legislatures can be elected by a quarter of the eligible voters and when A's vote counts for 10 times as much as B's

The States and municipalities have on the whole a regressive tax system in which regressive taxes are the growing element. Thus a vote for decentralization must also be regarded usually as a vote for regressive taxation.

Those who favor decentralization should logically be in the forefront of crusaders for better and more aggressive State and local government. Actually this is often not the case and it leads to the conclusion that these people are probably more interested in less government, less total taxes, and less taxes for themselves than in decentralization as such.

The States and municipalities are in a relatively weak position financially not so much because the Federal Government has usurped their sources as because they are subject to a tough, persistent, and growing factor of interterritorial competition that the Federal Government largely escapes. The proposition that Federal aid involves only the collection of revenue that might have been raised locally, the sending of this revenue to a distant capital from which it is returned with some part missing, is at most a half truth.

For the above and other reasons decentralization of expenditures can be expected to mean not only a shift in responsibilities but also a reduction in the total level of expenditures. This might be desirable as to particular items of expenditure. But in our modern era there is no presumption that welfare would be promoted by a shift from the public to the private economic sphere. There

are conspicuous wastes in the public economy but they are at least matched by the wastes and superfluities of private consumption.

The trend toward interdependence creates an overall interest in many local expenditures and this creates a partnership of interest which accounts in large part for the development of Federal aids. This is particularly true in the fields of education and highways. It is characteristic of the satisfaction of human wants through government that the benefits derived from government are largely indirect and frequently extraterritorial.

As to inflation and economic control, the intergovernmental financial relations are too institutionalized to make them readily amendable to the demand of compensatory fiscal policy. Moreover in our present situation neither tighter money nor reduced total expenditures of government are sovereign remedies for inflation. It is always interesting to observe that those who have a bias against government are nevertheless highly alarmed when the public starts saving its money rather than buying automobiles. We should look for something new in inflation control particularly devices that would discourage excessive wage and price increases resulting from monopolistic institutions in the economy.

As to factual evidence concerning centralization, the evidence indicates that the two principal areas of Federal expansion have been in the Military Establishment and Federal aids. The former can hardly be classed as aggrandizement and the latter can be defended as a recognition of the partnership of interest in our highly interdependent way of life. Minus items associated with the military interest, the Federal sphere is little if any greater relatively than it was 20 years ago. The Federal system in this country has preserved a degree of local autonomy unsurpassed at least by that of any of the world's great powers.

Whether or not our Federal system has reached a point of excessive centralization, there can be no doubt that it could profit by a much larger ingredient of intergovernmental cooperation. Here the objectives that might be served include intergovernmental collaboration in the administration of overlapping taxes, the relief of interstate conflict of laws, and a definitive boundary on limitations in taxing interstate commerce.

In conclusion the speaker accepts the view that our Federal system as a whole is in a healthy condition. The States and municipalities are still finding plenty of scope for such vision, energy, and ingenuity as they are able to summon. Each problem has to be settled by a weighing of values, and loyalty to any slogan is not likely to facilitate a sensible and pragmatic solution.

Representative MILLS. We appreciate you members of the panel being here this morning under conditions that are not good. We know some of you have come quite a distance to be with us. We appreciate the information you have given us and your remarks will be very helpful to all of us, as we progress with this study.

Yesterday, I led off with the questions. I think it would be appropriate this morning for Mr. Curtis to begin the interrogation.

Mr. Curtis?

Representative CURTIS. Thank you, Mr. Chairman.

I want to make one comment. I get the general impression from reading these papers—and it seems to fit with the papers we have previously had—that there is considerable agreement on the importance of maintaining local government and utilizing it to its capacity, but that there seems to be a situation where, because of the social needs and the fact that the local governments are not meeting these needs, the pressures for the Federal Government to move into these areas are prevailing.

I believe, as Mr. Buchanan brings out—he states on page 174—just simply stating it, there is no ambiguity here. The needs exist. Either the States respond to them or the Federal Government must.

The question I pose is: Isn't there an intermediate step in there? If it is desirable for local governments to handle these things if we had our preferences, isn't the intermediate step a question of what might be done, if anything, to encourage the local governments to

undertake to meet these needs and following that further, isn't that actually what the grants, many of the grants-in-aid originally are attempting to do—stimulate the local and State governments to move into these areas?

If that is the philosophy, then, as the State and local governments assume their responsibility, doesn't that require a phasing out of the Federal Government rather than a development of the Federal Government going in further, as I think Mr. Fernbach states in his paper? He states that he believes that the Federal Government in these grants will increase, which well might be. But I would like to pose that question for further comment if I might, from the panel.

Mr. Benson?

Mr. BENSON. I think it is a very interesting point, Mr. Congressman. And the very typical example of this is vocational education where the grant is now a very old grant. It goes back, I think to 1916 or thereabouts. The States and localities are now spending much larger sums of money than the Federal Government on vocational education. Nobody has a doubt that if the Federal Government pulled out of vocational education the States and localities would continue to have programs, yet maybe the Federal grant did originally serve a real purpose of stimulating an interest in this.

The trouble is once a grant is started, it never stops. The stimulating effect has to be viewed in this light.

As you know, the governor's conference committee meeting with the administration committee has recommended this as one grant that should be eliminated. I believe the Department has endorsed this proposal. But whether or not the grant will be repealed is, of course, something that will be determined in the next session of Congress.

There are a number of cases where the Federal Government may, because of its larger resources, be aware of a particular need, get something started in that field, and then should get out if it is not going to create this very unfortunate effect on budgetary and administrative responsibility in the States and localities of just too many Federal grants in too many places.

There is almost a nuisance value to these grants when you get so many of them, administratively speaking.

Representative CURRIS. As I analyzed the debate that occurred in the House the last time and in the previous Congress on Federal aid to education, the real issue—I regret to say it wasn't reported very well in the press of the country—but, the real issue was whether or not the Federal Government was to go into this field of school construction on an emergency basis or whether this was indeed to be an entry of the Federal Government into the field of education.

Although it was disguised pretty cleverly in some of the debating, going through to the core of the thing, there was one group that very definitely wanted to use this as an entering wedge based upon a different philosophy, that the Federal Government ought to be in the field permanently.

The President, as I interpret it, presented the program solely on an emergency basis; and once the emergency—that is, it was created from the alleged lack of school classrooms due to nonbuilding in the World War II building and, also the suburbanization and the tremendous baby crop—that once that need were taken care of, that the Federal Government would phase out.

Now, I think there is a fundamental difference in philosophy. And I recognize that there are those who sincerely believe that Federal grants should continue and should develop as opposed to the philosophy that they might be used to stimulate the States to meet their needs and then go out.

Now, Professor Fernbach, I believe you would trend to take the point of view, would you not, that this is an area that the Federal Government properly goes into? Or would you?

I would like to get your comments.

Mr. FERNBACH. Well, I believe that the Federal Government should both phase out and phase in.

Representative CURTIS. On new areas?

Mr. FERNBACH. Yes. I have been on the Surgeon General's Advisory Committee, which is a citizen group that counsels with the Surgeon General on the administration of the Hill-Burton Act.

Now, there are determinable goals for beds in hospitals in relationship to population, which reflect certain need criteria. In certain areas, and perhaps ultimately for the entire Nation, we may construct enough hospital beds. Thus, hospital construction does not have to constantly go on year after year. There are, however, other aspects of the health need, tremendous ones, which involve the national interest and in which we are badly lagging.

But, we have made great progress in the construction of hospitals. We have made little progress, however, in other directions.

You may find that a proper investigation would recommend no diminishing of the total Federal money we spend for health purposes, but might suggest diverting it from one area of the health need to another, as older needs are met.

Similarly, in the field of vocational education, it is my understanding—I am not a specialist in this field—that certain Federal grants run specifically to certain types of vocational training. But our technology changes. Maybe there is no longer such an urgent need for a certain type of education, but a substantial need for assistance in accelerating newer types of education.

Now, on the phasing in, as well as phasing out, I happen to believe that there is a great need for Federal assistance to meet the complex problem of distressed areas, both rural and urban. I also believe that there is a critical need for Federal aid for school construction. So I say that we must constantly reappraise our Federal grant program in terms of changing needs and times. And there should be both a phasing in and a phasing out.

But, in toto, I believe that in terms of dollar aggregates Federal grants should move upward and probably will move upward, over time.

Representative CURTIS. I wonder if there is any agreement on the panel that our local and State governments need some overhauling, if there is going to be real progress in this area?

Certainly some of the papers actually say that, but would it be general agreement that our State and local governments have not been able to change their structures sufficiently in order to cope with these needs.

Mr. Buchanan?

Mr. BUCHANAN. Yes, sir. In that connection, Mr. Congressman, I would like to make one comment on Mr. Fernbach's summary statement. He seemed to make the point that there is no real distinction between the Federal-State breakdown and the State-local breakdown.

In my feeling there is an extremely important difference between the division of power between the Federal Government and the States, and the State and local governments. The State-local breakdown is less significant—local governments are creatures of States. The important problem in terms of overall power centralization, maintaining a genuine Federal political structure, is this Federal-State breakdown. A great deal can be done and should be done, especially in this problem of metropolitan areas, in revising the whole State-local structure.

Perhaps with the States assuming more responsibility, especially in the field of shared taxes, and so forth.

I think it is very important to make that distinction.

Mr. BENSON. Basic equalization is by the State government rather than the Federal Government. This practice fits the Constitution and the State is an easier unit in which to work out equalizing problems. Equalizing over this vast country of ours is no simple task.

Representative CURTIS. I might develop that, if I may for a minute, with Mr. Fernbach, too.

On this problem of distressed areas, where do you think the mobility of labor fits in there?

The traditional way of solving a problem—and as a matter of fact for economic growth—if an area becomes outmoded economically, the traditional way has been for labor to move, and the population to shift. With the passing of frontier, we saw a tremendous change in our economy to illustrate the point further. Surely there are two ways of redistribution. One, of course, is for the populace to move.

Now, if you had the Federal Government enter into an area on, say, a distressed area basis, you could be causing damage if you are holding a populace in an area on an uneconomic basis when the best thing would be for—probably in the long run, at any rate—would be to have them move. I don't mean to minimize the immediate problem we have of the families that are caught in that thing.

Like the shift from the coalfields of West Virginia, and probably some situations in New England. I wonder if there might be a little discussion on that as to whether that isn't the alternative to solving the distressed area problem, and gets into this redistribution problem, that you could cause economic damage to growth and stability by freezing an uneconomic situation by having the Federal Government move in.

Mr. FERNBACH. I would make the point that the proposed legislation would involve Federal, State, and local cooperation; that it would be rather limited in scope; its greatest effect would be to bring governmental units into cooperative relationships and coordinate some very important existing forms of aid that can help some of these localities.

Representative CURTIS. But would it be on a sort of temporary basis to meet the immediate impact?

Mr. FERNBACH. It would be temporary insofar as there would be statistically determinable criteria for establishing which communities were eligible for aid, the degree of unemployment in the local

labor market, and the length of time that unemployment had continued.

Thus, aid would only go to an area that could be statistically determined as suffering from chronic distress. When the community is restored to reasonable economic health—

Representative CURTIS. With the same population.

In other words, that is what I am trying to get at.

Would the object be to retain the population there, or to cooperate in shifting it?

Mr. FERNBACH. The object would be twofold. There is always out migration.

You don't want to freeze the American economy. Mobility is highly important. There will always be plant migrations for legitimate reasons. There are also some migrations for illegitimate reasons in terms of the economic and social aspects.

Much can be done to assist a community to restore itself to economic well-being. I don't think that a community of thousands of Americans in which the populace owns their homes, has millions of dollars invested in public facilities, and in which wage earners, professionals, storekeepers, and others have a tremendous stake, can simply be left to die.

You can't tell its people simply to move elsewhere.

Representative CURTIS. I appreciate your development of that. I thought that was a good example of a specific case of bringing to bear some of these general questions on it.

I have one other factor to throw into the discussion.

Mr. MAXWELL. Can I comment on that?

Representative CURTIS. Yes.

Mr. MAXWELL. I should like to support your point of view in general terms, that there is a danger. Federal grants or State grants may bring about what economists call "misallocation of resources"—freezing people in an area where they should not be and freezing resources in an area where they should not be.

I think there is a danger in that, especially when you consider that grant programs tend to live on and on and on. They hardly ever are cut off.

It seems to me that if there were Federal aid to distressed areas, it ought to concentrate to a very considerable measure on adjusting the community, which may mean shrinking the community. It may mean taking people and resources out. And that is an awfully tough decision to make.

Representative CURTIS. Thank you for your contribution.

The other factor I wanted to throw in for possible comment, as brought to mind by Mr. Benson's reference to phasing out of the Federal Government in vocational education: there is another thing that occurs, as I see it, in this picture. That the Federal Government might be going into an area in grant-in-aid and at the same time going into the same area in a direct program.

Now, take vocational education; as I have tried to express in previous panels, the Federal Government has moved into that field, and has ever since World War II, to a tremendous extent through the military; setting up identical classrooms—if you take a look at them they are no different really, except that they are better equipped

than the vocational classrooms throughout our high schools throughout the country.

In testifying before the Appropriations Committee on that particular thing, I have always thought that it is better for the Federal Government to phase out the military and the direct program first, before the Federal Government discussed phasing out the grants-in-aid, which at least preserve what I regard as the efficiency—more efficient system in our high schools throughout the country.

But that carries over to other programs; social security, for example. There the competition lies in the area not with the State and local, but with the private life insurance companies. And so the Veterans' Administration has been the device for moving into the medical field in a tremendous fashion.

So, I think that on all of these programs, if we think of them from the standpoint of performing certain functions in our society, that the grants-in-aid can frequently be an alternative method or additional method to a direct movement of the Federal Government into some of these areas. And to some degree, isn't it a question of (1) should the Government go in at all? (2) If they are going in, how should they go in?

That is why I was emphasizing this temporary versus a permanent approach, as one aspect.

Then there is the question of analysis of these things to find out to what extent they have gone in.

Now, education is an example of something where through devices the Federal Government under different approaches has gone in. In one instance, under defense. In another instance in medical under the phase of veterans and so on.

Mr. MAXWELL. I support that position, sir. If the Federal Government is going to get in it, it seems to me an awfully easy and good way to get in is via grants.

Mr. BUCHANAN. I would not accept that position. I think that too often grants tend to be sort of a facade behind which the Federal Government moves in. In many cases it seems to me that it would be preferable to have the Federal Government intervention open and aboveboard.

Representative CURTIS. So you can see it?

Mr. BUCHANAN. So you can see it; yes.

Whereas in grants we maintain the pretense that the States are really performing this function when they are really doing it only as administrators for the Federal Government.

Mr. BENSON. You confuse responsibilities and you confuse expenses, Mr. Curtis, with grants, in many cases.

I could give specific examples of this. One of our trustees was on a little stream pollution board, a regional thing, in California. The district administrator talked to him about a town which should put up a more expensive plant than they wanted, or thought would do the job. The town didn't want to do it, but the district administrator said, oh, when they find out the amount of Federal money available, then they will put up this more expensive plant.

Well, we have a diffusion of financial responsibility in the grant program there. This town should, of course, put up an appropriate plant. There is no question about it.

I would like to go back for a moment to your earlier statement. It certainly is true that a number of the States have a real job to do in reforming their own administrative setup, and that our local units of government are in many cases not well suited for modern times. But I don't think it follows from that that those bodies should not be the ones to determine their own needs.

I think it is very important that they should determine their own needs. Thus they will find out that their own machinery is not appropriate.

Incidentally, I think the weakness of State and local government can be greatly exaggerated. In the years I have been watching it, municipal administration has improved tremendously. There are few cities in our country which you would call badly governed. Our State governments are at a much higher level. Let us remember the Federal Government isn't altogether perfect.

So, we can find disadvantages everywhere. But when you have something wrong with a unit of government, which has a responsibility, how do we handle this? Do we go to a higher level of government? Or do we ask the citizens in that unit to assume their responsibility, and fix up their own political machinery so they can function?

It seems to me the latter, wherever possible, is the American way of doing things. It goes back to our fundamental desire to place on our citizens a responsibility for doing things themselves as much as they can. This doesn't mean at all that there may not be fields where there is a national interest that is so strong that you need to have a grant. I wouldn't deny that. But I think we are drifting into a habit of saying, "Well, things are wrong with the State and local government, so the Federal Government must step in."

Basically that analysis is incorrect, it seems to me.

Representative CURTIS. Is there something that can be done to enable the State and local governments to assume responsibility?

Mr. BENSON. The President's speech at Williamsburg said, we have come in several cases to the conclusion that the Federal Government has had to move in in various fields with grants because the States and localities weren't doing the job.

A logical question to ask is: Did you, Mr. President, write the governors of the States that weren't doing a good job and tell them they weren't and tell them to do a better job?

Mr. FERNBACH. That did happen, Dr. Benson. The President wrote to the governors of all of the States, reminding them that the original expectation of the State administered unemployment compensation laws was that unemployed workers would be reimbursed to the extent of two-thirds of their wage loss, for a reasonable period of time. He suggested they might take action through their legislatures to move toward the achievement of at least 50 percent of wage loss. I don't think that there are more than 1 or 2 States that have met that challenge.

Mr. BENSON. This does not happen to be one of the fields to which he referred in the Williamsburg speech.

Mr. FERNBACH. Yes. I think his Williamsburg speech, which I do not agree with completely, might have been very much broader in its consideration of the issues that the American people face involving Federal-State relationships.

I really wanted to intervene to express my disappointment that Prof. Harold Groves isn't here. While I think I am the only one among us who is not a professor, he is the only panelist who has been a State senator. I thought the comments in his paper with respect to State governments were very thoughtful and of great interest.

I agree with Dr. Benson that reform movements are effectively at work at the State and local level; that probably the situation is improving. We hear so much about what yet needs to be done because more and more Americans are becoming concerned about State and local government. I happen to be employed by a large nongovernmental organization. We have been continuously at work on the problem of trying to make the State governments more responsive to the needs of the increasingly larger part of the population that lives in urban centers. We have worked hard at this reapportionment question but with very little success.

The State of California—I was noting some figures recently: you have such ridiculous situations as the county of Los Angeles having over 4 million people and 2 senators in the State senate, and 3 counties with less than 15,000 people having 2 senators.

Mr. BENSON. Correction. Los Angeles County has only one senator.

Mr. FERNBACH. Excuse me. Then it was 1 and 1.

Representative CURTIS. That is a national problem.

Mr. FERNBACH. There is this tremendous problem of adequate State budgets. This runs to the problem of what State governments should do and how they can raise the money to do it. We have State constitutions that it seems almost impossible to get changed. They are exceedingly archaic and unresponsive to present needs. But yet there is improvement. We must work—while we seek to improve Federal grants and their operation—to improve our State governments. And equally important is the improvement of metropolitan area government.

Representative CURTIS. Mr. Buchanan?

Mr. BUCHANAN. It all depends on who is going to do the nudging in this particular case. I think Mr. Curtis, in his first remark, pointed out a regrettable ambiguity in my own paper when he read this statement of mine, where I said the needs exist and the less responsibility the State assumes, the more the Federal Government must assume. In this statement, I was giving my interpretation of the President's position.

I categorically deny this view. It seems to me the only way in which we can determine State need, or the way in which a State should be nudged, is by the choices of the States themselves.

To be sure there are many ways in which the States are not efficient, and could be improved, and the whole State-local breakdown needs to be reexamined. But there is no criteria whatsoever that we can use to say that we need so many hospitals. I categorically reject the idea that there is a certain ratio that is determinative; that we can somehow judge a State by whether or not it has so many hospital beds per person, or whether or not it has 50 percent compensation in unemployment, and so forth.

The only way we can determine that is in terms of States' actions.

Mr. MAXWELL. I don't think I go as far as Mr. Fernbach. But I find myself more removed from Mr. Buchanan and President Benson

than I thought I was. I think I am more sympathetic to them in general philosophy than appear to be at the present time.

Judging a State seems to me to be pretty extreme. The Federal Government has successfully nudged States over a good many years by way of grants.

Some of the results have been good. Let's take highway construction up to World War II. Up to World War II, who can deny that Federal grants did a whale of a lot for the States, localities, and the whole Nation. This was the clearest case in which there was, relatively, centralization of administration. I think highway grants were probably more centralized than most. Yet, it is the clearest case in which I think we have got good national results. We would still be in the mud to a much greater degree than we are, if it had not been for Federal aid.

Now, there are other instances, I believe, in which the Federal Government's intervention has been less happy. But I know something about grants historically at least, and I would like to know some instances where the Federal Government has really tried to centralize. The Federal Government has often, by way of grants, set up conditions which have remained inflexible to a degree, but that is a matter of inertia. Where has the Federal Government stepped in and tried to get control in any sort of a way to which the States have objected strenuously? I can think of none; looking back.

Now, it may happen in the future, even if it has not happened in the past.

So this business of centralization by way of grants-in-aid seems to be a much exaggerated proposition.

Professor Buchanan says there are no criteria. I admit there aren't any criteria that are completely objective, but how much of Federal expenditure itself is based on objective criteria? Mighty little. It seems Congress, in its wisdom, has to decide how much money to spend in this direction and this direction and that direction. And to wait for objective criteria would be quite impossible.

If I may take a moment longer, the necessity of revitalizing State and local governments—everybody says that. It is like being in favor of good, and against sin.

The report of the Kestnbaum Commission, which I commend to you gentlemen and which President Benson modestly perhaps can't mention, had some of its most eloquent and excellent words about the defects of State constitutions and of State-local relations. I know of nothing in the report of the commission that I admire more. They pointed out very vigorously what the States need to do and I hope that the States will do something without nudging.

The desirability of doing something at the local level is perfectly clear. The local levels can't raise much more than they are raising by property tax. And that is about the only tax they can raise and administer efficiently. You have got to give them some money. I don't see why you should not give it to them by State grants-in-aid.

I hope that you never give it to them by way of shared taxes. Professor Buchanan seems to favor that. I hope he doesn't mean a shared tax distributed to localities according to the area where it is collected.

In that case you will enrich the rich communities and impoverish the poor.

Representative MILLS. As I have indicated yesterday and earlier this morning, the Fiscal Policies Subcommittee's approach in the study of Federal expenditure policies is directed toward the basic objectives of promotion of a policy in this area that will permit economic growth, with minimum fluctuations in the rate of resource use and in the general price level. In this discussion of Federal, State, and local responsibility for public functions, we recognize, of course, that there are many other considerations that are importantly involved. But I think this subcommittee is concerned primarily with considerations of economic growth involved in the distribution of governmental functions.

Now, looking at that consideration alone, do we find reason for the subcommittee to devote any particular time to a consideration of the level of Government at which functions should be served?

Does the distribution between levels of government of functions desired by people, have significant effects in deterring economic growth, or permitting economic growth and stability?

Is there a reason to believe that if certain functions are performed by a local or State governmental unit that less resources will be used or that resources will be more effectively used than if those functions are performed by the Federal Government?

And is not that the crux in determining whether or not, for the purposes this subcommittee has in mind, a particular function should be performed by the Federal, or State, government?

I have asked a series of questions.

Dr. Benson?

Mr. BENSON. I am not an economist, Mr. Chairman, and I am probably the last person to answer some of these questions. I would like to make 1 or 2 comments, though. I don't think that this use of revenue can be the crucial point.

My difference of opinion with Professor Maxwell would be that this is a pretty fundamental thing in form of government. Do we really want to have all of our decisions made by 1 Congress and 1 President on governmental policy?

This could happen if we continued with the extensive development of grants. And I take it that for very profound reasons of political theory and philosophy Americans have made another choice and wish to continue with that choice.

But I do suppose that there are considerations that are certainly pertinent to your question.

One point I would like to make, for example, is that the Federal Government is now granting funds—and has been since, I think, about 1934 or 1935—in the public-assistance field, which by nature have to be pretty steady, continuous expenditures. The Federal Government has, however, made no provision that I know of for commitment of any assistance to States or localities in the field of general relief, which could conceivably be something that clearly went beyond the physical capacity of States and localities in the event of a fairly serious recession.

So there is a real question whether the Federal Government has moved into the right aspect of the public-assistance field.

I have a hunch that in most cases, as one of the panelists commented in his paper, these are expenditures that are so thoroughly institutionalized, the ones in which State and local governments are involved, that you can't figure there is very much change. That is, this isn't the type of thing in which Federal appropriations can be moved up or down very well for purposes of the effect on the economic cycle. These are just needs that have to be met.

I have looked into this, once, a little, for the CED. You could have some delay maybe of highway construction of certain sorts or some public buildings. But by and large, if you develop a new community, you must have schools and roads and you must have them right away. They are very necessary things.

So, I don't see much opportunity for action of varying governmental expenditures in these fields that are particularly State and local. However, I am not an expert on this.

Representative MILLS. Are you saying then in answer to my question, that the subcommittee will not find much in this particular facet of our study to determine a proper Federal expenditure policy for economic growth and stability?

Mr. BENSON. I should say something else. I think there is a general point that is very applicable here. The subcommittee has got to be concerned that there not be a Federal tax policy which takes so much of the national income that this might prevent our having the kind of growth we want to have. You have got to face very large expenditures for defense and for other purposes affecting the national economy.

The more you get the Federal Government involved in what are now State and local fields, I think the more you tie yourselves down, because the State and local expenditures are largely ones of very real continuity.

Representative MILLS. When you say "tie ourselves down," do you mean we put ourselves in a position of deterring economic growth and stability?

Mr. BENSON. You tie yourself to the certain expenditures which I think in a number of cases do not contribute to economic growth or stability.

I believe the President this last year wished to reduce the expenditures within the budget. I think the midterm report indicates he wasn't able to do so in certain fields. Some of these were specific grant fields. The Federal Government was committed to meeting certain formulas.

Representative MILLS. I have served, as a member of the Ways and Means Committee, on an informal subcommittee in the past before the Kestnbaum Committee came along, to work with governors in this field; and I have been interested in it for a long time, for many of the other important reasons that come to mind than those in the field of economics.

I do not mean to disagree with anything that has been said, because I find myself in agreement with some of what each of you has said, and in disagreement with some of what each of you has said. I am not belittling, at all, in my question, the need that exists for preservation of a strong State and local government, and those units having responsibilities to render services to the constituents that are served by them.

But in this particular inquiry, I am concerned with the one point primarily of whether or not there is any distinction in use of resources between the Federal and State, and local governments, that we should look into this trying to place functions with one level or the other, because through doing so we either create the atmosphere for greater economic growth and more stability or not.

Mr. BENSON. Why don't you let Professor Buchanan answer that.

Representative MILLS. Professor Buchanan, you have made a major argument for the preservation of State and local governments.

Now, will you think with me in terms of the advantage to be derived from your position. The argument you make looking at it solely from the point of view of whether or not we can promote economic growth and stability?

Mr. BUCHANAN. In that connection I would like to start off by quoting the last two sentences in my paper in which I said:

The proper environment for economic growth is a political, economic system characterized by effective decentralization of power. Undue power concentration can only be detrimental to economic progress whether this concentration be in the form of big business, big labor, or big government.

It seems to me we have to start off on the presumption that economic growth—and by economic growth I mean what we refer to as “growth in general standards and levels of living.” To be sure, power concentration in government devoting resources to one particular line can get distorted growth in the sense that I think the Russian economy well represents today, but this is not growth of the type which I assume is desirable.

Desirable growth is growth in all sectors, in general levels of living, and this can only come about by effective decentralization of power between the government and the private sector, and also within the government sector.

I think several socialistic experiments in this case provide us some reasonably useful, actual evidence that socialistic economies simply cannot grow the way a free economy can.

Representative MILLS. Pardon this reference, but one of the problems I have had in adult life is trying to prove in a practical way some of the presumptions that were given me or that I inadvertently developed when I was in school. I am not belittling the fact that I have had that problem, or criticizing because I have had it. I think we have all had it. But now we are faced here with this one situation that we are primarily concerned about. You have given a statement that I have read, that would lead me to believe that you mean that in order to have a proper economic growth wherein resources can be best utilized, and most efficiently utilized, that it is necessary for us to preserve a democratic system, which is the republican form of government based upon Federal and State, both performing functions.

Now, does it follow from that, necessarily, that we have the best opportunity of promoting economic growth by a division of functions? Do we not have to look to see and do we not have to prove as a matter of fact before we can make a conclusion that State and local governments can better utilize resources than the Federal Government can in the performance of functions, if we are going to promote economic growth and stability?

Now, is not that the situation?

Mr. BUCHANAN. I think I would agree, Mr. Chairman.

Representative MILLS. What evidence do we have, Professor Buchanan, that State and local governments, in the performance of functions and services, can better utilize resources than the Federal Government?

Now, I think that is the crux of our problem, and I think you will find in certain functions very definitely that State and local governments can better utilize resources and that in others, the Federal Government can better utilize resources.

Now, isn't that for our purpose the line of demarcation?

And, is not that what we should be thinking in terms of as we progress with this particular phase of the overall study?

Mr. BUCHANAN. I would agree to this extent: I think that this is the immediate problem. This is the immediate problem.

On the other hand I would not overlook this overall problem which is—

Representative MILLS. Oh, no, do not misunderstand me. I am not overlooking any of them. I said, there are more important problems involved than this one we look to. But in our own studies here in the Joint Economic Committee, or a subcommittee thereof, I think we have to confine ourselves more or less to this one particular problem in determining a Federal expenditure policy.

Now, when we get into some of the other problems, there are other committees of the Congress that would want to look to those.

Mr. BUCHANAN. I do not think this other problem is divorced from economic growth at all. I think if it is agreed that the maintenance of a democratic system is essential for the type of growth we want, then we have to look at this problem, this overall larger problem, in terms of economic growth.

Representative MILLS. All right. We have done that. Now, let us get down to the specifics. Let us take some of the programs of government and see if they can be better performed and resources better utilized, if they are performed by local and State governments.

Of course we can lay aside the defense, which I think all of us will admit can only be performed by the Federal Government. And in the process the Federal Government could better use resources in the performance of it.

You suggest the State and local governments can better perform the function of road construction. So you would say that is one of the functions. If performed by the State and local governments, it would permit greater economic growth and stability through greater and better use of resources at State and local levels. Is that what you said in your paper?

Mr. BUCHANAN. I would not quite make it that clear—divorced from all other considerations.

The success of an integrated national highway system would perhaps lead to greater economic growth considering that alone. But I think your deterrent to growth involved in further centralization of power must be offset against these admitted increments to growth which an integrated national system will involve.

Representative MILLS. Well, let us take some other program. Now you would not refute the general thought that I obtained from reading your statement that this is a function of State and local government in your opinion?

Mr. BUCHANAN. That is right.

Representative MILLS. Let us look. You say "social security is a proper function for the Federal Government," I believe?

Mr. BUCHANAN. Well, I made no specific reference.

Representative MILLS. I know, but you would say so?

Mr. BUCHANAN. I think so.

Mr. BENSON. And I would say so.

Representative MILLS. All of you would say so.

Mr. MAXWELL. You mean OASI?

Representative MILLS. Yes.

Mr. MAXWELL. What about unemployment insurance?

Representative MILLS. That is a State program already.

We in the Congress provide the funds for administration. But the States levy tax in lieu of a Federal tax, and it is considered here, at least in the Congress, as being a State program, a State-administered program.

Unemployment compensation, we are talking about.

Mr. FERNBACH. I would say that on that particular program, the States have not measured up to the level of efficient operation.

Representative MILLS. Well, I knew that your organization looked with some degree of concern at the programs that existed in some of the States because of the level of payment and the time of coverage; among other things.

And you have tried through your organization to bring about some improvements in those situations in some of the States.

Now, were you about to say so?

Mr. BENSON. Yes. I would like to add one administrative consideration. I recognize the very strong arguments for nationalization of unemployment compensation. Of course, the employment service would have to be nationalized along with it. It would be unthinkable to try to separate those two as an administrative operation.

There are additional problems involved if one does that. Then you begin to divorce employment service from various State and local operations. And maybe you get a fuller utilization of resources by keeping the present arrangement in which you have both the degree of national interest and State interest in unemployment compensation.

I do not think, frankly, there is a perfect administrative answer to that problem.

Representative MILLS. Well, veterans' programs would have to be Federal, would they not?

There is no possibility of—

Mr. BENSON. There are, of course, State programs, most of them are ill advised, I think.

Representative MILLS. I understand. But we would not find that a transfer of those programs to the State would promote economic growth and stability.

Mr. BENSON. We do not want the States to have them, no.

Representative MILLS. You have made a study of this. What programs of the Government that we presently operate would you suggest should be transferred to the State and local government in the interest of economic growth and stability because State and local operation of these programs would result in more efficient use of resources?

Mr. BENSON. I would certainly agree with Professor Buchanan that

I do not see why the States cannot run the highway departments. As a matter of fact, they do to a large extent now.

And the standards for highway construction, the Bureau of Public Roads people would agree, to a very large extent are determined by the State administrators who meet in consultation with the Bureau of Public Roads.

Mr. MAXWELL. It seems to me a great deal of the credit should go to the Bureau of Public Roads.

Representative MILLS. Do you reach that conclusion because you feel that if the Federal Government is entirely out of it, it would function better?

Mr. BENSON. There are some losses that come in the highway field that should be recognized. For example, there are specific provisions in the Federal grants as to percentages of the funds which must be used on rural roads, and so on. These allocations do not fit the needs of every State by any manner or means. They make very little difference to a wealthy State like my own. They might make some real difference to a smaller State or highly urbanized State.

Mr. MAXWELL. It seems to me the Congress is moving in a direction in which I hope it continues. I would like to see the Federal Government take over wholly the Interstate System. Not only would I like to see it provide 90 percent, which is too high for a grant, but take over interstate highways 100 percent; not only construct them, but maintain them.

Representative MILLS. Now, is your reasoning because you feel that if the Federal Government does that, that there will be more efficient use of resources?

Mr. MAXWELL. Yes, sir.

At the same time I would cut the remaining Federal grants for highways, cut them in time to zero.

Mr. BENSON. I would not disagree too much with Professor Maxwell on that.

My contention is that our present system of highway finance is too complicated and that the Congress is making judgments which affect the portion of State and local moneys to be spent on rural roads, for example, which the Congress just cannot know about in the nature of things.

It is too complicated a picture. You cannot set one pattern in Washington which will apply to all the 48 States. So that Professor Maxwell's solution of having certain interstate roads which the Federal Government supported, and then other roads for which there was a clear-cut State and local responsibility, would seem to me to be better.

Representative MILLS. Well, I am not arguing with any of you, because I am at this point interested in the view of each of you, whether they agree with my own or not.

Now, we have already said that defense would be one that we have to put with the Federal Government. International affairs and financing would be in the same category, would it not? Would there be general agreement?

Mr. BENSON. Yes.

Representative MILLS. That would have to be.

Agriculture and agricultural resources, if there is to be any program at all, has to be a national program?

Mr. MAXWELL. Not with respect to grants. I would cut the grants for agricultural education as rapidly as you can cut them.

Representative MILLS. Would all of you agree with that?

Mr. BENSON. Well, I would not cut them all. I think the agricultural extension service with the grants-in-aid program has really been a fairly reasonable pattern.

There has been some degree of national interest in it. But to have side by side, for example, as we have in my home county in northern California, Soil Conservation Service people who are there to educate us directly as to soil conservation practices, and a county agent, who is supported by the Extension Service, really does not make very much sense.

It is an unduly complicated scheme. The direct Federal program is in competition with the grants-in-aid program. And it certainly could be simplified.

Representative MILLS. We are thinking in terms in this year of an outlay of \$5 billion for agriculture and agricultural resources.

Now, you are thinking in terms of the Federal Government stepping out of the field of vocational education and perhaps the soil conservation work?

Mr. BENSON. The Kestnbaum Commission recommended—or at least it started to recommend, and thereby stirred up quite a hornet's nest—that the States should have an opportunity to take over soil conservation work on a grants-in-aid basis following standards set by the Soil Conservation Service in Washington. It seemed to me an eminently sound recommendation.

Representative MILLS. Now, was all of that, plus your view with respect to vocational education—are you led to those conclusions because you think that State and local governments can better utilize or more efficiently utilize the resources?

Mr. BENSON. Yes.

I think, Mr. Chairman, that a corporation which tries to run itself by telling each official, "Well, you shall have some power in this field, and some in this, and some in that, and somebody else shall have some," is bound to get itself into trouble.

I think that is what has happened to us here. For example, in the agricultural field we come down into the county, the average county, with 2 or 3 direct Federal operations which are creating their own local advisory bodies, and then another operation, which comes through the State and the county. I do not think this makes sense, and I think it costs us money and gives us a confusion of responsibility.

I would like to see the structure simplified. I think this could be done with substantial saving.

Representative MILLS. Is there general agreement now on what has been said?

Mr. FERNBACH. Well, I am in this position. I am not sufficiently informed with respect to the detailed administrative problems of all of these Federal grants-in-aid, and, thus, I cannot, with wisdom, express an opinion on all of them by any means.

With each program there is a consideration in terms of purpose; there is a consideration in terms of method of financing; there is a consideration in terms of the efficiency of operation, all of which are relevant.

Representative MILLS. Well, interest on the public debt we would do well to transfer, but we cannot. We have discussed highways.

We now come to public assistance.

Mr. BENSON. I feel that there is a difficulty in public assistance. The Federal statutes, as I understand it, require that payments should be made only in the event of need. It is pretty well known, as you know, that the percentage of the population, for example, above 65 on old-age assistance in the States varies tremendously from State to State. It varies much more than the statistics on OAA would indicate it should.

This is a clear conflict. Some States are using the Federal law to get as much money as they can for people over 65. Other States are interpreting this law very strictly and are carrying the minimum of cases.

It seems to me that a clearer fiscal responsibility on the States in that situation would be better.

Representative MILLS. But that does not mean the elimination of the Federal responsibility?

Mr. BENSON. Well, I would just as soon eliminate the Federal responsibility there. Of course, you know the thought of the original drafters of the Social Security Act was that old-age insurance would take over from the old-age assistance field. They did not expect the Federal Government to stay in the categories as it has stayed in them. And I am not at all sure that this is a constructive use of resources.

Representative MILLS. The very next Congress that convened evidently forgot what the first Congress had in mind, because, until a few years ago, the emphasis in improving the two programs was largely on OAA.

And it has only been in recent years that we have been able to attain a balance, at least in average payments, between the two programs.

Mr. BENSON. That is right.

Representative MILLS. And the cost of the old-age assistance program is perhaps as great today as it has been at any time.

I do not remember the figures.

Mr. BENSON. It dropped slightly for the first time a couple of months ago.

Representative MILLS. Because of the increases the Congress has voted, even though the numbers in the States eligible for participation have declined.

Mr. MAXWELL. In terms of useful allocation of resources, it seems to me that the Federal Government should get more out of this field than it does.

And the way that it seems to me it should move is by way of converting Federal grants for public assistance into a block-grant basis, so that a closed grant is given to a State every year, which would be a total sum that Congress votes every year. Close the grant for each State on some sort of an objective basis.

I need not go into the details. It can be done.

At the present time, it is scandalous to see Federal grants used in such an unequal way from State to State, regardless of any basis which I could defend or I think which anybody could defend. And, therefore, it seems to me that you had better bundle them up and give a block grant for public assistance, letting the States spend that money,

as long as they spend it on public assistance, in whatever way they wish.

One of the defects of the grants at the present time is that the Federal Government has not got enough control, rather than too much control, with respect to public assistance.

Mr. BENSON. At least it is not exerting it.

Mr. MAXWELL. It doesn't have it.

Mr. BENSON. You are really encouraging extravagant expenditure on the part of certain States. And Professor Maxwell is quite right as to this philosophy. I would think Professor Maxwell's conclusion as to a closed-end grant would be an improvement.

Representative MILLS. You think it would actually sustain approximately the same type of payment within the State at least Federal expense?

Mr. BENSON. Of the same type of payment to those who really need it. There are States where payments are being made to those who do not need it.

Representative MILLS. Well, the Federal law is very clear that we do not participate in assisting States in defraying these payments except in the case of need.

Mr. MAXWELL. The States determine need, and they do not determine it uniformly.

Representative MILLS. Are you suggesting that the Federal Government should determine the need?

Mr. MAXWELL. No, sir. I suggest they get out by giving a block grant.

Representative MILLS. If we get out of it, how are we going to correct the situation when it is the fault of the State at the moment?

Mr. BENSON. You give the States a specific sum of money and not dependent on how many cases it certifies, and you will find that State changing its policies fairly rapidly and come closer in line with the national policies.

Representative MILLS. In the field of natural resources, do you know largely what that implies?

Mr. BENSON. Yes. I have the feeling that we have got to rethink this whole national resources problem. I come from a Western State. And in the 11 Western States, more than half the land is owned by the Federal Government. This land is, some of it, not being well used. And on some of it there is hardly any effective administration.

This is a place where I think I would like to see some more grants-in-aid.

I would like to see the Federal Government helping some of the Western States, which, at the present time, do not have the staff to establish themselves so that they do have the staff to handle some of their public lands effectively. I do not think the Federal Government is developing those public lands well. I think it is not in any way training or helping a lot of these States to do it.

My own State, I think, could handle them perfectly all right, but there are a number of Western States that could not. They do not have the staff.

Representative MILLS. Could your State keep some mines in operation through a stockpiling program?

Mr. BENSON. No. If the stockpiling program is desirable, I would leave that to the Federal Government.

Representative MILLS. Well, it is in natural resources.

Mr. BENSON. No, I do not think we would want to get the States into that.

I was talking about timber resources, water resources, where we have frozen the States out to some extent. I think this is undesirable. We should, rather, have tried to train them. Here Professor Maxwell, I think, has a perfectly legitimate purpose for grants-in-aid.

Representative MILLS. We have not got rid of much that the Federal Government is doing.

We are now at housing and community development.

Mr. BENSON. I think we got rid of a lot of stuff in agriculture, Mr. Chairman.

Representative MILLS. We heard that all day yesterday.

Mr. BUCHANAN. I would not stress so much getting rid of things that the Federal Government is already in. I place a lot of emphasis on these things that are historically determined.

I think for political reasons alone, it is very difficult to get out of anything. That is the reason I reject this idea that anything is an emergency, because once you are in, you are going to stay in there. But what is more important to me is this idea of not getting in any new things.

Representative MILLS. Well, I think you have got a good point there, because some studies that we have made earlier this year brought out information from some who had made a very careful study themselves of the rising trend in Government spending.

It brought out the information that we might expect in an economy growing at 3 or 3½ percent each year that existing programs of government would cost us within a 4- or 5-year period some \$80 billion a year.

Just existing programs alone, without the addition of a satellite program or a missiles program or any greater costs, or school construction program, or any new program, is what I am referring to. We would be spending that much within that period of time.

Rises in population and other factors lead us to believe that the costs of many of our programs, of necessity, must go up, you see. Or it led them to believe that when they made the statement to the subcommittee.

Mr. FERNBACH. I did not want to revert back to a discussion of social security.

I was a little concerned when reference was made to the fact that the cost of old-age assistance had not declined, although the numbers of persons assisted has. You have here the specific problem living-cost increases and also changing concepts of what is a minimum standard for the needy aged in an America that has been increasingly prosperous for 15 years.

So, we cannot view this cost problem only in terms of a fixed-cost relationship to another point in time.

Representative MILLS. Are you saying that as we eat higher up on the hog ourselves, that we are going to demand more lace-trimmed services of the Government?

Mr. FERNBACH. Yes. As the standard of living of the American people rises, it is inevitable that they will seek greater increments in their standard of living through actions of Government rather than through their own expenditures as consumers alone.

That could be documented in many respects.

Representative MILLS. I think you could prove that, yes.

Housing and community development. Is that a proper Federal function?

Mr. BUCHANAN. Not at all in my opinion.

Mr. FERNBACH. Yes. In addition, I think the Federal Government can do much in this area to promote urban renewal and planned use of resources in metropolitan areas.

Representative MILLS. Do you agree, Professor Benson?

Mr. BENSON. I am not at all sure the Federal Government should be in these fields.

As a matter of fact, the way it is operating and has been operating, it has kept State and local interest in these fields from coming up in certain cases. There has been a fairly deliberate effort to bypass the States as far as housing is concerned, which I think has been unfortunate.

Mr. MAXWELL. With that I would agree, although I want the Federal Government in.

Representative MILLS. To what extent do you want the Federal Government in housing and community development? Should the Federal Government's interest be somewhat on the basis of satisfying the need of a low-income individual, or should it be, as it has been for some time, satisfying the needs of those who are above what we consider to be low income?

Mr. MAXWELL. I prefer to emphasize the low income part and to skip the middle-income part altogether.

Representative MILLS. Would you agree with that?

Mr. FERNBACH. I would agree in part.

I think we cannot overlook the fact that in most of the 172 metropolitan areas of this country in which over 60 percent of our people now live we have an accumulation of 200 years or more, in many instances, of community blight and dry rot. To replan and rebuild metropolitan America, which we must do, is a herculean task. I believe that Federal resources, part matching and part to spur planning, are necessary.

I have a colleague who will speak on this subject on a later panel.

Representative MILLS. Let me look at public education. We have talked about vocational education. We are spending at this time \$400 million in the field of public education. Should the Federal Government get out of that field entirely? Can the States better utilize those resources?

Mr. MAXWELL. Is that mostly for research, sir?

Representative MILLS. No.

Mr. BENSON. It is aid to vocational education and agricultural education.

Mr. MAXWELL. I have not said that I would like to cut Federal grants in Federal education and vocational education. It should not get out of research and federally affected areas.

Representative MILLS. This is mostly a Federal program as it now stands.

Mr. BENSON. I think it should not get out of that, but it could be looked at much more carefully in terms of what is the direct cost of having a Federal operation in the area. There are times when you

have a federally owned factory in an area—and this is something definitely off the tax rolls. There are other cases where a boy or girl's parents happen to be located at a naval base and there is plenty of assessed valuation around it. This is a difficult problem. The Office of Education people would say it is a difficult problem; but clearly, insofar as this is the equivalent of an "in lieu" tax payment, it is a perfectly appropriate thing.

Representative MILLS. Public health. Should we get out of that field?

Mr. FERNBACH. May I express an opinion on education before we move to public health?

Representative MILLS. Yes.

Mr. FERNBACH. While I have indicated that vocational education constantly needs reevaluation in terms of the services being rendered, their timeliness for federally impacted areas should continue.

I also believe that Federal aid for school construction is imperative. I think it is a tragedy that in this Nation we can find a consensus to build highways but not to build schools.

Representative MILLS. You are talking about a permanent or temporary program of Federal aid to school construction?

Mr. FERNBACH. I would not at this moment say that a permanent program over a long period of time would be my personal objective.

I know the need is here now. And it should be met by doing what we can as fast as we can.

Representative MILLS. Do you believe if we ever started such a program, we would ever stop it?

Mr. FERNBACH. That question I should ask the chairman, who comes from the Congress.

Representative MILLS. My own guess is that it would never be stopped.

Now, public health.

Mr. BENSON. I think the grants ought to be simplified. They are complicated, and they cause trouble. But by and large, this is probably a place where the degree of popular responsibility cannot be very great, where it is important to have the levels of government operate together, and the relatively small grants are probably a useful addition to our Federal system.

Representative MILLS. You are saying, therefore, that we should not get out of the field? We should simplify our procedures, though?

Mr. BENSON. I would think so, yes.

Without being an expert, it seems to me offhand that this is a pretty desirable thing. If we are controlling epidemics and so on, you want to have your Federal and State and local people working closely together.

Mr. BUCHANAN. I think I would agree with that. I think in a lot of these fields there are certain built-in schemes already operating.

My main emphasis would be: Let's not expand these programs. Not that we necessarily should get out of what we have.

Mr. FERNBACH. I would say I think this is an area of Federal assistance to States and localities in which there is probably the broadest acceptance by the public. I think a point of future emphasis should continue to be research in the medical field.

Perhaps only the Federal Government can provide facilities to adequately go after diseases like cancer and many others, and that dollars spent in this manner are useful.

Representative MILLS. You would agree that we should stay in the field?

Mr. FERNBACH. Yes.

Mr. MAXWELL. I think we should stay in and probably expand. But I agree with President Benson in this respect: That there is a great desirability of converting many of these grants to a block basis and elimination of many detailed conditions that inhere in them at present.

Representative MILLS. All of you heard, perhaps, or read, what the President said at Oklahoma City recently about the need for this larger program of participation in the development of education, and so on, of scientists.

Are you all in accord that that is an area now that requires a Federal program?

Mr. MAXWELL. Yes, sir.

Mr. FERNBACH. Yes, sir.

Mr. BUCHANAN. No, sir; I would not.

Mr. BENSON. I don't know.

Representative MILLS. How would you handle it?

Mr. BUCHANAN. I would come closer to what President Benson said—I really don't know. But I don't simply accept on the face of it that we need to have Federal support for education in science.

Representative MILLS. He was very specific in his statement, was he not? The President was very specific in his statement and put apparently the need or the suggested program on the basis of defense need.

Now, if it is a defense need, we have already agreed that the Federal Government has to look after defense. So, if it is needed in the interest of defense, could we argue that even though it is in the field of education, that the Federal Government should not participate in some way?

Mr. BENSON. Of course, housing and medical care are essential for defense in the long pull.

Representative MILLS. So is the agricultural program. But what would you say to that, Professor Buchanan? Would that sway your thinking any, that it is needed in the interest of defense?

Mr. BENSON. I think there is no doubt that there are indications that our educational program, essentially our programs in scientific education, leave something to be desired.

But the real question is: Are we willing to pay the cost of achieving some sort of impetus for improvement in that by allowing the Federal Government to move in?

I just don't know. I do not accept it on the face of it that the need exists, and that the Federal Government, therefore, moves in.

Representative MILLS. Well, now, your position on the whole, Professor Buchanan, is this: That you are suggesting that so far as new programs are concerned, we tell the States and local governments that our cash register is closed; that they will have to perform these additional functions, or new functions, themselves?

You would not even look into the question of whether more efficient use of resources could occur through Federal programs and State programs in looking at the new program.

Mr. BUCHANAN. Not particularly, that is true.

Representative MILLS. You just close the door?

How should we look at these new programs? Should we just say, "No more," or should we try to apply some test in determining whether they should be Federal or State?

Mr. BENSON. Maybe I am idealistic, but I would say we are wasting a lot of money now in the field of agriculture, in the field of veterans, in a number of our grants-in-aid programs.

I would like to see those eliminated.

Representative MILLS. You mean the waste?

Mr. BENSON. Yes. And I would like to see the Federal Government getting out of some of those fields quite completely. I have got a fairly big list in agriculture, for example, that I would get the Federal Government out of, or would move over to a grants-in-aid program in place of Federal operation.

I think there are a lot of places where what needs to be done will be done perfectly well by the States and localities at considerably less cost. Then I would not close the door completely to things like, say, a science program, if there is a specific demonstration that there are certain types of expenditures that are necessary to produce the kind of scientists and engineers we need to keep abreast of Russia. I would be for such a program.

It seems to me if there is a high degree of national interest and if you are not losing real public responsibility in your local bodies, that there may be other fields in which the Federal Government can move.

There may be others that I cannot foresee. But I do think we ought to be realistic and face the fact that the Federal Government is now in a lot of things which it is not making very much of a contribution to and is confusing responsibility, and is costing itself a lot of money. And I think this is poor utilization of resources.

Representative MILLS. Now, our criticism so far of functions apparently goes into the three categories that were drawn for us yesterday by, I believe, Professor Thompson. He suggested we should have a budget not only that projected costs into the future but that characterized functions as to capital investment, consumption, and redistribution of income.

The observations that we have heard here this morning from you gentlemen as to proper vesting of functions in levels of government would apply not with respect to any one of these divisions that I have referred to, but with respect to functions included in all three divisions as I gather. So that we would not say that capital-investment programs were primarily Federal.

We would not say that consumption programs were primarily Federal, or that redistribution programs were properly Federal participation programs?

Mr. MAXWELL. I am not clear what his distinctions are, sir. But it seems to me that our suggestions cut across the three categories.

Representative MILLS. I am not intending to ask it in a question. I was making that observation.

Mr. Curtis.

Mr. MAXWELL. Could I make one observation, sir?

Representative MILLS. Yes

Mr. MAXWELL. Are we going to discuss it all? This matter of countercyclical use has been mentioned by President Benson, and he threw it out of the window. I would disagree. It seems to me there are possibilities of using Federal grants for countercyclical purposes.

In the first set of hearings that you had, there was some testimony to that effect. And I was one who testified. I will stand by my testimony then.

Representative MILLS. We haven't departed from your thinking then in that respect.

Mr. FERNBACH. I would like to make the observation that we have talked of grants in terms of their efficiency and the particular function which the Federal or the State or the local government can do best.

I think we have spent little time, if any at all, on the problem of raising revenue in adequate amounts and raising it equitably. I think this has a lot to do with natural resources allocation.

Representative MILLS. We looked into that, as you will recall, in the December hearing in 1955 in connection with the development of a Federal tax policy for the promotion of economic growth and stability. And you recall, Mr. Curtis, the observations we made in our report on that point.

But here we were looking on the other side.

Mr. FERNBACH. The ability to spend and to function is so closely related to the ability to obtain revenue through taxes—

Representative MILLS. Yes, that is true. But we did not want to duplicate what we had already done.

Mr. Curtis.

Mr. CURTIS. One comment I must make: In the discussion on OAA, I was surprised to see the figures which Mr. Mills quoted which are accurate figures that the amount of OAA had increased and not phased out. But the real reason for this—and I think this ought to be brought out—is that actually OAA has phased out in the area where we have moved in in social security, which is in the urban areas.

The reason for the increase is that we have just recently moved into the agricultural and rural areas with the OASI program. Of course, that phasing out will not occur for some time. I think really there is something to be said for the fact that OAA has phased out and will phase out in the rural areas as OASI begins to take hold in the rural areas. I think that is too important a factor to glide over.

The other comment I would make is I think there is general agreement on it. But I was a little disturbed at the way these questions were presented. Just because something is defense or just because the need is indigency, which I feel is another area of proper concern to Government, does not necessarily mean that to have the Federal Government in is the way to solve this thing.

I think there is pretty general agreement that we have got to look to see how we best get our results, and particularly in this thing of science, of obtaining scientists. I do not think we should jump to the conclusion that if you are going to get scientists, the Federal Government has to do it.

In fact, I submit that is probably the poorest way of getting them. And again I was disturbed at the ready acquiescence that the Federal Government should go further into health research.

Sure, cancer, heart diseases, and so on, are tremendously appealing things. But if you get in and analyze whether the Federal Government doing it through the National Health Institutes is the best way to cure cancer, or whether it is best to stimulate the programs that have been going on for years in our private hospitals, and so on, you will find that the latter is best.

I have heard this remark said: That with the tremendous increase in Federal funds in cancer research, for example, our private hospitals cannot even get the patients now necessary to continue the basic work they have done. I again try to point out that we are talking in essence, are we not, of personnel systems. I mean, after all, they are human beings doing it whether they are in the Government or in private enterprise. And the personnel system that we have to use in the Government is the civil-service system. It is a compromise system. I think we have to have a compromise system. But by putting that in, we create a rigidity in our personnel system. And I submit that, in many instances, you cannot get the results through a rigid personnel system that we have to have at the Federal level and probably to a degree in the State and local level on civil service.

You cannot get the results that you can in these other areas. Or at least, it is a question to discuss and argue rather than just assume that because there is a need and the Federal Government properly has an interest—such as in defense or indigency—that immediately we go to a Federal program. I just want to relieve myself of those views, having listened to some of the comments.

Now, there is one particular point, though, that I would like to throw out for the panel, somewhat along the line that Mr. Fernbach has said. And that is the financing element. I was very much interested in Dr. Hochwald's paper. And I am sorry he was unable to be here.

He breaks down the impact of Government expenditures into three categories—multiplier effects, substitution effects, and price effects.

And then on page 197—and this is the thing that I was particularly interested in—he is talking under "Price effects" about the following:

Only the Federal Government has the power to create new money.

He is talking about how you finance.

And the price effects of Government expenditures are greatly influenced, therefore, by the level of government which finances these expenditures.

In other words, what he says there is that State and local governments have to resort to other methods of financing than through creating money. And he points out that consideration as a fact that we should consider. He says the inflationary potential of Government expenditures is, therefore, much more limited at levels below the Central Government which combines the fiscal and monetary powers of sovereignty. And, in my judgment, that is a very basic point to bear in mind in our consideration of what governmental levels we move into these fields at. Because the temptation to finance through deficit financing—because it is the overall budget—at the Federal level is

great. And I think the economic damage created by inflation as a method of taxation is so great that this factor should bear a great deal of weight in all of our analysis. And I wondered if there could be some comment on that, if anyone feels like it.

Mr. BUCHANAN. I would like to second what you say. I think that is an extremely important point. I think you are quite right.

And that is another factor which indicates that perhaps there is greater danger of retarding economic growth over the long pull by expanded Federal spending than there is by State and local spending.

Mr. FERNBACH. Right now, of course, our thinking is focused upon the word "inflation." Back twenty-odd years ago, we were very happy to see the Federal Government exert its power to create a little inflation during the course of the depression.

Representative CURTIS. Was that real inflation?

Mr. FERNBACH. The price level then was ruinously low and incentives to free enterprise did not appear to exist. We were counting on the Federal Government's power—and there was no other power—to try to restore the economy by encouraging the growth of demand and an upward price movement.

It is rather interesting that in discussions of the present business recession or "breather," much hope is being expressed that the States and localities will see us through by a continued expansion of their expenditures.

So, we are cheering for the States and localities and urging them to spend more money in this period of downward readjustment. I think at this stage we can overemphasize inflation. It may not be the critical problem of the American economy at this moment.

Representative CURTIS. I would like to further develop this point a bit: That one of the things that occurs, it seems to me, when these programs that have behind them considerable public pressure and emotion reach the Federal level, there has been a tendency to earmark Federal taxes for those specific programs.

The danger that many States have now learned that exists in earmarking taxes is certainly not as dangerous as it is at the Federal level for earmarking taxes, when our primary responsibility, I submit, is defense. And yet—and I made these remarks, incidentally, in regard to the highway program—I said that even though I voted for the darned thing, I was very much concerned about the fact that here we, without blushing, earmarked taxes, Federal taxes, for a highway program.

We have already earmarked taxes for retirement of people in social security. To an extent we have earmarked taxes for unemployment insurance at the Federal level. And we have built in our budget through that device, as well as some others, a number of items that we have no control over at all, such as veterans programs, and so forth.

So many items, when we go down the budget, the Federal budget, to see where we might make inroads, we find are items frozen in there.

But I would carry Dr. Hochwald's point a little bit further by emphasizing this added factor: that at the Federal level in financing we get into these earmarked taxes which, incidentally, were declared unconstitutional when the AAA first went in. And yet, of course, the Constitution seems not to mean anything more in most of political discussions.

Mr. MAXWELL. This thought of Dr. Hochwald's is a new one to me. But, my off-the-cuff reaction is that we ought to hold pretty firmly to the proposition that it is the job of the Federal Government to control inflation. It is that Government's job.

Representative CURTIS. I hope so.

Mr. MAXWELL. It does not always do it. But anyway, it is its job. And I do not like to subscribe to the proposition that you should place a function at a level of government just because at that level of government you do not create an inflationary pressure.

It seems to me it is evading a very important proposition. It seems to me the job of the Federal Government is to control inflation.

Representative CURTIS. I think what he is saying is this: At the local and State government level you cannot pay for it through any other method than bonds or taxation. But at the Federal level, you can pay for it, in effect, by printing money.

Mr. MAXWELL. I hope the Federal Government will face its responsibility of controlling inflation and avoid this business of having deficit financing in a period of high employment.

Representative CURTIS. Yet many people will advocate deficit financing, and apparently they have. And then when I ask the question "How would you fund deficit financing?"—because I am not one who believes that we have to balance the budget, as I have expressed it, as the earth goes around the sun. But I certainly think if we indulge in deficit financing for a couple of years, or 3 years, we certainly should have a knowledge at the time of when we are going to pay for it. And if you do not, you are going to pay for it through inflation, which is a form of taxation.

That is the danger he is pointing out, that these are dangerous political pressures that are placed upon the legislators, whether in the local or State or Federal levels.

If you don't go forward in the budget for an appropriation for cancer, the picture is against your trying to solve the problem of cancer. I know the difficulties in these emotional areas.

Mr. MAXWELL. It is again a matter of degree. The State and local governments do create inflation by heavy public-works spending in a period of high employment. They cannot create money.

Even if they tax, and certainly if they borrow money, as they do, they create inflationary pressures, as they have in the last few years. Certainly they bear some responsibility for what happened in 1956, if not before, even though they cannot create money.

Representative CURTIS. I had one other point I wanted to call attention to.

Mr. Fernbach, on page 185, points out something that I thought was quite interesting, and I have never quite thought of it in that way. But it is a very important point. Even though the Federal Government has long extended an invitation to all of the States to enjoy a share of the revenues collected by its progressive income tax through the allowance of deductibility against the Federal tax wherever State income taxes are imposed, most States have failed to take full advantage of this revenue-sharing opportunity. And I certainly agree with you, Mr. Fernbach, that there has been an invitation.

The only point I would like to make is that that has been a very limited invitation upon analysis. Because, take the people who use the short form; they really get no benefit from that inasmuch as they

are limited to a 10 percent for taxes and charitable deductions, and so forth. And also the low level of the State tax rates give little advantage because it is not a deduction from the taxpayment; it is simply an expenditure to be deducted from gross income.

I think it is an important point you make. And possibly that invitation of the Federal Government for States to participate could be broadened. So that some of them might actually accept this invitation. But right now I think the invitation is not a very good one.

Mr. FERNBACH. I think you are quite correct that it has little application to people whose incomes are so small that they use the short form, and some who may even use the longer form.

Although most of my constituents cannot take advantage of deductibility, we continually urge a greater effort to obtain more revenue from progressive income and profit taxes rather than to increase the already substantial dependence upon sales and payroll taxes which are regressive.

But the opposition to the imposition or increased use of progressive corporate profit and individual income taxes at the State level is generally led by the very people who are potentially the greatest beneficiaries of deductibility.

Representative CURTIS. What would you say if we were to make the invitation a little broader at the Federal level?

Mr. FERNBACH. I think this might be a very, very excellent area in which to extend your thinking.

Representative CURTIS. Thank you.

Mr. MAXWELL. I have just a little point I would like to make.

You went down functions and you got to defense and everybody nodded, and I nodded, saying, of course that is a Federal function.

I just thought there is one expenditure of the Federal Government for defense which is not quite a Federal function. And that is expenditure for the National Guard and Reserve.

It was once a grant, and it becomes converted to something which I would not quite call a grant.

In terms of misallocation of resources, my own personal opinion is that probably you are not spending money as well as you should there for defense.

Representative MILLS. Any further observations by any member of the panel?

Are there any further questions?

Representative CURTIS. No.

Representative MILLS. We thank you for being with us this morning and the contribution you have made to our thinking.

We appreciate very much your being here.

The committee will reconvene at 2 o'clock in this room.

(Whereupon, at 12:15 p. m., the subcommittee recessed to reconvene at 2 p. m. of the same day.)

AFTERNOON SESSION

The hearing was resumed at 2 p. m., pursuant to the recess.

Chairman MILLS. The subcommittee will please come to order.

This afternoon's hearings are concerned with the question of economy and efficiency in the Federal Government spending programs. Although the papers in the compendium have pointed out the conceptual difficulties in approaching these questions, the now-clear prospect

for a more sharply rising level of Federal defense outlays coming at a time of high level uses of resources puts them in a more critical focus than at any time since the end of hostilities in Korea. We all recognize that maintaining adequate military preparations alone is not enough. We must also provide for an expanding capacity to produce while avoiding the excesses of inflation.

Since provision for economic growth must depend significantly on how effectively resources are used and since the Federal Government is the single largest resource user in the Nation, the question of efficiency and economy in the Federal Government are of paramount importance.

Each panelist will be given 5 minutes in which to summarize his paper. We will proceed in the order in which the papers appear in the compendium. And we will hear from each panelist without interruption. Upon completion of the opening statements, the subcommittee will question the panelist for the balance of the session.

I hope that this part of the session can be informal, that all members of the panel will participate, commenting on the papers filed by other members of the panel.

Our first panelist this afternoon is Professor Brownlee.

Professor Brownlee is professor of economics, University of Minnesota. We are pleased to have you with us, and you are recognized for 5 minutes.

Mr. BROWNLEE. Thank you.

STATEMENT OF PROF. O. H. BROWNLEE, DEPARTMENT OF ECONOMICS, UNIVERSITY OF MINNESOTA

Mr. BROWNLEE. Rather than reading the summary which I have already submitted, with your permission, I will try to summarize what I have stated in a slightly different fashion.

Representative MILLS. The entire statement will, however, be inserted in the record.

(The statement referred to follows:)

SOME DEVICES FOR INCREASING EFFICIENCY IN GOVERNMENT EXPENDITURE

O. H. Brownlee, professor of economics, University of Minnesota

To obtain the largest possible national income from whatever resources are available, it is necessary (1) that whatever goods and services are produced or distributed by Government be produced at minimum cost; and (2) that the quantities of goods and services produced or made available by Government be appropriate. In principle, it is possible to determine how to produce at minimum cost so that the first of these criteria can be fulfilled. However, unanimously acceptable tests for determining how much of some types of governmental services ought to be made available probably cannot be provided, and often, within rather wide limits, the amounts to be produced must be determined arbitrarily.

Recent international events probably will result in increased spending on some Government services and make it particularly important that we reexamine the ways in which certain expenditure decisions are made. To encourage producing at least cost whatever amounts of certain services are to be made available, we can rely upon more widespread application of the practice of Government specifying the task to be accomplished and letting private producers bid for the job. This procedure is followed in obtaining military equipment, carrying mail, etc., and could be extended to the provision of elementary and secondary school education, mail collection and delivery, fire protection, and even the collection of certain taxes. That it would reduce the costs of providing a given amount of services follows if one accepts the assumption that decisions are of higher quality

if rewards and quality of decisions are more closely correlated and that such correlation is higher in private than in public enterprise.

The services that benefit persons other than those who use them or are of a kind such that one person's consumption does not affect the total supply available are the ones whose appropriate quantities probably must be somewhat arbitrarily determined. However, Government has been providing many services that are not of this type and for which the information of the kind provided by a market can be used to determine how much should be produced. The recently revealed scientific advances of the Russians undoubtedly will generate much pressure to expand higher education in the United States with the Federal Government footing a large portion of the bill. Although it may be economical to expand facilities for higher education, it would be unwise to do so primarily at Government expense. With few exceptions, the benefits of a higher education accrue to the person receiving such education through the increased market value of his services. Rather than have Government expand educational facilities and provide such services at less than cost, it would be wise for the Government to make or guarantee loans made to private individuals who wish to attend college—perhaps to create a kind of FHA for college education. Such loans, combined with tuition fees commensurate with costs, actually would expand educational opportunities and would permit a more definitive answer to the question, "Is there a shortage of college facilities?"

Similarly, because highway benefits go largely to those using the highways, every effort should be made to devise procedures whereby highway costs are paid by highway users in accordance with the amount of use. If highways are useful for military purposes, charges should be levied against the military as they would be against any other user, and whatever contributions to highway development and maintenance are made from general taxation should be made indirectly from payments by the military services. Rather than converting turnpikes into freeways, revenues should be imputed to turnpikes as they would be to other sections of the highway system. Such a procedure would permit determination of whether a highway "pays" and give us a more definitive answer to how to expand the highway system.

The provision of highways and higher education provide illustrations of applications of the principle that for services whose benefits accrue primarily to their users, the appropriate amounts to provide are those such that what users are willing to pay are equal to marginal costs and that a market—real or simulated—is an effective means for finding what consumers are willing to pay for various amounts as well as what it costs to produce these amounts. Whenever feasible, attempts should be made to utilize market mechanisms to help in making such expenditure decisions.

Mr. BROWNLEE. Thank you.

What I am urging is that in making governmental expenditure decisions, the Government, wherever possible, make use of the price system or the market, or whatever one wishes to call it. Where a market for resources or services exists, it should be used. Where it does not exist, the Government should try to simulate or create a fictitious one for accounting purposes.

By this I simply mean that the Government should value the resources that it employs, its men, its capital goods, and so forth, at their values in other uses. And it should use information about what people are willing to pay for its services and the costs of providing them in deciding how to produce and how much to produce.

This information about what resources are worth to other users and what various amounts of services are worth to consumers is really the information that is provided by a market.

Governments already do what I suggested. It bids in the market against other resource users. It usually tries to minimize the cost of doing whatever it has decided to do.

Also there are important instances in which a market does not exist or cannot be simulated; or if it could, in which decisions based on market information would be erroneous.

However, there are other instances in which market information is not used as adequately as might be the case or in which a fictitious market might actually be established.

The examples that I have given in the paper are highways, higher education. One might also point to the handling of second-class mail by the postal system. And Mr. Harberger has given a fairly good example in the overall capital expenditures activities of the Government.

In higher education, we are not making best use of market information in that State governments, operating particularly State universities, are setting the prices for these services below costs. Yet because of the peculiar nature of the capital market, some people who are qualified and who would buy a college education, if they could obtain the funds, do not receive it. And at the same time some people who would not purchase a college education if they had to pay the full costs are receiving one.

The first defect can be remedied by Government lending funds to prospective college students who wish to borrow.

The second can be eliminated by pricing college instruction at cost.

In the case of highways, the motor fuels tax can be, and to a considerable extent is, used to price the services that are provided by highways to passenger automobile users. However, we need supplementary distance taxes to provide similar treatments to trucks.

In urban transport, street users are not confronted with pricers that are in any way or sense sufficiently enough to recover costs. The provisions of highways and higher education provide illustrations of the application of the principle that for services whose benefits accrue primarily to their users, the appropriate amounts to provide are those such that what users are willing to pay are equal to their real marginal costs, and that a market, a real or fictitious one, is an effective means for finding out what consumers are willing to pay, and what it costs to produce these amounts.

I repeat: wherever feasible we should try to make use of such market information.

Representative MILLS. Thank you.

Our next panelist is Prof. Arnold C. Harberger, department of economics, University of Chicago.

Professor Harberger, you are recognized for 5 minutes.

STATEMENT OF PROF. ARNOLD C. HARBERGER, DEPARTMENT OF ECONOMICS, UNIVERSITY OF CHICAGO

Mr. HARBERGER. I too am going to deviate from my prepared statement and try to summarize in another way the point that I am trying to make.

Representative MILLS. Your prepared statement will also be in the record, if you desire it to be.

(The statement referred to follows:)

THE INTEREST RATE IN COST-BENEFIT ANALYSIS

Arnold C. Harberger, University of Chicago

It would be hard to overstate the importance of the interest rate used in the discounting of benefits and costs to judge the worthwhileness of proposed long-term Federal investments. Suppose a project were expected to yield benefits of \$1 million a year beginning 5 years from the initiation of construction and

extending indefinitely into the future. Using an interest rate of 2½ percent, we would evaluate this stream of expected benefits at \$35.36 million as of the date of initiation of the project. But if we were to use a 6-percent rate, our evaluation would be no more than \$12.45 million. The choice of interest rate becomes more critical, the longer the duration of the project in question, and the longer the lag between the beginning of construction and the time when benefits begin to accrue. Clearly major mistakes can be made if the wrong interest rate is used in evaluation. If the cost of the above project were \$20 million, it would be a fine investment if 2½ percent were the right rate and a terrible mistake if 6 percent were the right rate. I propose to argue in this paper that a rate of 6 percent or better is the proper rate to use in evaluating Federal projects. This compares with a rate of 2½ percent most commonly used by the Government agencies which undertake cost-benefit analyses.

The justification most commonly given for the use of the 2½-percent rate is that that is the rate at which the Government can borrow. This, of course, is no longer true; perhaps a 3½-percent rate would accord better with the present state of the money market. Be that as it may, my argument for a rate of 6 percent or better does not depend critically on the state of the money market. It holds equally well for the easy-money days immediately following the Second World War and for the hard-money period through which we are now passing.

The essence of my argument is that there exist and have existed ever since the war widespread opportunities for investments yielding 6 and 8 percent and higher. So long as such opportunities are available, our society does itself a disservice by investing at yields of merely 2½ or 3½ percent. The opportunities I speak of are those at the margins of industrial and agricultural investment, and I suspect it is also true that investment in residential construction might yield close to 6 percent.

Let us consider a typical industrial investment. Let it be financed half out of equity (or retained earnings) and half out of borrowings. What must it yield in order that it be a successful investment in the market sense? Presumably, the total yield should be sufficient to pay the interest on the borrowings and provide a rate of return on the newly invested equity equal to the market rate of return on equity. Taking figures which are reasonably representative of the period since the war, let us assume the interest charge on borrowings to be 4 percent, and the earnings yield of equities to be 10 percent. This earnings yield is, of course, after taxes; the before-tax yield of equity capital has typically been in the order of 20 percent. Thus our typical successful investment yields 4 percent on half the invested funds and 20 percent on the other half, making the rate of return on the whole equal to 12 percent. It may be objected that the 10 percent figure for earnings yield, while representative of the whole postwar period, has been rendered obsolete by the great rise in stock prices that has occurred. For recent years a figure of 7 percent might be better for the after-tax yield of equities. This means 14 percent before tax and, together with a 4-percent borrowing rate applied to half the total capital, implies an overall yield on capital of 9 percent, rather than the 12-percent figure obtained earlier.

Another approach to estimating the rate of return on capital in the United States is to compare total income received on account of capital with the total value of the capital itself. Neither of these components is easy to estimate, but much work has been done in recent years to improve our knowledge of both.¹ In spite of the lack of absolute precision in the presently available estimates, one may feel quite confident that the stock of capital in the United States is somewhere between 3 and 4 times the national income, and that the income accruing to capital amounts to somewhere between one-third and one-quarter of the national income. Our estimate of the rate of return on capital in the overall economy lies, then, in the range between 6¼ percent (income of one-quarter divided by capital of 4) and 11.1 percent (income of one-third divided by capital of 3), and probably closer to the middle than to the extremes of the range.

In the case of agriculture we have a reasonable good measure of the return on capital in the ratio of the gross rent paid to the value of rented farms. For 12 Corn Belt States this rent/value ratio ranged from an average of 5½ percent in Ohio to an average of 8½ percent in Wisconsin. With most States

¹ Cf., Raymond Goldsmith, *A Study of Saving in the United States*. (Princeton: 1956). Moses Abramovitz, *Resource and Output Trends in the United States Since 1870*, *American Economic Review*, May 1956, pp. 5-23, and the sources cited therein.

averaging between 6 and 7 percent. The figures are for 1954-57, and apply to farms rented wholly for cash.²

It is clear that there do exist many alternative investments yielding 6 and more percent per year. One might ask, however, whether these differ substantially from typical Government projects in their degree of riskiness, so as to warrant a substantially different rate of return. I cannot help but feel that Federal projects are highly similar in their degree of riskiness to many private projects. Both power and irrigation facilities are provided by the private market side by side with Federal installations, as are, from time to time, river and harbor improvements, flood-control facilities, etc. These rank, to the best of my judgment, neither as especially safe nor especially risky investments. It therefore seems reasonable to expect that Federal investments in these activities should pay off at least at 6 percent, which, as we have seen, appears to be somewhat below the average return on investments in the private sector of the economy. The purpose of Federal investments is, I believe, to improve our level of living and that of our children; the measure of this improvement is provided in dollar terms through the estimation of benefits. There seems little or no justification for the Government's withdrawing resources from the private sector unless these will yield as much improvement in levels of living as ordinary private investments.

My recommending the use of a substantially higher interest rate in cost-benefit analysis does not imply any prejudgment that serious mistakes were made because a lower rate was used. If estimated benefits were 5 times costs using a 2½ percent rate, they would likely turn out to exceed costs, though by a smaller margin, when a 6 or 8 percent rate was used. It is the projects which are marginal in the first place that look bad when a higher rate is used. It is accordingly of interest to inquire whether projects actually undertaken could pass the test of a higher interest rate. A group of investigators at the University of Chicago have looked into this question, using the same benefit and cost estimate as were presented by the agency in question, but simply applying different interest rates for time discounting.

Out of 24 Bureau of Reclamation projects which were in fact undertaken, only 8 would have been judged acceptable at a 5-percent rate, only 2 at a 7½-percent, and only 1 at a 10-percent rate, if only primary benefits are taken into consideration. Counting secondary as well as primary benefits, 16 projects would pass the test at the 5-percent rate, 9 at the 7½-percent rate, and 4 at the 10-percent rate. Similar results emerged from a study of 29 Corps of Engineers projects. However, in the case of 27 Department of Agriculture watershed programs, practically all of the projects would stand up under a 5-percent rate, and two-thirds would be acceptable at a 10-percent rate, though one must add that the estimates of benefits, which are the raw material of benefit-cost analysis, appear to be subject to substantial possible error in these cases.³

Thus, it appears that the use of a higher rate would have precluded some, but by no means all of the projects actually undertaken. I strongly recommend and urge that future Federal investments receive scrutiny in terms of a rate of interest comparable to the return to capital in the private sector. This will lead to a better use of our resources, and in the bargain may provide some possibilities for budget limitation.

Mr. HARBERGER. Thank you very much.

The big problem in dealing with capital investments of the Government is deciding really at what rate they should be expected to pay off before they become acceptable. An investment which pays off at 10 percent per annum is clearly an acceptable investment by any standards.

An investment which pays off at only a half percent per annum would probably be agreed by everybody to be unacceptable. Somewhere in between these two limits there is some critical value of the rate of return on investment which decides whether an investment is worthwhile or not worthwhile to undertake.

² U. S. Department of Agriculture, *The Farm Cost Situation*, May 1957, p. 19, table 8.

³ University of Chicago Office of Agricultural Economics Research. Paper No. 5612, July 18, 1956, pp. 4-5.

In point of fact, the agencies of our Government have used a 3-percent interest rate, indeed at times 2½ percent rate, as this critical value.

I am here to argue that this rate is far too low. All of us have heard of the cases of industrial investments in which companies demand that an investment, so to speak, pay itself off within 5 years before they will undertake it.

Broadly speaking, this is a 20-percent rate of return.

Now, one could go at length into why this really is not quite a 20-percent rate of return. There are some fictitious elements of accounting and discounting of the future which companies do that make a 5-year payout something less than a 20-percent return. But surely it is at least a 10-percent return on capital investment.

I believe that in fact industrial investments in the United States pay off at least 10 percent, but I do not want to say that they pay off at 10 percent, simply because it is too hard to prove. What I want to argue is that industrial investments in this country and practically every other private investment in this country pays off at least 6 percent.

With this statement, it works the other way. I feel that it is absolutely impossible that anybody would prove the contrary. While it is difficult for me to prove that industrial investments on the average pay off at more than 10, it is practically impossible for anybody to even cite a single scrap of evidence showing that private investments pay off at less than 6 percent on the average. And I feel that a 6-percent rate is a rate which should be used in cost-benefit analysis of Government projects.

What does this mean?

A 6-percent rate is different from a 2½-percent rate in that a 6-percent rate says waiting is expensive. A project whose fruits are going to come 20 years in the future has much less value if we use a 6-percent rate than if we use a 2½- or 3-percent rate.

I think that waiting is not only expensive but ought to be expensive because our posterity in any event are going to live better than we.

If we ask our present generation to make sacrifices for the future generation, it ought to be for a real payoff. Our present generation ought not to be asked to sacrifice its own standard of living to pay taxes and so on in order that a future generation, which in any event is going to live far better than our present one, in order that a future generation should live still better.

The payoff has to be very big before such a sacrifice is warranted. I think a 6-percent rate of interest is something that ought to be put into, so to speak, into the books, as the standard by which projects should be judged. And I am sure that we will have a much more sensible allocation of our resources, a much more intelligent decision-making process in Government investments if we only make this one little check.

This is what I am here to argue for.

Representative MILLS. Thank you, Professor Harberger.

Our next panelist is Mr. Roland N. McKean of the RAND Corp. You are recognized for 5 minutes, Mr. McKean.

STATEMENT OF ROLAND N. McKEAN, THE RAND CORP.

Mr. McKEAN. I am simply going to review my prepared statement.

Despite a good deal of progress in analytical techniques, one aspect of seeking efficiency, that of devising appropriate criteria or tests of preferredness, is just about as troublesome as ever. In comparing alternative governmental courses of action, we have to use what I have sometimes called proximate criteria—that is, practical tests which are not obviously or necessarily consistent with higher level tests or ultimate goals.

Now, the fact that we have to use such criteria in dealing with down to earth decisions makes it easy to adopt erroneous ones. Also, comparisons of alternative operations always pertain to parts of the Government's problem—or to parts of a department's problem. Other parts of the larger problem are put aside for the moment, decisions about some of them being taken for granted, and decisions about others being neglected for the time being. Since problems of choosing the best policies have to be examined a piece at a time, a whole hierarchy or group of possible criteria comes into play, and the possible inconsistencies become abundant.

So much for the fact that one has to be extremely careful in devising criteria. Perhaps I should indicate that my remarks pertain chiefly to the use of quantitative analysis to help someone reach better decisions about these problems of choice. What of a constructive nature—and in general terms, here at least—can be said?

If output and costs can be measured in the same units—and the measure just about has to be dollars in order for that to be the case—then a suitable criterion form is maximum output minus costs. For example, in selecting, say, fire suppression equipment for the forest service, the test can be maximum value of output—timber and property saved—minus costs.

In order to estimate the value of output, of course, one cannot examine the fire trucks or the other equipment in isolation. If one did that, the only possible measure would be physical output. It is necessary, instead, to fit the fire trucks or other equipment being considered into a realistic context or fit it together with the other pieces of equipment and the personnel and the other items that are to be used. In that way, one can estimate the value of the assets saved annually with the alternative kinds of equipment.

To be sure, there are many supplementary considerations that just cannot be put into a practicable test of economic efficiency. One major consideration of this type is uncertainty. Which equipment, for example, is to be preferred if one type is more efficient on the average but another type gives a higher chance of preventing disaster or some very unfavorable outcome? Then, too, there are plenty of other supplementary considerations. I certainly need not stress them here.

Nonetheless, this kind of test of economic efficiency is a major consideration, one that, even if it is not a final test, is highly relevant to a final choice.

If outputs and costs cannot be measured in the same units—and this is the typical case in many Government programs—then it is impossible to maximize the value of output minus costs. Prices that are widely acceptable cannot be given to outputs of this sort. Each person may be able to attach a dollar value to it for himself, but that price is not necessarily valid for other individuals. So we cannot value the output in many of these cases. For such activities, the outputs have to be expressed in physical terms. And, of course, the use of the test mentioned a moment ago, output minus costs, becomes impossible. It is not very meaningful to talk about so many military units minus their cost.

The next best procedure, if one has to measure output in physical units, seems to be to fix the budget cost or the output at some reasonable scale. Then the test or criterion can be minimum cost of achieving a specified mission or a specified physical output, or to look at the other side of the coin, maximum physical output for the given budget.

If the achievement, the task, the mission, or the budget, is fixed uncritically in setting up this partial analysis, the test is not necessarily consistent with higher level criteria. In many problems of choice, the size of the budget or the scale of the mission is fixed by higher authority. If this is so, then whichever item is fixed can be taken as given. If it is not so, if whoever is preparing an analysis can vary the budget or the mission, then he has to try to select a mission or budget that seems to be sensible in the light of higher level goals. This calls for careful inquiry into what is to be accomplished at the higher levels and the relationship of criteria at the higher levels to the mission or budget under consideration.

This is not going very far to say this. Nonetheless, I think it is the right way to start tackling a particular analysis.

In brief, at all times in this matter of criterion selection, it is important that we draw on economic principles along with caution and commonsense instead of adopting the first plausible criterion that pops into our mind. And too often in making analyses we do adopt some plausible criterion without taking a critical look at it.

Representative MILLS. Thank you, Mr. McKean.

Our next panelist is Mr. Wilson Wright, economist, Procter & Gamble Co.

Mr. Wright, you are recognized for 5 minutes.

Mr. WRIGHT. Thank you.

STATEMENT OF WILSON WRIGHT, ECONOMIST, THE PROCTER & GAMBLE CO.

Mr. WRIGHT. Mr. Chairman, a review of the organization of the Federal Government and the operation of the Federal Government and the operation of the Federal Government in the past may be used to support the assumption that neither the Congress nor the executive branch of the Government actually is formally responsible for efficiency and economy in public expenditure.

Persons in both the executive and legislative branches of the Government unquestionably have been and are interested in seeing to it that Government expenditure is made efficiently and economically. This seems to be a consequence of the assumption of personal responsibility by legislators and administrators. It also may be noted that

the management of Federal expenditure does not appear to have been less efficient than performance of the comparable function by the popular governments of other countries in which responsibility seems to be formally assigned. This appears to be a tribute to the commonsense and statesmanship of American political leaders.

The means of measuring economy, waste, and efficiency in Government apparently are quite different from those which can be employed in the management of a business enterprise. Two different types of reference may be used to determine the economy and efficiency of expenditure.

The first of these is the kind of reference called a principle. Such principles, of course, are judgments or opinions derived from the observation of experience and developed by reasoning.

A second type of standard consists of a definition of a proposed expenditure, expressed in definite numbers. This may be called a budget.

Apparently the Congress can use only the kind of standard known as a principle in determining the economic and efficient types and volumes of expenditure, supplementing the use of principles by obtaining responsible assurance that the administration of expenditure budgeted is organized and performed with competence.

Two principles are offered for consideration. The importance of the first of these principles is that by observing it the Congress may avoid precipitating inflation and general economic disorganization leading to boom and depression, deflation, unemployment, and unnecessary social friction. The principle may be stated in the following terms. The difference between Federal expenditure and income should be adjusted to change in the demand for credit in the rest of the economy. Another way of stating the principle is that the change in Federal debt plus the change in other debt should be equal to the change in the market value of national output required by the increase in the population and technological improvement.

A second principle which may be used to evaluate the efficiency and economy of Government expenditure is the magnitude and incidence of tax rates required to finance an appropriate volume of Federal income. It is evident that, if expenditure is so large that the taxation required to finance the expenditure reduces the incentive to produce on the part of the population, the expenditure can be considered neither economic nor efficient.

Because expenditure for military purposes probably will be the largest single item in the Federal budget for many years to come, it is apparent that this item will continue to be the part of Government expenditure in which efficiency and economy will be most important.

Assuming that the strategic evaluation and planning of the military are adequate, rational, and properly integrated, the problem of efficiency and economy in military expenditure will consist largely of the problem of administering the military budget. In this connection recommendations have been made by the second Hoover Commission which supported the recommendations of the Committee on the Business Organization of the Defense Department.

Because the maintenance of a permanent large military organization is relatively new in the experience of the United States, it is reasonable to assume that there is much which is not understood about how to

manage the expenditure of such an organization. The development of such knowledge requires time, experience, and study.

For these reasons it probably will be both desirable and appropriate to establish task forces and working groups; from time to time, with functions similar to those of the Committee on the Business Organization of the Department of Defense. Groups commissioned for the performance of this task can be used by the Congress in the way that managers or directors of a corporation sometimes employ the professional services of firms specializing in operations research and management engineering.

A review of the standards which may be employed by the Congress to determine the economy and efficiency of government expenditure supports the assumption that these probably must be concerned with overall Federal expenditure supplemented by responsible assurance that funds budgeted and appropriated are being administered with competence.

Representative MILLS. Thank you, Mr. Wright.

(Mr. Buehler submitted the following summary statement for the record:)

ECONOMY AND EFFICIENCY IN GOVERNMENT EXPENDITURES

Alfred G. Buehler, professor of public finance, University of Pennsylvania

In this paper the question of economy and efficiency will be related to the overall problem of government expenditures.

SOME PRINCIPLES OF GOVERNMENT EXPENDITURES

1. Government expenditures should promote the most effective utilization of our human resources.

2. They should be consistent with the economic objective of an increasing national income flowing steadily and equitably to the population while advancing social and other community goals.

3. They should promote, or at least protect, the welfare of the majority even though they may be designed primarily to further the welfare of a particular class or group.

4. Careful judgment should be exercised by public officials and the citizens to insure that the advantages of expenditures on each public service exceed the costs and that the utilization of funds and resources by governments will be more conducive to social welfare than the private use of the same funds and resources would be.

5. In calculating the economic and social results of expenditures, the economic and social effects of the taxes and other receipts raised to finance them should also be weighed.

6. Public works and other expenditures should be placed at the most propitious time, so far as possible, for enhancing economic stability, increasing the community income, and lowering the costs of the services performed.

7. The services and expenditures of the various units of government—Federal, State, and local—should be coordinated as effectively as possible to obtain the maximum social benefits and to avoid an unwise and wasteful duplication of efforts.

8. Government administration should be efficient and honest. Only those expenditures duly authorized by law should be disbursed; all expenditures be accounted for completely; and public financing should be reported intelligently and interestingly to the executive officials, the legislature, and the citizens so that the social gains and costs of public expenditures can be compared in as rational a manner as possible.

THE PROBLEM OF CONTROL

Expenditures start with proposals for appropriations. Unless appropriations are controlled, expenditures cannot be controlled.

The techniques of expenditure control are, in general, well known to students of public finance in and out of government. The will to control is more apt to

be missing than the techniques, although improved techniques are continually being developed. The techniques frequently need refining and improvement, but those which are available are often overlooked.

Another weakness in efforts at expenditure control is the failure to appraise each appropriation and expenditure in relation to a total program, and to attain consistency throughout the total program of a government. Inconsistencies may exist in the spending program of a certain department and are frequently found among the various spending measures of a government. In addition, the expenditures of the various levels of government may be somewhat inconsistent with each other.

An important check on the success or failure of the spending program may be found in the attitudes of the taxpayers and those who must pay the bill.

Taxation interferes with the lives and economic pursuits of the people. Whatever may be the benefits of the expenditure of the tax proceeds to certain groups and society at large, to the person paying the bill or otherwise feeling the efforts of taxation, it is a cost.

Government is justified only when it provides essential public services which would otherwise not be available and when it supplies essential services at a lower cost than other sources could.

Representative MILLS. Let me commend each of the panelists for having presented some very stimulating suggestions with respect to the possibility for increasing efficiency in Government operations.

On the whole, I get the impression that once the decision about what general categories of functions and the levels of such functions are determined, many of you feel that through a variety of approaches, we can improve the efficiency of performance.

Mr. McKean, I believe, has given us a clear statement along these lines, along with the interesting suggestions made by the other members of the panel. But the first step, making the determination of how much of what is the more troublesome problem, certainly to us here in the Congress. The President's speech in Oklahoma, I think, has given it a clear focus.

In effect, he has told us that a higher level of defense spending will be proposed. And if it is, I think there is little doubt in anyone's mind but that it will be provided.

Now, the question is: Where do the interests of economy lie? In cutting back other Government spending programs? In cutting back private spending? Or in some combination of the two?

Clearly if we could point to some nondefense Federal spending program which made a relatively high contribution to economic growth, it would be uneconomical to reduce such program to finance higher defense outlays. Professor Harberger has suggested a rule for evaluating the economy of public works programs. Can any of you suggest how we can evolve some objective, generally applicable standards to apply to this problem?

Which of you would like to lead off?

Mr. BROWNLEE. What is the problem?

Representative MILLS. Adopting objective standards to determine which is more economical? To cut back this program or that program, or decide finally to cut back on private spending or cut back on the two, a combination of them.

How do we adopt standards to determine where the economy lies?

Mr. BROWNLEE. May I make just a general comment?

Assume that you had really programed Federal expenditure prior to the increase in defense spending which you think and most other people think will come about; then the increase in the productivity of defense spending, which has come about because of the sputnik, sug-

gests that an expansion in the overall Federal budget, but some cut-back in the other items of nondefense spending, is the proper way to do it.

Defense spending has increased in importance or productivity relative to everything else. Hence, some private spending ought to be cut back. But since defense spending has increased in productivity relative to other types of Government spending, also there ought to be a reduction in nondefense governmental expenditure as well.

Now, this does not give you in any sense a clue as to exactly what cuts ought to be made.

Representative MILLS. Before I pass on from you, let me emphasize and restate just a little bit.

What I am getting at is that while efficiency in Government may very well be measured by how cheaply in real terms some given function can be performed, it does not follow, does it, that economy in Government is necessarily well measured by how little the Government does?

Mr. BROWNLEE. No, decidedly not.

Representative MILLS. You are advocating that the Government does less?

Mr. BROWNLEE. No. I am advocating that the totality of what Government does should be more if what it was doing prior to the Sputnik was right.

Representative MILLS. But will be less in some areas?

Mr. BROWNLEE. Yes, but will be less in some areas.

Representative MILLS. Now, is that the standard by which we should make the determination? Or should we make it on the basis of where the economy is?

Mr. BROWNLEE. You mean where the general level of actuality is?

Representative MILLS. That is right. Whether we cut back so that the total Government use of resources remains the same, or whether we cut back the use of resources in the private sector somewhat.

Mr. BROWNLEE. I do not wish to monopolize the entire time, but I think the decision with respect to where you cut back in the governmental sector ought to be made independently of where the economy is at this particular time; because you can stimulate the overall level of performance in the economy not only by increasing Government expenditures, but also by cutting taxes as well. You are not really restricted to an expansion in Government expenditures as a means, for example, for reducing unemployment.

Representative MILLS. Now your observation is an overall characterization, really, of what should be done.

Mr. BROWNLEE. Oh, yes, without looking at the details, precisely.

Representative MILLS. Without looking at the specifics of it, yes.

Professor Harberger, will you comment on my series of questions?

Mr. HARBERGER. Yes; well, in general, I thoroughly agree with what Professor Brownlee has said; and I would like to second his series of comments before I start.

At the same time I think it should be pointed out that what Professor Brownlee said was that if the Government budget were, so to speak, programed—if it were programed in advance, then it would be proper to both increase taxes and cut other areas of Government expenditure as defense became important.

The difficulty is, I think, that we have such a problem in deciding what is the productivity of a piece of Government expenditure. We really do not know.

What is a new wing of B-52's worth in terms of dollars? Somehow it adds to our national security. But the translation of a wing of B-52's into dollars is a tremendous problem.

Representative MILLS. Professor Harberger, do not overlook the basic question that I asked. You gave us very clearly certain standards that we could use for evaluating economy with respect to public works programs.

Mr. HARBERGER. Yes, sir.

Representative MILLS. Now, can you suggest some objective standards that we can apply to these separate problems that come up in addition to public works?

In other words, do the right thing with the thought in mind of development of the greatest possible economy.

Mr. HARBERGER. This is where we, professional economists, have really very little to offer. Once somebody has appropriately estimated the benefits which will come from a project in the future, I can say what interest rate ought to be used to discount those benefits. But, I, as a professional economist, have no particular special competence in estimating what the benefits will be from a given piece of Government expenditure. I can guess at the benefit from an irrigation project better than a bit of defense expenditure, simply because I can tie the results of irrigation into terms of greater crop output and how much it is worth.

I can put a dollar value onto the results of an irrigation project expenditure much more easily than onto a defense expenditure.

Now, in education, for example, here we have a tremendous problem. I would say my own private reaction to Sputnik is not that we should drastically hurry up our defense expenditures, but that we should really get into the research business in a fashion in which the Russians appear to have done. The research business in Russia is a Government business. We spent a billion dollars, roughly, this year—our economy spent that—in retooling for automobiles. It is my private opinion that that billion dollars would have been better spent in somewhat more basic research.

I cannot honestly recommend that we stop automobile companies from retooling when they appear to be giving the public what it wants. But I feel that somehow a function fails to be performed when we fail to do the kind of basic research that I can see being done by the Russians in producing their Sputniks.

It is a problem of evaluating. This was a thing that I felt was important to say in relation to our defense expenditure and what we were going to do in response to the recent Russian challenge. But the real difficulty is always of evaluating. What I just said was a private opinion of my own.

Everybody is going to have private opinions about what is or is not a worthwhile Federal expenditure. And I cannot see how we, as professional economists, have more than just a little advantage over the other people in judging the worthwhileness of projects.

The putting of the dollar sign or the dollar value onto the benefits that will ensue from a given investment of resources is the tremendous overall difficulty.

Representative MILLS. Well, then, you are saying that as the Congress and the administration proceed with the determination of what programs to cut back, if the defense program is to rise, and overall expenditures are not to rise along with the defense, to the full extent at least of the rising defense, that there are no really objective standards by which we can evaluate economies and efficiencies in operation of Government as a means of determining which of these programs we should cut back and which of them we should not.

I think it is most important that if there be any standards by which we judge, that we use standards rather than the meat-ax approach. We are too often criticized in the Congress for not using anything except a meat-ax approach.

Mr. HARBERGER. Let me say there are places where we can tell, where an economist can say, that what the Government is doing is wrong.

Representative MILLS. All right. Let us get to specifics.

Mr. HARBERGER. My favorite specific on this, I would say, would be the soil bank. The soil bank is clearly a case of a wrong Government policy.

Representative MILLS. The House of Representatives, last session, came awfully close to agreeing with you.

Mr. HARBERGER. That is probably right. But the issue there is obvious simply because we have a national resource which we are paying people not to use. That is land. Now, it just goes against all principles of economy to pay people not to use a productive resource.

Representative MILLS. Now, we have this practical problem as we face this situation next year. Almost every group in the country thinks its taxes are too high, and would, therefore, regard it as economical if its taxes and some kind of Government spending were reduced. But as every Member of the Congress, I think, knows, when any taxpayer says economy in Government is less government, he really means less of the Government's service on which he places a lower value than he places on the expanding spending he could undertake if his taxes were cut.

In evaluating this situation, it would be well if we could have some standards to judge the economies and efficiencies of various programs before we began to cut back on certain programs without regard to what may happen.

I think we will have to cut back. I do not think there is any question about that. That seems to be the desire of Congress, that if the defense spending goes up, that we cut back as much as we can to compensate for it to avoid a deficit situation and to avoid a rise in taxes.

How do we go about it?

Mr. Wright?

Mr. WRIGHT. Chairman Mills, when one is dealing with the monetary and credit system, one is dealing with numbers. So you do have some objective standards to apply against total Federal expenditure, and one can calculate what the effect probably will be.

But when you are dealing with the components of a total budget, you are dealing with qualitative differences, not quantitative differences, although they are finally expressed in quantitative differences. Is not your problem one of telling what are the qualitative differences of these different types of expenditures?

And I suggest that economics provide no solution there.

Representative MILLS. Well, is it a factor that should be considered?

Mr. WRIGHT. I think it is considered when the electorate is at the polls. There are qualitative differences which they make up their minds about. And I suggest that the Congressman in considering different proposals for expenditure is faced with precisely the same problem. Yet I do not think it is a matter for economics.

Representative MILLS. I think you misunderstand my point.

In determining where we cut back, and the extent to which we cut back, should the question of economics, economic growth and stability, be a factor leading to a final conclusion? Or should we cut back the program that contributes the most economic growth and not cut back at all the program that does not make any contribution to economic growth. How can we judge which one of these programs makes contributions to economic growth and stability?

Mr. McKean?

Mr. MCKEAN. I think most of us would agree that if we could make the appropriate measurements we would like to cut back on those programs which do not contribute as much as the others to economic growth or to the value of our total output. But as Mr. Harberger pointed out, in many programs—I believe he went a little further than I would go, for he said practically all programs—we cannot do much more than guess at the benefits (in terms of dollars anyway) that we would attach to those programs.

I would not agree entirely. In fact, the proposal that he initially made—that is, discounting streams of benefits from certain natural resource programs at 6 percent—points to one set of programs which we might agree should be cut back in order to make room for expenditures which now seem to be highly productive.

I would like to mention, or restate, an implication of Professor Brownlee's statement. What he said meant that there is a presumption that some—not all, but some—of the increased expenditures on defense should come from cutting back on private expenditures—consumption and/or investment. It seems to me, therefore, that Mr. Brownlee did point out something in answer to your question—namely, the presumption that some of these extra defense expenditures should come from the private sector, through, say, increased taxes. Or if we cannot do it that way, I suppose through inflation.

Also, to repeat, I think Mr. Harberger pointed to a sector which might be a candidate for cutting back, because if you apply this 6-percent discount rate, I am quite sure some of the programs where we can measure benefits fairly well will not meet that standard.

Representative MILLS. It is, in your opinion, then, Mr. McKean, possible for us to measure some programs in that way?

Mr. MCKEAN. Some. Though I certainly would agree that by and large, Government programs produce outputs to which we cannot attach a dollar value that is valid for people in general.

Representative MILLS. Well, of course, it is a lot different from the operation of a business, I realize, in that if you have your full capacity utilized and something comes along of such moment that you have to take it on, why, you can very readily determine the line of activity that you will drop or cut back, in order to take on this particular, perhaps more profitable, business.

I know that is very easily determined, perhaps, in business. But it is not so easy to determine here. The reason I raise these questions,

and I repeat, is that we are criticized so often for using the meat ax approach to economies, that you would think sometimes those who criticize us would prefer that we have no reductions if the reductions can only be made in that kind of approach.

I know the Congress is always seeking to find a more scientific way of operating in determining economies and efficiencies.

I have always had in mind that a great deal of study might develop some better standards for our operation. I do not know. But I have just always believed that more study would develop some standards.

And I think you have all been very helpful in pointing out the beginning, at least, of such a study of what we might find in the end. All your suggestions have been most helpful to me.

Mr. Curtis.

Representative CURTIS. I am going to make a statement. I think the more I listen to our panels—and our panels up to date have been on these general propositions—that maybe the committee made a mistake in not starting out with our specifics first and then going to the generals. Our later panels are going to deal with specific programs—defense, foreign aid, and so on. And possibly if we had started from there and then referred back to those to draw these general conclusions, it would have helped; I find myself constantly going to the specifics in order to get an illustration of what we are talking about in these general statements.

But there are a couple of things I would like to discuss, and I will refer to specifics in order to try to bring out the points that you have made in your general statements.

Before doing that, though, I would like to ask Professor Harberger a couple of questions on his most interesting paper.

I was just wondering whether or not, if we engage on some of these projects that are uneconomic from your suggestion, if they do not bring a 6-percent return, is it not possible that actually we pay out at the rate of the 6 percent even though—I mean that costs us that—even though we cannot readily perceive it.

I am thinking, for example, of the VA program, which sets the interest rate, as it did, at 4 percent for veterans' homes. And yet other devices developed in the economy to compensate for the lower return—I wonder if in other areas it is not easy to figure some sort of compensatory payment.

Mr. HARBERGER. I think this is true in the private market, that it is very hard, as the VA example shows. The sources of credit just dried up at 4 percent. No capital would go into that thing. You have provided here, probably the outstanding example that I should have put into my paper of the case for a higher rate than 4 percent.

Representative CURTIS. The interesting thing to me is that before it dried up there was this compensation and these points, and so forth.

Mr. HARBERGER. It became what looked like 4 percent. What it said on paper was 4 percent was, in reality, $4\frac{1}{2}$, or 5, or more.

Representative CURTIS. I was wondering in that relatively simple thing whether even though we set up some rate returns on projects where we use Government financing, whether that, if we were able to follow through all of the economics of the project and how it is paid for, whether we actually do get by with the $2\frac{1}{2}$ percent rate of Government bonds, or whether or not we pay for it somewhere else in the economy?

I want to illustrate another case that has always intrigued me.

Back when I was practicing law, I was chairman of what was called the loan shark committee in the community.

We found that with a 2½-percent interest rate, what we referred to as the "legitimate small-loan companies" would not enter in the business.

A black market developed and the rate was around 240 percent. By raising the legal rate to a more realistic figure, we got the people back—or we got what we would refer to, as the "legitimate operators" back into the business; which actually cost the borrowing public less.

Now, I am just wondering if some of these projects that we have put on our books at a so-called benefit rate of less than 6 percent—whether we actually have not paid for them even though we think we have.

Mr. HARBERGER. Suppose you have a project which is essentially a really bad investment where we are using resources—say we are spending a hundred million dollars to do something, and that it yields a stream of benefits of 2 percent.

We really pay the 6 percent because in spending that hundred million dollars doing that, we fail to take advantage of other opportunities which I allege exist in profusion, which will pay off at 6 percent.

Representative CURRIS. Mr. McKean, did you have a comment on that?

Mr. MCKEAN. I would like to add one point. As I believe Mr. Harberger mentioned, some people say we ought to discount at a low rate in order to provide more for posterity, because this procedure does favor investments which yield benefits in the distant future. I would like to say I do not think this argument is valid because if you really want to provide more for posterity, you want to invest at all points in time in the most profitable investments.

The situation is just like that of an individual investing his money. If I want to provide more for my children, should I choose my investments by discounting at an artificially low rate? There is only one circumstance in which I might want to do that. That is, if I thought I wouldn't have the courage in the future to take the proceeds and reinvest them. If I really wanted to prevent myself from facing that choice, then maybe I would want to get some 2-percent investment that yielded its return in the distant future. But if I thought I could take the proceeds and decide what to do with them as they accrued, then I could provide more for my children by constantly selecting the investments that paid the most and gave the highest rate of return.

Representative CURRIS. The reason I wanted to pin this point down a little bit if I could is that so often—and particularly when we discuss the Federal Government performing a function as opposed to the same function being performed in the private economy—the argument is used on the basis of theoretical accounting statistics that it costs less for the Government to do it.

And one of its ultimate costs is the low cost of capital. And it seemed to me that the points that Professor Harberger brings out have a direct bearing on that. That gets back to one criterion that we all recognize, of course, in determining whether the Government should be doing something or if it should be done in the private sector of our economy, just on the pure basis of what is the traditional cost.

I would like to go on to another point that is mentioned by Professor Brownlee in his statement where he is saying that—

Recently revealed scientific advances of the Russians undoubtedly will generate much pressure to expand higher education in the United States with the Federal Government footing a large portion of the bill.

I regret to say that I agree with the statement as far as the pressures are concerned. I certainly would hope, though, that through these panel discussions, particularly as we get into the details, that we will get into the details of some criteria of whether or not the way to get more scientific advancement is through the Federal Government getting into this thing more, or whether other techniques are better.

For example, this one thing that I think our higher institutions of learning are beginning to wake up to through the economic pressures is that they have got a plant that is used only 9 months out of the year, and why haven't we been using it for the other 3 months?

It goes back to the fact that we were a rural economy originally, and we needed the manpower of the student body on the farm for those 3 summer months. But certainly in modern times there is no reason why we cannot use our educational plants 12 months out of the year. And also there are factors like the impact of television as a media for education and the costs involved there, where it looks like we are going to be able to get a lot more education per dollar.

Those are the things, and many, many other things, that I would like to see examined first before we jump to what I would call almost—well, it is childish even—this concept that just by voting more dollars you are going to get more results.

And so the implications that Mr. Mills has suggested—and, politically, I am afraid it is almost a foregone conclusion—well, President Eisenhower said that we are going to have more defense spending. He said in that same speech—and I regretted the way he minimized it—or he referred to the alleged military duplication.

Well, as far as I am concerned, that allegation has to be gone into very thoroughly, because I don't think it is an allegation. I think it is a pretty well-proven fact. And to go into that allegation first to see whether or not we are utilizing the dollars that are presently being voted to get the results, because if we are running four guided-missiles programs—civilian, Army, Navy, and Air Force—we probably can save money by some consolidation and actually end up with better results.

That is why I hate to jump over these specifics. Because, sure, if we are faced with it, if there is no other way of meeting the defense need we will vote more money.

Then, of course, we go to that. But these criteria that lie in between are what the Congress in, my judgment, needs badly. And I think the economists can provide us some of these criteria. The Hoover Commission has brought out many instances in the defense picture where we are not economizing either manpower or materials. Those can be, and mostly are, economic problems, not entirely personnel problems.

It is in those areas that I would like to see some development, if there is some standard that can be applied there.

I have made a statement rather than asked a question. But I would like any comments that there might be on that.

Mr. Wright.

Mr. WRIGHT. I have talked with members on the Committee on the Business Organization of the Department of Defense in recent months in attempting to prepare this paper, and they all agreed that they could do a great deal more if they had the time and money.

Representative CURTIS. That if they had what?

Mr. WRIGHT. The time and the money.

Representative CURTIS. In other words, they are maintaining that it is money?

Mr. WRIGHT. Well, it is money for that activity and the time for that activity.

As I understand it, according to their statements, their investigations were terminated.

Representative CURTIS. Well, I wonder if we could boil that down just a little bit to what area?

Could it be in guided missiles?

In other words, would they maintain that there isn't a duplication in the guided-missile program—for example, the Army, the Navy, and the Air Force, and the civilian project?

I mean I am trying to find out. That is a swell generality, a fine conclusion. But what I would like to know is how they come to that conclusion. The fact that they are businessmen?

Mr. WRIGHT. They have studied the subject of administration of expenditure. They have seen what there is to look at. And that was their conclusion. And that is all they said to me.

Representative CURTIS. I appreciate knowing their conclusion. It is hard for me to evaluate it without knowing on what basis they made it.

In contrast to that bare conclusion are the detailed reports of the Hoover Commission, the second Hoover Commission, in these many areas. And I might say also of the subcommittee I served in the 82d Congress, the Subcommittee Investigating Military Procurement and Supply.

Those were, I felt, pretty well documented studies of just exactly what I am suggesting; that it is not a question of allegation of duplication; it is pretty well proven.

Mr. WRIGHT. I believe the comments made to me were to the effect that, if more time were spent on this kind of investigation, there would be more detailed statements as to how more efficiency could be brought into administration.

Representative CURTIS. Oh, I see. I understand what you mean now. I misconstrued completely what you were saying. I thought you were saying that the military, in order to accomplish certain things, had to have more money.

What you mean is if more money were spent on investigating the military setup.

Yes; you and I are in complete agreement. I thought we were in disagreement.

I think that is all I have right now.

Well, just one further thing.

On this military thing, I had made a couple of notes of the alleged military duplication which occurs in not just the ordinary sense of the possible duplication of the four services—because the Department

of Defense is a service itself—but, also, a possible duplication with the private economy.

Many of these areas that the military have gone into are complete duplications in the private economy. One thing we used in the Bonner subcommittee to illustrate a point was coffee roasting and the processing of coffee and distribution of it, which is, again, I say, just an illustration. But another area of duplication is with the State and local, as I have pointed out to other panels, in the field of vocational education, where just a physical comparison of a high-school vocational educational classroom with that of an Air Force, Army, or Navy vocational classroom would show them to be identical, and there is actual competition on the military's part for the teachers in vocational education.

There is an example of a further possible duplication. But it is in those areas that, possibly, we could gain something. I think the same thing is true in almost any area of governmental enterprise.

I have often pointed out in social security that we have got an overlapping in social-security programs with our private life-insurance companies.

Now, where should that balance be, if any? And are there any economic standards that might be applied in that area?

That is one of the things I have tried to look for.

One of the Assistant Secretaries of the Army stated back in 1952—and he was a civilian, of course—that the Army's accounting system was 50 years behind that of business. Since those days, I am sure it has improved considerable. But, even in that area of a traditional testing of economics, a measure of manpower and material—that is, the economic measuring sticks—there was not a setup that we could use to any benefit. Well, that is all I have to say. If there are comments, I would appreciate them.

Mr. McKEAN. I would like to make one comment. I think most of us would agree about the out-and-out duplication being uneconomic. But I would like to say a word in defense of some activities that sometimes appear to be, yet are not genuinely, duplications. These activities occur, for instance, in the development of items about which there is a great deal of uncertainty.

If two firms undertake the development of some gadget or some end item, this may appear, on the surface, to be duplication. But it gives you a better chance of getting a successful gadget if the firms are actually trying different approaches.

Representative CURTIS. One of the tests of that would be whether there was interchange of information, wouldn't you say?

Mr. McKEAN. Yes.

Representative CURTIS. That might be something we could find out in testing the Military Establishment on some of these areas.

Mr. McKEAN. I think the old analogy that has cropped up in many places—and, I think, even in earlier hearings—is that you have a better chance of getting a derby winner if you try to breed several horses. This may seem like duplication, but it isn't, since they are really different animals.

Representative CURTIS. That is exactly the kind of economic standards that should be geared into this thing, because I happen to agree with that thought, too, that there are a lot of factors that have to be weighed in this thing. But I do not think the Congress has got to-

gether these factors that ought to be used in weighing these various programs.

That is where I think the economists could be very helpful to us. Even though, as Mr. Wright has said, the ultimate decision on some of these things is going to be at the ballot box, where it should be.

But only after some pretty intelligent public discussions and really public debate will this occur. If the two political parties would show the courage to choose up sides on these things it would help.

Representative MILLS. Mr. Ture, of the staff, has some questions. And, since it is only 3:15, we will turn you over to him now.

Mr. TURE. I wonder whether the somewhat negative tone of the replies to Chairman Mills' question concerning standards may have stemmed from you gentlemen having used a more rigorous framework than was really necessary for this kind of problem.

For example, Mr. McKean has suggested that there are lots of areas in which, because of the nature of the Government function, one cannot make very rigorous decisions. All you do is set up some proximate criteria. And these are the best you can use, because they are the only ones that are practicable.

Taking a hypothetical figure, suppose the proposed increase in defense outlays is in the neighborhood of \$3 billion. As Professor Brownlee suggests, there is some general feeling that some portion of this ought to come out of the private sector, higher taxes, without specifying the amount. But, nevertheless, this leaves some amount to come out of other Government programs.

Now, without trying to establish a rigorous framework in which you establish the marginal benefits of the last dollar of current spending programs across the line, can't you really approach the problem by saying, "Here are some Government functions about which we cannot make any kind of precise statements"? They are of the pure public good or service character, for which we have no techniques to quantify benefits. But, in addition, there are those where you have a tangible capital asset that the Government wants to put into place from which there is a quantifiable benefit. For that kind of a program, you can use the kind of standards that you suggested. There are others where you might suggest there is some obvious relationship between the Government's doing this or not doing this and the rate of capital formation, either in the private sectors of the economy or in the State and local sectors of the economy. You might then approach the problem posed to you by the chairman as a question of continually testing approximations, each of which takes you a little bit closer, though no one of them may be the ultimate, really precise answer.

Can we use such standards as the ones that have been suggested today or this afternoon, knowing that no one of these will be adequate for an overall appraisal of the budget but may be adequate for examining some part of it?

Mr. BROWNLEE. May I speak about two things?

One, with respect to the increase in the importance of missiles, this, obviously, means the importance of battleships is less than it was before, relative to certain other things, and, hence, a portion of the increase in expenditure on missiles, obviously, ought to come out of the rest of the military budget as well as the rest of the civilian budget.

I can make this statement and at the same time agree with all the things that have been said here; that you really cannot measure the benefits of an overall military program.

The second thing I would like to talk about for a minute is education, and to elaborate on some of the things that were mentioned by Mr. Curtis, and also by Mr. Harberger.

I agree that my reaction to Sputnik leads me to the conclusion that we ought to think a lot more seriously about education and research than we did before. Also, it means there is going to be this pressure on the Federal Government to get into the act. Using Mr. Harberger's criterion of a 6-percent yield on investment, and considering investment in education as just another capital investment, my estimate of the returns on this particular kind of capital investment is that they are very high.

For example, in a 4-year college education, they are probably in the neighborhood of 50 percent. And also for a person who is qualified to get a Ph. D., a doctor's degree, the other 3 years would probably be in the neighborhood of 50 percent. But the Government getting into the act in no sense implies that the Government has to give people free education. There are lots of different ways by which the Government can get into the act and can expand the amount of education that is actually achieved, can push forward the kind of research programs that we want, and can really make it possible for individuals themselves to gain a portion of this 50-percent yield.

Now, if we really expanded as we ought to, then the yield on this capital is no longer going to be 50 percent. It should be pushed down to 6 percent.

Representative CURTIS. I was interested in your paper, too, where you stated—and I have often thought if we are going to permit people to pay for vacations, as you now can, on the installment plan, I have often wondered why we haven't gotten to a real program of installment payment for education.

Mr. BROWNLEE. This has been suggested by certain private schools.

Representative CURTIS. Most colleges have loan funds, aside from scholarships.

Mr. BROWNLEE. Yes. But these go begging; and they are piddling. They are a hundred dollars for 3 months.

Representative CURTIS. No question about that. One possible suggestion is: Instead of the Federal Government actually going in in a direct way, one possible suggestion would be to stimulate the use and the development of installment payment for education.

Mr. BROWNLEE. Yes. A suggestion that has been made by Professor Freidman, of the University of Chicago, is that anyone who wants to take advantage of these funds can do so, and he will have added to his tax bill 10 percent of all taxes—10 percent of his tax bill in excess of a certain figure, say \$4,000 or \$5,000. The figures 10 percent and \$4,000 or \$5,000 are purely illustrative.

Representative CURTIS. And pays in taxes later; is that right?

Mr. BROWNLEE. Yes. He is really paying back in kind of a lottery sense for the winnings that he may achieve as a result of making an investment, or the Government making an investment of a particular kind, in his education.

Representative CURTIS. I might state here that I have been very disappointed in the fact that the life-insurance companies have not moved into this area of post- and pre-payment more than they have. It seems to me they could have done a great deal more than has been done, although those are more prepayment than postpayment plans.

Mr. BROWNLEE. It is hard for a person 18 years old to have accumulated the \$8,000 that is necessary to take him through college.

Representative CURTIS. That is why it has to be post. But there is a combination of pre along with it.

Mr. BROWNLEE. I think there the difficulties are largely legal. I am not familiar with them, but I think it may be difficult to force a person to pay back a loan at this particular time.

Representative CURTIS. I would like to make this final comment. What I would like to see done in this area is: Instead of jumping to the Federal Government, I would like to see exactly the kind of thing that we are talking about, more public discussion on it, and find out just what techniques can be used.

But unless that is done, I will tell you right now that the pressures on the Congress and the Federal Government to do it—boom!—any particular way are going to be such that we may end up with a very poor program. And that is what has happened in the past. And then 2 or 3 years later people wake up to the fact that it is a poor program when it need not have been if there had been some thinking about it ahead of time instead of just moving emotionally.

Right now it is all emotionalism behind the problem of defense—the idea of spending more dollars and immediately we will match Sputnik, or spend more dollars, and we are going to get more scientists instead of just trying to figure out how to spend the dollars.

Mr. BROWNLEE. I agree heartily with you.

Representative CURTIS. Thank you.

Representative MILLS. Back to Mr. Ture's question there, if anyone has any comment on that.

Mr. McKEAN. I would like to say 1 or 2 words on that. I certainly cannot offer anything that would be helpful in the next session of Congress or in the immediate future. But, just for the record, I would like to say I am a little more optimistic than others may be about the possibilities that Mr. Ture mentioned.

I think there are some additional sectors besides resource development and education where you can take a decent stab at evaluating the results of a program in terms of dollars; some of the health and medical expenditure programs, for example. Other illustrations mentioned earlier included agricultural policy, which may fall under natural-resource programs in a sense, too. Anyway, I think there are several sectors where you can attach dollar values to the results. To be sure, those dollar amounts won't embrace all of the things or considerations that voters, citizens, Congressmen, and all of us should have in mind. But I think those dollar values will be relevant and important to a decision.

Let us turn next to the many sectors where we have no hope of attaching a dollar value to the output. I think, nonetheless, it is possible to do something helpful, something comparable to Consumers'

Research in the private economy. In Consumers' Research not too often do they come up with a definitive criterion telling us that electric fan A is better than electric fan B; they come up with measurements of the characteristics of those commodities, putting the consumer in a better position to make a good decision than he would otherwise be in.

Similarly, in other sectors of the Government, I think we can trace out the costs and effects—I will not call them dollar benefits, but I will call them effects—in such a way that one can reach a better decision about the levels of programs. One example of such measurements—they are already used in practice to some extent, but I think can be used to a greater extent—is the following: Mr. Harberger mentioned B-52 wings. If we describe a program as resulting in so many B-52 wings, that does not put you in a position to say much about its worth to you. But if the number of wings is translated into capability in more meaningful terms, it can help you conclude, "This is very important to me" or "This is not very important to me."

Suppose I consider other devices to improve the defense posture. If one just describes the items to be purchased, it does not help me much to make up my mind whether or not I think that thing is worth while—whether or not I am willing to have my taxes increased to pay for it. But if one traces out the effects into more meaningful measures of our capability to attack, or to defend ourselves, then I am at least in a better position to say "That does not provide anything very important," or, as the case may be, to say "That program would really provide an important improvement in our capability." This is not a definitive criterion that tells anybody just what should be done. But, as in Consumers' Research, this kind of analysis for various kinds of Government activities can put one in a better position to decide about program levels.

Mr. HARBERGER. I would like to make a comment in answer to Mr. Ture's set of remarks, and, indeed, to the whole session that we have had this afternoon.

I am becoming more and more convinced, as I listen to the discussion around this table, that we really, as a society, as a Government, are underinvesting in the Budget Bureau. The Budget Bureau is really that place in which is centralized, so to speak, the control, watching to see that we do not waste money.

We spend \$70 billion a year. Now, it seems to me it would be utterly intelligent for us, if we spend \$70 billion a year in toto, to spend about \$1 billion a year in controlling and making sure that we are not wasting.

When you think that if you invest your money in an investment trust, it will earn maybe 5 percent, and you pay a commission of something like one-half of 1 percent to the investment trust for the investing.

So you are paying, roughly, 10 percent of what you earn. Ten percent of your earnings are being spent for the control to make sure that it is a good thing, and that your portfolio is well selected, et cetera. And \$1 billion out of \$70 billion is only slightly more than 1 percent spent for control.

I would say we ought to have about 5 budget bureaus; 5 because they ought to be arguing with each other, and the issues ought to be out in the open. There ought to be battles.

Representative MILLS. You mean we ought to have five budget bureaus checking?

Mr. HARBERGER. Checking, that is right.

Representative MILLS. Seeing that economy and efficiency exists rather than a hundred bureaus figuring out how to spend more money?

Mr. HARBERGER. That is right.

We ought to be spending a much larger fraction than we now spend to have people with eagle eyes ferreting out places in the Federal Government where money is being wasted, where a function can be performed better.

It takes money to do that.

That is why all of us sort of talk generalities here. We don't get inside the Defense Department. We cannot say that this airplane is not performing the function it is supposed to, or that the whole business of a particular kind of fighter could be done better by another kind of fighter which is cheaper. It takes a lot of expert knowledge. People have to get in there. And there have to be enough people in there looking at the facts and understanding the facts so that you can have differences of opinion.

And once these differences of opinion emerge, it is usually true that, in public discussion, a real waste will show itself.

And I would say that an investment of roughly 10 times what we now spend in this checking operation would be very worth while.

Representative MILLS. You think that we might be able to approach somewhat the degree of determinateness that that is possible within business with respect to whether there is economy of operation and efficiency of operation?

Mr. HARBERGER. I would think so.

Representative MILLS. I have often wondered if we would ever approach in any degree the ability of business to make those determinations with respect to individual businesses.

I would like to do it. But I just do not know that we could ever do it.

Mr. McKEAN. I doubt if we can go that far, though I agree with much of what Mr. Harberger said. But in Government we do not have the objective criterion of profits that businesses can use; and there are many other factors. One was mentioned this morning by Mr. Curtis, I believe. You have to adopt a compromise personnel policy in government; namely, civil service. As a consequence, you eliminate some flexibility that business has in dealing with personnel.

Representative MILLS. Most of our spending decisions are finally made with regard to their political implications, I guess. And business policies are certainly not made with regard to political implications.

Mr. McKEAN. I think we could go further than we have gone thus far to increase efficiency in Government operations.

Mr. WRIGER. I have done work with the Bureau of the Budget over a good many years. I was once in the President's office. And I have a very, very high regard for the work done by the Bureau of the Budget. I think it is excellent. But in business you pay a man a high price for spending less than is in the budget. The more he can reduce expenditure relative to his budget, the more you pay him, because he is a good administrator.

I do not see how you can develop that kind of immediate incentive and reward in government. The reward in government is a feeling of self-respect for a job well done, of craftsmanship. These are different from the incentives provided the businessman.

Representative MILLS. You do not agree in that respect with what Professor Brownlee said in his paper?

Mr. WRIGHT. I think I do partially. But I think there is a difference in emphasis.

Then, by the way, the Bureau of the Budget does not have the authority that the businessman does either.

Representative MILLS. I was thinking of that as we were discussing the Bureau of the Budget.

Representative CURTIS. One thing that of course the various departments have within themselves is theoretically—little bureaus of the budget—the trouble there is, as Mr. Mills has already intimated, that the overall objective might be to try to figure out how to spend more money rather than cut back.

Representative MILLS. Figure out the best arguments to defend the amount they are requesting.

Representative CURTIS. Of course Mr. Wright's reference back to the civil servant comes down to one of the things that is in our civil-service system, particularly its promotion system that comes in for a lot of common criticism. And I think there is some fundamental basis for it.

That is that the way you get promoted is to have more people under you. And that, of course, brings about Parkinson's law.

I wonder if you would comment on that, Mr. Wright, in light of your experience with this?

Mr. WRIGHT. Well, I have observed it in business. I cannot say that I have observed it in Government because I have not been in a place where I might observe it. But I have observed it in business. And I think it is a phenomenon found in all large organizations.

Representative MILLS. Let me inquire just a second.

As I gather, Mr. McKeon, you and Mr. Harberger both are making the suggestion that the budget submitted to the Congress each year should contain more information. At least in part that is what you are suggesting? And I think it is a good suggestion.

A suggestion was made to the subcommittee yesterday, I think it was, that in addition to what the budget now sets forth, it should set forth a projection of costs beyond just the immediate fiscal year, so that the Congress could get some idea of where we are heading with particular programs. And I think that too is probably a worthwhile suggestion if it is practical and not too expensive to do; because finally, as we reach this conclusion, I think, in order for the Congress to adopt any standards or criteria for efficiency in Government and where reductions can best be made, much more information will have to be available to the Congress than is presently available.

Would that be a fair statement in the opinion of you gentlemen?

Mr. HARBERGER. May I say, sir, I see a small difficulty here. I am much in favor of having really close scrutiny of expenditures and the way they are made. And my suggestion of having many, many more people, many times the number of people that we have, looking and seeking to make economies in Government, I think would be a tremendously good thing.

At the same time, I feel that the time to do this is not in the budget review. The budget is big enough, and it is a complicated enough document. Getting it through Congress is a big enough job the way it is.

The best we can do is to have a broad summary and outline of how the Government, in the biggest and broadest terms, is spending its money. That is the decision that Congress must reach at the moment when the budget comes through.

But day in and day out, through the year, in the separate committees, the Armed Services Committee ought to be looking daily into the budget of the military. And there ought to be people in different parts of the Federal Government who are also looking at it, in the administrative branch itself.

Representative MILLS. Well, there are staff people that do that.

Mr. HARBERGER. I am saying there should be more. The places where mistakes are being made should be thrown up, investigated at hearings like this, and others; and in a process quite distinct from the budget process, I would say.

If we tried to look into every line and item in the budget and to make it a very detailed document, it seems to me we would be complicating the process of getting the budget approved to the point where it is going to be a tremendous stumbling block.

Representative MILLS. Well, I believe actually, Professor Harberger, that you are overstating a problem. I honestly do. The budget should contain, as I see it, enough information for the Congress to be able to make evaluations between programs and the extent to which programs should be supplied with money. And I do not understand how we can do that except that there be some projection in the budget of what the program hopes to achieve in dollars or otherwise.

And we do not have it. As long as we do not have it, I doubt if we can have all the criteria we need for making anything like a scientific decision about the budget.

Mr. HARBERGER. Let us say there is strategy and tactics. And what you are saying, with which I agree, is that the strategic operation of the budget should be put out in as clear form as possible together with what is expected from each program.

And what I am saying is that we can not carry the principle too far to get down to the tactical level and take each little item in the Defense Department.

This \$40 billion that we are spending for defense, we cannot within the budget trace down every last dollar or even every last thousand dollars, or even every last million dollars. What we do need, though, is the sort of broad projection that you asked for.

Representative MILLS. Any further statement by the members of the panel? If not, first let me express regret that Prof. Alfred G. Buehler of the Wharton School of Finance, University of Pennsylvania, and Prof. C. Lowell Harriss, of the department of economics, of Columbia University, could not be with us.

One of the gentlemen advised us by telegram that he had contracted a virus that prevented him from being here. And the other is, I understand, out of the country.

We do appreciate you four being present. We appreciate very much the contribution that you have made today, to our study of Federal spending policy.

The committee stands adjourned until 10 o'clock in the morning. We will resume in this room.

(Whereupon, the hearing of the subcommittee recessed at 4:14 p. m., to reconvene at 10 a. m., Wednesday, November 20, 1957.)

FEDERAL EXPENDITURE POLICY FOR ECONOMIC GROWTH AND STABILITY

WEDNESDAY, NOVEMBER 20, 1957

CONGRESS OF THE UNITED STATES,
SUBCOMMITTEE ON FISCAL POLICY
OF THE JOINT ECONOMIC COMMITTEE,
Washington, D. C.

The subcommittee met at 10 a. m., pursuant to recess, in the old Supreme Court chamber of the Capitol Building, Representative Wilbur D. Mills (chairman of the subcommittee) presiding.

Present: Representative Wilbur D. Mills; Representative Thomas B. Curtis; Representative Richard Bolling; and Senator Ralph E. Flanders.

Also present: John W. Lehman, acting executive director, and Norman B. Ture, staff economist.

Representative MILLS. The subcommittee will come to order, please.

As I have indicated in my remarks in the preceding panels, the Joint Economic Committee and its subcommittees are concerned primarily in all their inquiries with Government policies directed toward the Nation's basic economic-policy objective, a high rate of growth in our productive capacity, with minimum fluctuations in the rate of resource use and in the general price level.

This morning we turn our attention to the specific question of the relationship of Federal spending programs to the processes of growth in the private sectors of the economy.

In view of the increasing demands that our defense burdens place upon us, it is almost impossible to overstate the importance of a high rate of increase in our economic capacity. It should be clear that our ability to maintain adequate defense preparations and at the same time provide for rising living standards depends directly on how rapidly the economy as a whole progresses.

We will proceed in these hearings in the order in which the papers appear in the compendium. At the start of each session, each panelist will be given 5 minutes in which to summarize his paper and we will hear from each panelist without interruption. Upon completion of the opening statements, the subcommittee will question the panelists for the balance of the session.

I hope that this part of the session can be informal, that all members of the panel will participate, commenting on the papers presented by other panelists and on the subcommittee members' questions.

We will hear first from Prof. Evsey D. Domar, of Johns Hopkins University.

**STATEMENT OF EVSEY D. DOMAR, PROFESSOR OF POLITICAL
ECONOMY, THE JOHNS HOPKINS UNIVERSITY**

Mr. DOMAR. Economic growth requires the fulfillment of two basic conditions: (1) A growing demand for goods and services produced by the economy and (2) a growth of its productive capacity. The first condition will be discussed by the panel on economic stability. I shall, therefore, concentrate on the second.

An increase in productive capacity depends on the following factors:

1. An increase in the labor force.
2. An improvement in health, education, and training of the labor force.
3. Development of knowledge, including technical knowledge, and its application.
4. Improved management and administration.
5. Accumulation of capital and improvement in its quality.
6. More efficient utilization and discovery of new resources.
7. Changes in other economic factors, such as composition of output, industrial structure, competition, and so forth.
8. Changes in general factors, such as attitudes toward work, effort, invention, thrift, risk, and so on.

Some of these factors can hardly be affected by Federal expenditures. For reasons explained in my paper, the latter can make their most important contribution to growth in the following fields:

1. Education and training.
2. Development of knowledge, that is, research.
3. Public health.
4. Natural resources.

I shall limit my remarks to education and research, both because of my greater ignorance of the last two and because education and research suffer from particularly serious deficiencies.

I should interject at this point that this paper was written before the Russian sputniks appeared in the sky.

The shortage of qualified teachers, overcrowding, and similar defects of our educational system are well known. Let me stress here another aspect which is so important for growth—the appalling waste of ability and talent caused by the failure of a large number of bright high-school graduates, estimated at 150,000 a year, to attend college. Nearly 40 percent of youngsters who graduate in the upper 20 percent of their class and who also have an intelligence score of 145 or over, which is very high, indeed—excellent college material—do not even enter college.

A system of Federal scholarships would, of course, help, but not perform miracles because many would go to students who would attend college anyway, while a sizable fraction of those who do not now attend are prevented by other than financial reasons. But if the scholarships are offered, they should not be restricted to scientists and engineers: we need able people in all fields. The supply of these specialists should be increased by drawing into colleges those men and women who stay out of them and not by denuding other professions and occupations of their best personnel. The caliber of students in the sciences is already very high.

What we need even more badly than Federal college scholarships is a basic improvement in our educational system, particularly on the

elementary and secondary level. One may wonder why the educational system of a prosperous country like ours is facing chronic and increasingly acute difficulties. Surprisingly enough, it is our prosperity and growth that create these difficulties. As the average productivity in our economy rises, so do wages.

Education, however, is an industry with little, if any, increase in productivity. If incomes in education keep pace with the rest, education must become ever more expensive. If they do not, quality deteriorates. Our educational system is suffering from both effects. It is most ironical that while education contributes so much to economic growth—perhaps more than any other activity—it suffers from the success of its own efforts.

Traditionally, education in this country has been financed by local governments, with some State support. Whether these sources can provide the needed funds for a vastly improved system can be argued, but that they will do so in the near future is most doubtful. I do not see how we can get an educational system which we so badly need for growth and for defense and can certainly afford without Federal aid on a large scale.

Our total expenditures on research have shown a marked rise in recent years, and larger Federal expenditures are now advocated. I welcome this, but with the following qualifications:

1. If the Federal Government increases its demand for research workers without helping to increase their supply, they simply will be shifted from non-Federal to Federal projects. In the short run this will accomplish some urgent objective such as missiles, but its long-run effects may not be desirable. The cold war may very well last for years, if not generations. We cannot lose sight of the long run.

2. Only 16 percent of Federal research expenditures in 1956 were in the nondefense category, and over 90 percent were for applied research, thus encouraging scientists to shift from basic research where funds are scarce, to applied research where they are more plentiful. And yet basic research is the foundation on which all other research is built. It is difficult to find a field more worthy of Federal support.

Thank you, Mr. Chairman.

Representative MILLS. Thank you, Professor Domar.

Prof. James Duesenberry, department of economics, Harvard University.

STATEMENT OF JAMES DUESENBERY, PROFESSOR OF ECONOMICS, HARVARD UNIVERSITY

Mr. DUESENBERY. Government expenditure programs increase the potential output of our economic system in a variety of ways. Expenditures for education and health are needed to maintain and improve the productivity of our human resources. The promotion of basic and applied research is important, not only for defense, but because it enables us to get more output from any given amount of labor and capital resources. Urban renewal programs are an investment because they conserve existing resources in housing and urban facilities.

Investments in education, health, and urban renewal pay off in dollars and cents terms, but they also provide important social and esthetic benefits to the whole community. The value we attach to those benefits depends on our tastes, but they should not be neglected on that account.

There is no doubt that many Government expenditures do make a contribution to economic growth. But so, of course, do many kinds of private expenditure.

If we undertake any program of Government expenditure we use resources which might be used for private consumption or private investment. By eliminating or reducing the scale of a Government expenditure program we make it possible to (a) reduce taxes and increase private consumption, or (b) reduce taxes on persons with high income and thereby increase personal saving, or (c) run a budget surplus and repay debt, thereby increasing the flow of funds to the private money market, or (d) reduce corporate income taxation to encourage private investment.

Although there may be some stringency during boom periods, it appears unlikely that there will be shortage of personal saving on the average during the next few years. There is, therefore, no point in restricting Government expenditures to produce budget surpluses or encourage personal saving. But some increase in the volume of private investment can be achieved by reducing corporate income taxes.

We must ask two questions about any Government investment: (a) Is its yield high enough to justify the sacrifice of private current consumption required to finance it, and (b) is its yield higher than the yield of private investments which could be made with the same resources? But the second test is only relevant if we are prepared to reduce corporate-income taxation.

As the professor shows in his paper on water resources, we have undertaken some water resources projects which cannot be justified on those criteria. On the other hand it seems likely that we are not spending enough on the conservation of our urban resources. We are almost certainly spending too little on education.

Because our population is rising and because the relative costs of Government services are likely to rise, the cost of existing Government programs will rise as time passes. That fact, coupled with the increasing burden of the defense program, leads to demands for Government economy and reductions in Government expenditures.

Everyone is for economy in Government. But true economy is not mere penny pinching. True economy is the use of every resource in the place where it will do the most good. It is not true economy to spend billions on new houses while we do nothing to prevent the deterioration of existing housing in blighted neighborhoods.

More generally, true economy in government requires us to ask whether any Government expenditure will produce something worth more than the alternative private expenditure. It does not require us to view every Government expenditure as a dead loss to be avoided if possible.

Representative MILLS. Thank you, Professor Duesenberry.

The next panelist is Mr. George G. Hagedorn, associate director of research, National Association of Manufacturers.

You are recognized for 5 minutes.

Mr. HAGEDORN. I would like to ask permission to depart to some degree from my prepared summary.

Representative MILLS. Please proceed in your own way.

STATEMENT OF GEORGE G. HAGEDORN, ASSOCIATE DIRECTOR OF RESEARCH, NATIONAL ASSOCIATION OF MANUFACTURERS

Mr. HAGEDORN. There is no rule of thumb which will enable us to calculate the level of Federal spending which would be most compatible with economic growth. Our Nation's economic history indicates that growth has taken place under a wide range of Government spending levels. There is no simple criterion, whose application in every specific case would be obvious, for deciding on the propriety or impropriety of any proposed expenditure.

But the absence of explicit rules means that spending trends will be determined by the habitual attitudes of those who make decisions and the basic principles they use as guides. The purpose of the present paper is respectfully to suggest attitudes and principles for guiding Federal spending in a direction most consistent with economic growth:

1. For certain purposes—national defense is an obvious example—it is necessary to spend our national income collectively through our Federal Government rather than privately by our own individual choices. Yet it does not follow that the subject of Government spending should be approached with an attitude of complete neutrality or indifference as between Government and private spending. Although private spending is not necessarily preferable in every case, it seems fair to say that the burden of proof ought always to be on those who would argue that a particular item of proposed Federal expenditures is more beneficial than the spending of the same amount by individuals. Any other attitude would be at variance with our tradition based on the principle of maximum individual freedom.

2. It is wrong to suppose that Government spending is, or could become, essential as a supplement to private demand in order to insure that our productive capacity will be kept employed. The occasional appearance of "insufficient demand" is merely the surface symptom of maladjustments in cost-price-profit relationships. Difficulties of this type cannot be relieved, and in fact are preserved, by increases in Federal spending. Government spending which is motivated solely by the desire to increase total demand is not a support to economic growth, but a dissipation of its benefits.

3. All Federal spending, to some degree at least, involves a sacrifice of private resources which would otherwise be available for expansion of the economy. Federal expenditures should be limited to the levels necessary to support the activities which only the Government can perform or which the Government can perform better than anyone else. There is, of course, plenty of room for argument in the application of this principle to particular cases, but that is not a justification for ignoring the principle.

4. An appraisal of the impact of growth on spending indicates no ground for the belief that Federal spending need increase *pari passu* with the growth of the economy. Certain needs, such as defense, are independent of the size of the economy. Certain other kinds of need

will actually decrease as we become more prosperous, as for example expenditures of the type intended to relieve individual distress.

5. One attitude, which seems plausible but which can frustrate progress, is the view that as our economy grows we will be able to afford more in the way of Government activities. The long-term expansion of our economy will increase the yield of any given tax schedule and some regard this as an opportunity to undertake new Government activities. But consistent application of this attitude would mean that the rising output produced by our individual enterprise system would be used as a basis for gradually extending the area of collectivist activity.

We already bear a heavy burden in the cost of government. An approach which systematically seeks out new outlets for Government spending as revenues grow is an excellent way of getting nowhere on this problem.

You gentlemen in Congress have difficult decisions to make in this area of Government spending. I wish we here could offer you some set of criteria which would enable you to decide which expenditures were justified and which ones were not. I am afraid there are no simple criteria on that point.

There is no simple rule of thumb by which we can apply a mathematical formula and determine what the total level or character of Government expenditures should be. That being the case, what happens in the field of Government expenditures is going to depend on the basic philosophy and attitudes of those who are in the position of making decisions. And I would like respectfully to make some suggestions as to basic philosophy and attitude.

I think the committee already has heard considerable discussion bringing out the point that every Government expenditure is a choice in which benefits must be balanced against costs—the cost not being necessarily merely the dollar amount, but the alternative uses to which the resources taken by the Government may be used.

Very often—probably in most cases—we cannot make a neat calculation of the benefits on the one side and the costs on the other. But nevertheless we should always have in mind the two sides of the scale. That being so, it is true that in some cases the benefits from Government expenditures outweigh the benefits that might have been obtained from private spending of the same amounts or private seizure of the same resources. The case may turn out in one direction in one instance; and in another direction in the other instance; everybody recognizes that.

But that does not mean that we necessarily have to approach this problem with an attitude of complete neutrality, that Government expenditures may be better than private expenditures, or private expenditures may be better than Government expenditures.

I would suggest we approach it with a prejudice in favor of private expenditures and against Government expenditures. That may seem shocking. The word "prejudice" is a bad word in most of our vocabularies. It may seem intellectually shocking that we should approach any problem with any prejudice. But I would remind you that in our basic philosophy on social questions, we agree in many instances that particular cases should be approached with certain presuppositions.

For example, in our criminal trials we always start with the presumption that the accused person is innocent until he is proved guilty.

We start with that prejudice, if you want to call it so. And that is justified. We feel by starting with that presupposition we protect human freedom.

I would like to suggest that in questions of Government spending, they should be approached with the prejudice or presupposition that private spending is to be assumed to be a superior, better, objective than Government spending. Of course though we approach it with that presupposition, we give those who make the contrary claim full opportunity to prove their case.

What it comes down to is the attitude that the burden of proof should always be on those who argue that a particular item of Government expenditure is of more benefit to all of us than the spending of the same amount by private persons.

A second point I would like to make in the broad philosophical background of these problems: It is wrong to suppose that Government spending is, or could become essential as a supplement to private demand in order to insure that our productive capacity will be kept employed. Many people are concerned about projections of our future productive capacity. As productivity grows and our population grows, and so forth, they feel that there may be an acute problem in disposing of all that output; that demand will not be sufficient.

And then it appears to those who believe in that philosophy that the obvious thing to do, or one obvious thing to do, is to have the Government buy up the surplus that would otherwise not find a market.

But the occasional appearance of insufficient demand is merely the surface symptom of maladjustments in the cost-price-profit relationship. Difficulties of this type can not be relieved and in fact are preserved by increases in Federal spending.

Government spending, which is motivated solely by the desire to increase total demand is not a support of economic growth, but a dissipation of its benefits.

A third point is that all Federal spending, to some degree at least, involves a sacrifice of private resources which would otherwise be available for expansion of the economy. Federal expenditures should be limited to the levels necessary to support the activities that only the Government can perform or which the Government can perform better than anyone else. There is of course plenty of room for argument in the application of this principle to particular cases, but that is not a justification for ignoring the principle.

An appraisal of the impact of growth on spending indicates no ground for the belief that Federal spending need increase *pari passu* with the growth of the economy. Certain needs, such as defense, are independent of the size of the economy.

Certain other kinds of need will actually decrease as we become more prosperous. As, for example, expenditures of the type intended to relieve individual distress.

Fifth, and a most important point, one attitude which seems plausible but which can frustrate progress on this problem is the view that as our economy grows we will be able to afford more in the way of Government activities and should therefore have them.

The long-term expansion of our economy will increase the yield of any given tax schedule, and some regard this as an opportunity to undertake new Government activities. But a consistent application of this attitude would mean that the rising output produced by our

individual enterprise system will be used as a basis for gradually extending the area of collectivist activity.

We already bear a heavy burden in the cost of Government. An approach which systematically seeks out new outlets for Government spending as revenues grow is an excellent way of getting nowhere on this problem.

Thank you.

Representative MILLS. Thank you.

Our next panelist is Mr. Stanley Ruttenberg, department of research, American Federation of Labor and Congress of Industrial Organizations.

You are recognized for 5 minutes.

Mr. RUTTENBERG. I apologize for not having a summary of my paper. But I shall read excerpts from it.

STATEMENT OF STANLEY H. RUTTENBERG, DIRECTOR OF RESEARCH, AMERICAN FEDERATION OF LABOR AND CONGRESS OF INDUSTRIAL ORGANIZATIONS

Mr. RUTTENBERG. Federal expenditures are neither good nor bad in themselves. They must be viewed in terms of their purpose and relation to the gross national product, in relation to the level and trend of private activities, and in relation to fiscal and monetary policies.

It is sheer nonsense to say, as some have said or have implied, that any rise in Federal spending is a threat to our national well-being.

To meet the needs of national security and some of the needs of our growing population may well require a rising level of Federal expenditures. It is also ridiculous to proclaim, as some have, that a dollar spent by a private person is always somehow preferable to a dollar spent by government.

There is a positive economic role for government: defense, education, postal services, roads and conservation of natural resources, are but a few functions that require some outlays by one or another level of government.

I am convinced that the subject of Federal expenditures, of economic growth and its economic policy implications is more a social and political problem than one of economic theory. Arrival at some general conclusions on this subject by this, or any similar panel, is not going to provide us with a bold national leadership. Economic theory alone is not going to produce serious concern among private and public policymakers with the social objectives of a rich and productive economic system such as ours.

Can we expect to meet the growing needs of a growing population with real or dollar outlays for public service that are no greater than in 1940? I think not.

I do not see how any thinking person can advocate chopping away at public-service expenditures and expect the Nation to maintain adequate educational, health, road, and similar facilities.

Furthermore, there have been 15 years of postponed and neglected public-service efforts. Our population has grown almost 30 percent since 1940, and the proportion of the population below working age at one end and of the population scale and above 65 at the other end has been rising. Not only have public-service needs as a whole grown, but

the public-service needs of the young and the elderly have grown much more rapidly.

In addition to the expansion in the changing characteristics of the population, our standard of living has also improved. There are needs for education beyond the elementary school. Technological changes in the Armed Forces require an increasing degree of advanced change. Increasing leisure has increased the demand for adult education. Paid holidays and vacations have resulted in pressing demands on our existing recreational facilities.

If we compare nondefense budget expenditures in 1940 and 1946, we find the following: In 1940, the Federal budget expenditures for nondefense were \$6.9 billion in an economy whose gross national product was about \$100 billion.

These outlays, therefore, were less than 7 percent of total national output in 1940. Between 1940 and 1956, our gross national product rose more than 4 times, and our population increased almost 30 percent. But in 1956 Federal budget outlays for nondefense purposes were only 6.2 percent of a \$415 billion gross national product. Even if we allow for the fact that much of the Federal outlays in 1940 were for unemployment relief and similar programs, there has been a significant cut in nondefense expenditures on a per capita basis between 1940 and 1956.

Organized business and conservative politicians were screaming to the high heaven about these 1956 expenditures, predicting gloom and doom despite the vast subsidies that go to business, largely in the indirect form of tax concessions.

It seems that the growth of population and the expansion of public needs justifies some significant improvement in public and social services. Merely to have lifted nondefense expenditures to 7 or 7½ percent of gross national product would have boosted outlays for these purposes \$3 billion to \$5 billion more than is now being expended. Seven percent of a hundred billion dollars' output in 1940 was \$7 billion; but 7 percent today would be \$29 billion.

What is the purpose of sustaining continued economic growth and high levels of employment? Is our aim only to turn out more and more automobiles and electric appliances? Should a rich and growing economy seek to wipe out remaining pockets of poverty; to eliminate slums and provide improved housing; to halt decaying urban centers; to encourage cultural activities? Such an economy as ours shifts in an increasing degree to leisure and leisure-related activities. Economic growth, it seems to me, makes it possible for the Nation to devote an increasing dollar outlay for public services and social advances.

Almost all the efforts in improving public services and enriching our social order inevitably fall upon the Government, both upon Federal Government leadership and expenditures. Many of the taxes are national in scope and require national direction or coordination. Many of them are too costly for conventional financing by States and local governments. They require Federal outlays, grants-in-aids, or long-run programs.

To talk about shifting current social-welfare programs and future programs to the States is to undermine the possibility that much action on such programs will be taken in the foreseeable future.

We need Government policies to encourage continuing economic growth. Certainly not Government measures to restrict the general level of economic activity. We need an expansion of Federal efforts to improve public services and to strengthen our society. We need an equitable and progressive tax structure in the States as well as the Federal Government level. We need more and better economic data and more information about current movements of the business cycle and the effects of specific types of Federal action. But above all, we need national leadership worthy of a rich and productive democratic society.

Representative MILLS. Mr. Ruttenberg, you left out some of your statement. Without objection, your entire statement will appear in the record.

(The prepared statement follows:)

Serious discussion in the public arena of the economic policy implications of Federal expenditures has been increasingly hampered by the barrage of emotional sloganeering of the two major business organizations and lack of leadership by the administration.

If these hearings help to clear away only a small part of the emotional impediments to a calm appraisal of this issue, it will serve a most worthwhile purpose.

Unfortunately, however, academic discussions of this topic can be only partially helpful, at best. As long as the administration and the Congress deal with this issue in the 19th century cut-expenditures-enlarge-the-pork-barrel manner, little significant progress can be made in the necessary public understanding of the role of Federal expenditures in our national economic development. There is a huge reservoir of nonsense on this issue, that has been spread widely by people in responsible positions.

Federal expenditures are neither good nor bad in themselves. They must be viewed in terms of their purpose, in relation to the gross national product, in relation to the level and trend of private activities, and in relation to fiscal and monetary policies.

It is sheer nonsense to say—as some have said or have implied—that any rise in Federal spending is a threat to our national well-being. To meet the needs of national security and some of the needs of our growing population may well require a rising level of Federal expenditures. Under such conditions—that characterize the current period of our history—it is the duty of Federal Government leadership to seek the adoption of adequate and fair tax and monetary policies to meet our national needs, rather than to ignore defense and social necessities.

It is ridiculous to proclaim—as some have declared—that a dollar spent by a private person is always somehow preferable to a dollar spent by Government. There is a positive economic role for Government—defense, education, postal services, roads, and conservation of natural resources are but a few functions that require some activities and outlays by one or another level of government.

It serves no purpose other than confusion to wield the broadax blindly at suggested Federal expenditures and, at the same time, to thank God that Federal expenditures have been helping to hold up the level of economic activities—as did many responsible people in the first half of 1957.

Neither does it serve any purpose of achievement or understanding to propose Federal programs on the one hand, to threaten the Nation with disaster if they are adopted, on the other hand, and to acquiesce quietly to their defeat—as the administration did on so many public-welfare-program issues in the past session of Congress.

It is disgraceful that the Russians should have been first in firing successfully an ICBM. The budget and the legislated debt limit seem to be the major criteria for meeting defense needs, as well as public service needs.

I stress these factors because I am convinced that the subject of Federal expenditures and economic growth, in its economic policy implications, is more of a social and political problem than one of economic theory. Arrival at some general conclusions on this subject by this or any similar panel is not going to provide us with a bold national leadership. Economic theory alone is not going to produce serious concern among private and public policymakers with the social objectives of a rich and productive economic system such as ours.

To discuss properly this subject of Federal expenditures and economic growth, there are a number of questions that first must be posed and answered.

QUESTIONS ON FEDERAL EXPENDITURES POLICIES

Can we conceivably expect, within the near future, any substantial reduction of defense expenditures, by about \$10 to \$20 billion—and thereby obtain some significant cuts in Federal spending? I do not believe so, in the absence of some settlement of world tensions, because I do not believe that the world we live in will permit such cuts in Federal spending, unless we are prepared to face the alternative of a loss of national sovereignty and a collapse of the free world. I therefore expect Federal expenditures to be high and to remain high in the foreseeable future, by comparison with pre-World War II peacetime years.

Can we expect to meet the growing needs of a growing population with real or dollar outlays for public services that are no greater than in 1940? I think not, and I do not see how any thinking person can advocate chopping away at public-service expenditures and expect the Nation to maintain adequate educational, health, road, and similar facilities. Furthermore, there have been 15 years of postponed and neglected public-service efforts.

Our population has grown almost 30 percent since 1940, and the proportion of the population below working age at one end and above 65 at the other end has been rising. Not only have public-service needs as a whole grown, but the public-service needs of the young and the elderly have grown most rapidly.

In addition to the expansion and the changing characteristics of the population, our standard of living, as well, has improved. There are greater demands and greater needs for education beyond the elementary school; technological changes in civilian pursuits and in the Armed Forces require an increasing degree of advanced scientific education and technical training; increasing leisure has increased the demand and need for adult education; paid holidays and vacations have resulted in pressing demands on our existing recreational facilities.

If we compare nondefense budget expenditures in 1940 and 1956, we find the following: In 1940, Federal budget expenditures for nondefense were \$6.9 billion in an economy whose gross national product was \$100.6 billion; outlays were 6.9 percent of total national output. Between 1940 and 1956, our gross national product rose more than 4 times and our population increased almost 30 percent. But in 1956, Federal budget outlays for nondefense purposes were \$25.8 billion, 6.2 percent of \$414.7 billion gross national product.

Organized business and conservative politicians screamed to high heaven about these 1956 expenditures, predicting gloom and doom, despite the vast subsidies that go to business, largely in the indirect form of tax concessions. It seems to me, however, that the growth of the population and expansion of public needs justify some significant improvement of public and social services. Merely to have lifted nondefense budget expenditures to 7-7½ percent of gross national product would have meant Federal outlays for these purposes of \$29 billion to \$31 billion—it would have made possible an increase of some \$3 billion to \$5 billion over what was actually spent for public services and social programs.

As I look at these figures, I am utterly convinced that the problem is not whether we can afford some improvement of public and social services. The problem is a political one, with the administration and the Congress. The question is whether our national leadership desires a significant improvement of public and social services.

Should an expanding high-employment economy have social objectives that are somewhat more meaningful than rising lines on charts and a continuing outpouring of automobiles and other consumer durables? My answer is definitely in the affirmative. During the depression of the 1930's, we concentrated our attention on achieving full employment, more effective use of our productive capacity and a more equitable distribution of income. Since 1940, we have made vast strides in those directions. We now have the job of sustaining economic growth and high levels of employment and of achieving some further improvements in income distribution. But more than 15 years of generally high levels of employment and production have posed new questions that deserve the attention of national leadership.

What is the purpose of sustaining continuing economic growth and high levels of employment and output—is it merely to turn out more and more automobiles and electrical appliances? Should a rich and growing economy seek to wipe out

remaining pockets of poverty? Should the benefits of economic growth be used to improve the Nation's health and educational facilities, to eliminate slums and provide improved housing, to revive decaying urban centers, to encourage cultural activities? Should an economy, such as ours, shift an increasing degree of attention to leisure and to leisure-related activities?

I would suggest that the Nation's productive ability, after more than a decade of generally high employment, makes it possible for us to turn at least part of our attention, to these social objectives. An expanding and productive economy, such as ours, can afford to devote a share of the gross national product—as well as imagination and leadership—to eliminate poverty, to improve health and educational facilities, as well as housing, to redevelop our urban centers, to conserve and develop natural resources, to expand recreational and cultural facilities.

Economic growth makes it possible for the Nation to devote increasing dollar outlays for public services and social advances. Seven percent of a \$100 billion output in 1940 was \$7 billion—7 percent for public services, social programs, and other nondefense purposes of a \$415 billion output in 1956 would have been \$29 billion.

Furthermore, economic growth expands the tax base and revenues rise as output and sales grow. There is no doubt that the national economy can afford to improve and expand its public services and devote some portion of its total output to enrich our social order. In some of these areas the question, I believe, is whether we can afford not to make improvements—in education, for example, or resource development or urban redevelopment.

Can we expect the business community to finance such developments? I think not, and it would be unreasonable to expect profit-seeking enterprises to do very much along these lines. It is a tragedy, however, that the business community traditionally blocks such advances by Government, as revealed again, in the past few months, by the organized business attack on Federal aid for education. The record of the business community on these issues is overwhelmingly negative, except where it touches the pocketbook nerve of specific business interests, as indicated by the widespread built-in business support for Federal outlays for road building.

NATIONAL LEADERSHIP IS REQUIRED

Almost all of the efforts in improving public services and in enriching our social order, therefore, inevitably fall upon the Government, upon both Federal Government leadership and expenditures.

A frequent answer to questions, such as those posed above, is to talk about States rights and to declare that these tasks belong with the States. That reply is often a subterfuge and, more often, it is meaningless. Many of these tasks are national in scope and require national direction or coordination. Many of them are too costly for conventional financing by State and local governments—they require Federal outlays, grants-in-aid or long-term loans.

Few States have responded, with positive action, to these issues in recent years. With their current financial burdens and constitutional limitations on expenditures and new bond issues, it is unrealistic to expect much significant action on public welfare programs in most States without long, time-consuming delays, at best—especially in the absence of courageous State leadership and national prodding to obtain necessary constitutional changes and improvements of State tax structures.

It is no wonder that the States have done so little in these areas in recent years. Not only are they burdened with committed outlays, frequently inadequate revenues and constitutional limitations, but most State legislatures are so constituted as to be far less than receptive to public service and social programs and improvements of regressive tax structures. Most State legislatures are poor examples of representative democratic government—with their "rotton borough" representation and substantial underrepresentation of the urban population.

To talk about shifting current social-welfare programs, and future programs to the States, is to undermine the possibility that much action on such programs will be taken in the near and foreseeable future. It is hypocrisy on the part of the States' righters to say that the Federal Government should not engage in civilian public services such as aid to localities with chronic unemployment and financial assistance for schools and hospitals. If the States' righters were sincerely interested in strengthening State governments, they would be in forefront of efforts to make State legislatures more representative of the population, to modernize State constitutions, and to rebuild their State and local tax structures on the basis of ability to pay.

Federal expenditures, as I see it, have to be viewed in the light of these and similar considerations—high dollar outlays by comparison with pre-World War II peacetime years due to national security requirements, the growing public service needs of a growing population with changing characteristics, the need for social objectives of an expanding high-employment economy and the ability of such an economy to turn more of its output and attention to fulfilling these social objectives, and the reality that the States cannot be expected, without long delays, to take leadership on these issues. Federal expenditures have to be viewed, too, in terms of economic growth that expands the tax base and raises the revenue potential from a given tax rate.

This Nation is capable of meeting its currently normal defense requirements, as well as improving and expanding public services and social programs, if we are fortunate enough to avoid all-out war or a sudden sharp rise in defense outlays. The problem is essentially not an economic problem—it is a political one.

MEETING THE CHALLENGE OF ECONOMIC GROWTH

Foremost, as I see it, is the issue of meeting the public service needs and social advances of a growing population in a rich and highly productive economy. I think it is wrong to base Federal expenditure policies on compensatory financing alone. If we continue to concentrate all of our policies on the basis of compensatory Government operations and to delay needed programs, as we have done since the start of World War II, we will be sadly neglecting important underpinnings of our economic system and society.

To think of economic growth as most economic-model theorists do, is to omit the important human and social aspects of economic development. Basically, economics is not numbers, graphs, or charts—it is human beings and society. The school system is a major factor in economic growth. So are the conditions of the people's health, housing, and urban areas, roads, resource conservation and development.

In working on economic development plans for underdeveloped countries, economists have all too often planned complicated hydroelectric and irrigation projects, without thought for the need of engineers, steel mills before considering the need for technically trained workers, industrial activities while neglecting the requirement for continuing maintenance of the equipment. In thinking about future economic growth in the United States, we should not and cannot ignore the human and social requirements of continuing economic expansion.

This country's educational system has contributed much to improving productive efficiency and economic growth. The cultural heritage of the western world—and of the American people—must be adequately passed down to the new generation. To neglect our educational system at this time of rapid technological change will undermine the potential for economic growth and improving productive efficiency in the future.

Not only is there obvious need for adequate educational facilities—structures and equipment—there is also the need for teachers. Society must be willing to provide these necessities, if it is to continue its advances. Our educational system should be considered at least as important to the Nation as automobiles and washing machines which receive so much of the public's attention. National and State leadership is required to speak up clearly and forthrightly on the needs of our educational system. Federal aid for education is essential for the economic, as well as general well-being of the Nation.

Resource conservation and development may be somewhat more directly related, in the public mind, with economic growth. But even here, practical efforts and achievements in most fields have been far from noteworthy since the start of World War II. It took many years of work by people like Theodore Roosevelt and Gifford Pinchot, before the various levels of government and sections of industry became concerned with conserving our timberlands. We would be hard-put at present to find national leadership of similar force in the effort to preserve and extend our forest conservation programs, in efforts to move toward new river valley developments that would curb flood disasters and enrich the economic potential of several areas of the Nation, to conserve and develop water resources in an attempt to forestall serious water shortages for industry and agriculture in the Western States.

Although the administration has talked about the need for some program to assist economically distressed communities—ever since the 1952 campaign—no legislation on this issue has yet been adopted. Improvement of the economic

conditions in such communities would obviously be of assistance in sustaining continued economic growth.

These and similar efforts that require Federal Government outlays and leadership are essential for continuing economic expansion. They form part of the social underpinning for economic growth. Such programs should be started as soon as possible, and they should move forward at a steady pace—to be curtailed in the case of a sudden sharp rise of defense expenditures and to be stepped up when private economic activities decline.

What we need at present is not a backlog of public service programs and blueprints that can serve as a means for holding many conferences, but going programs to strengthen and enrich our society.

MEETING THE CHALLENGE OF THE BUSINESS CYCLE

In recent years, most attention to movements of the business cycle have been on inflation, rather than on deflation. High Government outlays, by comparison with the past, we are told, are inherently inflationary and an excess of Government outlays over revenue will inevitably cause demand-inflation. This is decidedly not what has happened in recent years and experience should have taught us long ago, that Government expenditures should be viewed in relation to the gross national product and the level and trend of private activities.

In fiscal years 1947 and 1948, Federal outlays were declining, and there were substantial Federal cash surpluses—\$6.7 billion in 1947 and \$8.9 billion in 1948. Nevertheless, there were sharp price rises in those years—due to the pent-up demand for all types of consumer and capital goods and to the untimely end of OPA. In fiscal 1951, the year of post-Korean sharp price increases, there was a cash surplus of \$7.6 billion; and in fiscal 1956, when wholesale prices moved up rapidly, there was a cash surplus of \$5.1 billion.

Sharply reduced Government expenditures, as in fiscal 1947, are not guarantees that price rises will not occur. Neither will substantial cash surpluses, in themselves, guarantee against a rising price level.

Federal expenditures, surpluses, or deficits are neither inherently inflationary or deflationary, in themselves. The level of Federal outlays—as well as of cash surpluses or deficits—are of great importance, when examined in relation to the levels and trends of activities in the other sectors of our economic system and in relation to fiscal and monetary policies.

Concentration of Government activity on anti-inflation policies and restrictive measures, rather than on economic growth, is a departure, it seems to me, from the intent of the Employment Act. It is the maintenance of economic growth to which the Federal Government is committed, under the terms of that act, although the administration seems to be too little aware of its obligation under the law.

Continuing economic growth is essential for the maintenance of material strength and high levels of employment. It is likewise essential for meeting national security requirements and for improving living conditions. Economic growth, in the past, made possible the great material achievements of the Nation. It can make further advances possible.

As the economy grows, its tax base expands and increased revenues can be collected from a proportionately smaller burden on individual taxpayers.

Government policies and measures are important in maintaining economic growth. Changes in Federal expenditures have an effect on the direction of national economic activities, depending on trends in the private sectors.

A significant change in the dollar level of Federal expenditures has an obvious effect on the trend of economic developments, depending on fiscal and monetary counteraction, if any. The degree of effect would depend on the magnitude of the change, as well as on the direction of private activities.

A decline of Federal expenditures of \$11 billion between 1953–54 was bound to have a depressing effect, since no significant private activity was moving up sharply. The effect of the cut of Federal expenditures was to reduce orders, and induce business to cut inventories, output and employment in defense-related industrial plants, to reduce income from private activities and to depress expectations generally. The psychological effect of a significant change in direction of Federal expenditures can and does have an economic impact—as in 1953—even before the actual cuts, or increases, in Government outlays occur.

One cannot forecast these effects with mathematical certainty. It is even more difficult to measure the precise effects of one type of program, as compared with an alternative program. The direction, however, can more easily be foreseen.

Improvements in the unemployment compensation and social security systems help to bolster consumer income at a time when wages and salaries from private activities are declining. An increase in transfer payments of \$1.9 billion between 1953 and 1954 helped to produce a small rise in total personal income, despite a decline in labor and farm incomes. This maintenance of high levels of personal income during the 1953-54 downturn helped to reduce the impact of the decline in Government spending and in industrial output. The reduction in personal income taxes, effective January 1, 1954, had a similar strengthening effect on consumer buying power, which cushioned the economic decline.

Alternative types of programs have differing effects in specific areas of the country, specific industries, and among specific groups of the population. The recent cutbacks of defense outlays, particularly aircraft, for example, have had the most notable effect as yet in California and seem to have dampened expectations generally.

Countercyclical policies, when economic activities are moving down, should require, I think, a stepping-up of Government-expenditure programs, tax cuts or a combination of both. On this, there is little disagreement amongst most Americans. There is disagreement, however, on the issue of which part of the economy should receive most Government attention.

During the downturn of 1953-54, the administration strongly emphasized its views that Federal efforts should be concentrated on stimulating business investment. We, in organized labor, opposed the administration's suggestions—we were convinced that the administration's proposals were based on faulty economics and would further erode the progressivity of the Federal tax structure. We are now convinced that the administration's success produced a lopsided economic development between the spring of 1955 and the end of 1956—sharply rising business investment in new plant and equipment, accompanied by sluggish consumer markets. We are now beginning to see some of the consequences of this lopsided development that was encouraged by administration policies.

With current cuts in defense outlays, at a time of a general lull in economic activities, it is my belief that a cut in the Federal income tax, by increasing the individual exemption from \$600 to \$700, is essential. It was my view before this committee, several months ago, that congressional action on reducing individual income taxes should have been taken immediately, by the past session of Congress, accompanied by closing some of the many tax loopholes, if possible. Action on this issue by the forthcoming session of Congress may be too late to halt a downturn from getting underway.

Involved in any countercyclical policies, therefore, is the economic sector or population group to be affected, and proper timing. It is my view that, under most conceivable conditions of a turning down of economic activities, the major part of the Government effort should be aimed at bolstering consumer buying power. In our kind of economy, the long-run health of the system largely depends on consumer activities.

This point, as I see it, should be kept in mind in pursuing economic policies to forestall a decline in economic activities and, also, in pursuing policies to curb the possibility of demand inflation.

Built-in stabilizing forces should be strengthened so that their action may be forceful at the beginning of a downturn. That would mean, among other things, the development of Federal standards for the unemployment-compensation system and a general improvement of that system. It would mean, too, a substantial overhaul of the Federal tax structure to restore that structure's progressivity—so that Federal revenues could be raised more on the basis of ability to pay than they are at present.

The built-in stabilizers, inherited from the New Deal and Fair Deal, are strengthening factors in our economy and society. They do not and cannot provide, however, in my opinion, a guaranty against depression.

While the built-in stabilizers would go to work automatically, in case of a downturn, their operations may conceivably only alleviate a downswing and not halt it. Tax cuts should be considered. Government public service and social programs, under those conditions, should be stepped up. Tax cuts and the stepping up of such programs should not and need not await economic disaster; quick Federal action is essential when production is declining and unemployment is rising rapidly.

In order to build confidence, strong countercyclical measures should be the announced policies of the Federal Government. The American people have the right to expect intelligent and courageous action from their Government.

In conclusion, I should like to emphasize my conviction that the subject we are discussing is much more of a political issue than an economic one. We need Government policies to encourage continuing economic growth—certainly not Government measures to restrict the general level of economic activities. We need an expansion of Federal efforts to improve public services and to strengthen our society. We need an equitable and progressive Federal tax structure—and in the States, as well.

We need more and better economic data and more information about current movements of the business cycle and the effects of specific types of Federal actions.

But, above all, we need national leadership, worthy of a rich and productive democratic society.

Representative MILLS. Our next panelist is Prof. Daniel C. Vandermeulen, department of economics, Claremont Graduate School and Claremont Men's College.

You are recognized for 5 minutes.

STATEMENT OF DANIEL C. VANDERMEULEN, ASSOCIATE PROFESSOR OF ECONOMICS, CLAREMONT GRADUATE SCHOOL AND CLAREMONT MEN'S COLLEGE

Mr. VANDERMEULEN. Both historical studies and theoretical models emphasize the salient role in economic growth of what I shall call productivity-increasing expenditure, sums spent to augment the quantity and quality of natural resources, the skill and education of labor, and the stock of pure and applied scientific and technological knowledge. Historical studies show that the growth of real, per capita income in the United States is, in large measure, due to increases in productivity; that is, greater output per unit of input. Theoretical models stress the need for advances in science and technology to keep capital formation and national income at sufficiently high levels. Thus productivity-increasing expenditures exert a powerful leverage upon economic growth by stimulating capital formation and by making capital once constructed, as well as other inputs, more efficient.

Economists have traditionally looked upon the private economy as a mechanism for dividing expenditures, and, hence, the available productive resources between consumption and capital formation. For the study of growth, the private economy must be regarded as a mechanism for effecting a three-way division that includes productivity-increasing expenditures. It is important that such spending be carefully segregated and measured, as is not now done, and that its dependence upon national income and other variables be thoroughly investigated.

As currently treated in national income accounting, governmental expenditures are the biggest obstacle to the study of growth, since there is not even a separate classification of capital formation. It is important that governmental outlays be subject to the same three-way division as private spending so that we may know how total expenditures and total resources are being divided among consumption, both private and collective, capital formation, both private and public, and increases in productivity by both sectors.

It is desirable, also, to know the extent to which Federal participation in each type of expenditure is direct—as by providing

national parks and armaments; joint with the private economy—as by building roads but not operating trucks; or by subsidy of the private economy—as in veterans' educational benefits. The effect of Federal expenditures upon economic growth depends not so much on the total amount spent as on the way in which that spending, directly, jointly, or by subsidy, affects the division of total resources among consumption, capital formation, and increases in future productivity.

Because of their strategic role in economic growth and because of the cumulative nature of the effects, productivity-increasing expenditures should be kept at a high and stable level. Such expenditures by the private economy, and also by State and local governments, are sensitive to variations in national income. Furthermore, in periods of prosperity this type of spending by private business is likely to be checked by rising interest rates, which act most strongly against long-range projects. There may also be some conflicts between private and social goals, since, by attracting an able scientist from pure to applied research, a firm may appropriate to itself the entire gain while the loss is widely diffused.

Finally, except for the largest and most secure of firms, competitive pressure and lack of funds may compel most business firms to take a short-range view and neglect basic research. From a social point of view, therefore, productivity-increasing expenditures by the private economy and local governments tend to be too small, too highly variable with income, and too heavily slanted toward short-run objectives.

With respect to income and employment, the failure of the private economy to provide high and stable levels has led to a generally recognized Federal responsibility in this area. I believe that it is at least equally important that the Federal Government assume ultimate responsibility for the level, stability, and composition of productivity-increasing expenditures. To some degree, this objective is served by a policy of stabilizing income and, hence, the outlay and research and education by the private economy and local governments.

It is not feasible to try to offset such cyclical variability as may remain, nor are productivity-increasing expenditures suitable for intermittent compensatory spending. Rather, Federal expenditures of this type should be set very high, to offset any deficiencies of the private economy, and then allowed to grow with the volume of productive resources. Of greatest importance is that these outlays be immune from budget-cutting pressures in both depression and inflationary periods. Since scientific and technological advances stimulate growth, and growth appears to breed instability, this high level of Federal spending on research may cause intensified cycles and even inflationary pressure of relatively long duration. Any such consequences, it seems to me, are better counteracted by other means than by permanently lowering or by varying, countercyclically, Federal expenditures on increases in productivity.

Representative MILLS. Thank you, Professor Vandermeulen.

Our next panelist is Prof. David McCord Wright, Department of Economics and Political Science, McGill University.

Professor Wright, you are recognized for 5 minutes.

STATEMENT OF PROF. DAVID McCORD WRIGHT, DEPARTMENT OF ECONOMICS, MCGILL UNIVERSITY

Mr. WRIGHT. I am sorry to say that my statement, which was mailed from Montreal on Saturday, does not seem to have reached Washington in time.

It was, however, for the most part, merely a repetition of what is in the volume here. And so I am going to give the following brief statement instead. Unfortunately, I have only two copies of it. In my prepared statement I quoted the following jingle of Professor Boulding—

We all, or nearly all, consent
If wages rise by 10 percent
It puts a choice before the Nation
Of unemployment or inflation.

The factual base of this little jingle is that given an average rate of growth of, say, 2½ percent per year, an overall annual increase in money wages of 10 percent per year cannot possibly be absorbed without 1 of 2 things: inflation or unemployment. One can underwrite the increase of average money wages by creating more money. But that will just bring on inflation.

On the other hand, if one does not increase the money supply, prospective profit margins will be severely cut and unemployment especially in the investment industries will result.

It seems to me our present economic condition presents this problem though not quite as sharply as the little jingle implies. Wages have been rising faster than prices and productivity for some time. That is to say, wages have tended to go up around 4 and productivity around 2. But these figures are so vague that I do not want to be hung on either of them. It is sufficiently clear that wages have been rising faster than prices and productivity to some extent. Profits have certainly not increased a proportionate amount. So we have substantially the situation I have talked about in the jingle.

As long as purchasing power was being made continually available by bank credit and Government expenditure, expansion continued. But inflationary pressure finally broke through into prices. The interest rate was raised, the rate of Government expenditure declined. Accordingly we have had some slacking off. The fall of the stock market was a perfectly natural adjustment to higher interest rates. It does not, of itself, show any fundamental weakness of the economy.

Whenever inflation is halted there is a period of readjustment. We cannot have it both ways.

Shall we now, on the basis of some slight tapering off, relax our efforts to control inflation, loosen up credit, and unbalance the budget? It seems to me altogether premature to do so. Defense expenditures appear due for a considerable up. Consumer expenditures are still high. We have by no means fully digested the effect of past wage increases, much less should we permit future ones. The trouble is that money injected to stabilize now will not just die. It will stay around to reinforce further inflation, if expansionary pressure continues.

Thus, if we go all out to fight possible depression too soon, we may find that all we have done is to make an inflationary trend worse.

Representative MILLS. Thank you, Professor Wright.

I want to thank you gentlemen for the constructive statements you have made to the subcommittee this morning. As I have indicated, I

think our concern, which is increasingly shared throughout the country, is that of assuring a high rate of growth and minimum fluctuations. Our new defense requirements emphasize the importance of growth as an objective of public policy, since if we fail to grow, rising defense outlays will necessarily inhibit a rise in our living standards. What we have been looking for in these hearings is some system of standards which can be widely and uniformly understood, against which to appraise the various nondefense programs of the Federal Government. We would hope that such appraisals would permit us to finance at least a substantial part of any necessary increase in defense outlays by reduction or elimination of other spending programs, if at a high level of economic activity our tax revenues do not appear to be adequate.

At the same time, we want to be sure that any such reductions do not impair our economic potentials. During our first panel session, one of the participants suggested that this type of appraisal might convince us of the need of expanding a number of nondefense programs.

Apparently some of you gentlemen would agree.

Before we turn to your positive proposals, can you suggest some Federal programs which do not meet your test of contributing significantly to increases in productivity and growth and which, therefore, might be reduced to offset any expansion of programs which make a large contribution in this respect?

In other words, I do not suppose you are urging spending more for growth-stimulating programs without some reduction in growth-detracting programs?

Professor Domar, would you lead off?

Mr. DOMAR. Mr. Chairman, if you take a look at Federal expenditures in recent years, you will find that a very high proportion is concerned either with present defense or past wars or have something to do with defense problems. This is true even of international assistance.

On the other hand, if you try to isolate the expenditures that are not connected with past, or future wars, you will find that such Federal expenditures are very small indeed. And of the amount that is left, something like \$4 million was spent in 1956 on agricultural support programs.

I do not think one can argue that the agricultural support programs, whatever their merits are, have much to do with growth or that they help growth. If you exclude them, you find that outside of defense expenditures in the broad sense, and the agricultural support program, in 1956 Federal expenditures amounted to something like \$7 billion, and I suspect it would not be very easy to make any large cuts there.

I think the problem is not so much how to cut existing Federal expenditure, but rather to indicate the fields where Federal expenditures should be expanded. You might be able to cut a bit here and a bit there. You could, of course, cut a good deal from agricultural support programs if you find it necessary. But outside of that, I doubt that you will find any room for large cuts.

Representative MILLS. Professor Duesenberry.

Mr. DUSENBERRY. Well, I think I would agree with Professor Domar in general. But there are a couple of points that I want to mention. I think, first of all, that we could cut agricultural support programs. We could also possibly cut some of the veterans' transfer

programs. These, of course, would not be savings of real resources, but would be reductions in the money expenditures of the Government and cuts in consumption on the part of some of the people who lost out by them.

It would, over a long period, be possible in the case of agriculture to increase the rate at which the people move out of agricultural, and, therefore, increase our labor resources in fields where labor is more productive.

Now, as I indicated in my paper, I think it is possible to cut some of our water resources programs, because Mr. Eckstein's study seems to show that we are engaging in programs there which yield very low rates of return. And those resources could be better devoted to something else.

Now a peculiar thing right now, though, is that in the current economic situation, if the defense budget is increased only by the amounts which are now being discussed—and I have not the faintest idea whether those are underestimates or not—and if we could take the administration's statements at their words, then we would be in a position where we would probably be faced with a choice in the first half of 1956 between increasing Government expenditures and cutting taxes. So that it seems to me that in the short-term picture, our problem is going to be one of deciding whether we would like to put additional resources into Government expenditure programs, or whether we would like to cut taxes and put them primarily in private consumption.

But I do not think, as Mr. Domar said, that there are any very large amounts of Government programs other than transfer payments which can be cut without impeding growth rates except in the case of water resources.

Representative MILLS. I am thinking in terms of the long-range prospects as well as the short range.

Mr. DUSENBERRY. Well, even in the long term, I think we will continue to be faced with cutting taxes as the income rises, as Mr. Hagedorn suggested. There is not any particular reason why we should spend all that comes in as our tax resources increase. We should make a sensible choice as to whether we can do better with those resources in private uses or in public uses. But we will have the continuing choice of either cutting taxes or increasing Government expenditures. And I think in the long-term view, there are a lot of programs which ought to be expanded, and relatively few programs of a nontransfer payment type, which ought to be contracted.

Also, no doubt, specific economies can be made in any program. There is no program that is perfectly efficient. And the individual items within each program can undoubtedly be shaved. But that is a matter for the detailed administration.

Representative MILLS. Mr. Hagedorn.

Mr. HAGEDORN. Well, on the long-range problem, I think the point that I want to emphasize again, as the difficulty to be dealt with in the future, is the fight against the tendency for Government expenditures to increase as economic growth occurs and thereby dissipate an important part of the benefits which might occur from the economic growth.

That is the tendency to be resisted.

Now, on the short-term problem of just where cuts might be sought, the NAM Government finance department has prepared a pamphlet

discussing areas of possible cuts in the Federal expenditures. I believe that has been sent to all you gentlemen in Congress. I have a copy here, and I think there are some other copies in the room that can be given to you at this time. It discusses programs which have been proposed but should not be inaugurated, that is, programs which are not yet part of the Federal budget but which have been proposed and which we think should be resisted. Federal spending for school construction, for example, and for planning higher education. Federal aid to unemployment areas, we think, is a program which should not be inaugurated.

Representative MILLS. Pardon me. When were these conclusions reached? Before Sputnik, or after Sputnik?

Mr. HAGEDORN. They do not deal at all with military expenditures. I believe they were reached before Sputnik.

Representative MILLS. I thought the second suggestion you made there might well get into the field of defense in the light of the President's speech in Oklahoma City recently.

Mr. HAGEDORN. Proposals for aid to school construction?

Representative MILLS. No; higher education.

Did you not mention something about that?

Mr. HAGEDORN. Yes; that is right, sir. Well, sir, I am not an expert in the field of education. I think we have some others here. But it does seem to me the problem is much more complex than simply the need for spending more money in that area. We have to appraise our whole program of education, with emphasis on pure science as compared with applied science, and other basic problems like that. The question then, of how much money need be spent, can only be decided after those more basic problems have been dealt with.

Representative MILLS. Are these considerations largely with respect to either deterring or permitting or promoting economic growth and stability in the future? Or are they based upon other considerations?

Mr. HAGEDORN. They are based upon the principle that where there is no clear tendency to promote economic growth, why, then Government expenditures must be regarded as a deterrent to economic growth.

Representative MILLS. I just wonder whether or not retrenching or failing to advance in the private sectors, or certainly through the local levels of government, for purposes of education does not offer us perhaps the greatest opportunity for long-run economic growth.

Mr. HAGEDORN. You mean Federal expenditures?

Representative MILLS. Not necessarily Federal, but any expenditure, whether it be in the private sector or whether it be in the local level of government or even in the Federal level of government. I wonder if such an expenditure does not really give us more economic growth perhaps in the long run than many other expenditures that we do not now frown upon.

Mr. HAGEDORN. I think that the field of education in general does offer us one of our greatest opportunities for economic growth.

Representative MILLS. It is your thought, however, that those expenditures should not be made by the Federal Government, but rather by local governments, and the private sector?

Mr. HAGEDORN. That is right. Do you want me to go on summarizing the proposals here?

Representative MILLS. Yes, if you have them.

Mr. HAGEDORN. Then there are a series of programs in which the Federal Government is now engaged in which we would suggest the possibility of terminating that Federal participation.

Vocational education, for example; new veterans' hospital construction; experiment stations in agriculture, for example; urban planning and urban renewal in the field of public improvement.

Representative MILLS. Well, is not this business of agricultural research, if properly handled, the very thing that we are looking to, in part at least, for the finding of solutions of the problems that exist in agriculture?

If we began to reduce in the field of agricultural research, and particularly research into consumption of agricultural products, are we not emphasizing the very difference that exists today between agriculture and industry, in that industry is presently spending so much more for research and consumption of industrial products compared to agriculture?

And should not either Government or agriculture itself, acting in its private capacity, spend more money for research?

Mr. HAGEDORN. I think we would take the view that agriculture should itself undertake those expenditures.

Representative MILLS. Rather than Government?

Mr. HAGEDORN. That is right.

Representative MILLS. I see.

Mr. HAGEDORN. Then there were a series of programs where we would suggest a restriction of the scope and cost of the program. Under the head of "Welfare" we would restrict public assistance, for example. Under "Housing," the FNMA, we would propose that there be some restriction there. In slum clearance and public works, we would suggest the same thing.

I cannot really do justice to this list of proposals, sir. I hope that you will look at our detailed description of them.

Representative MILLS. It had not previously come to my attention. But I appreciate your bringing it up. I will look it over.

Mr. Ruttenberg.

Mr. RUTTENBERG. I would like to suggest that there may be three areas in which Federal Government expenditures might be reduced or might be made more efficient and may relate to the big area that constitutes the largest bulk of total Federal expenditures.

I think roughly 80 or 85 percent of Government expenditures, the Federal Government, are in the area of defense or defense-related spending.

Now, in the main the defense and the defense-related involve three big areas—defense itself, interest on the Federal debt—the cost of past and future wars—and veterans' activities.

I would like to suggest that in terms of interest on the Federal debt we could save substantially if we reverse the kind of monetary policy that this Government has been following, because I think an examination of the figures really indicate a substantial increase in the amount of Federal Government outlays as the result of the rise in interest rates.

Second, I think in the area of defense it is quite possible and feasible to get considerably more defense for the amount of money we are now spending. Obviously we have to meet all our defense needs. But I think a careful examination of the efficiency in operation of the Defense

Department could turn up a fair amount of money that could be used to meet the new threat which occurs as a result of Sputnik and the Russian developments in the scientific area.

I would like to throw that out as a possibility that ought to be very carefully examined. I just give you one example of research and development costs. It seems to me much research and development expenditures by the Defense Department result in the development of products for the private corporations for their private needs and little results in certain areas of actual defense and scientific developments for the defense establishments. I throw this out as a possibility that one ought to look into.

In the field of veterans' activities, I think if we reoriented our approach to veterans and veterans' aid and assistance and hospitalization and medical services and began to think in terms of extending the concept of education to the economy as a whole and extend the concept of the hospital care of veterans to the people who really need hospital care by extending the Hill-Burton kind of approach to hospital construction, all of this would be to the good in the long run and may well even save the Federal Government money.

When we get right down to it, the kind of direct Government expenditures other than in defense and defense-related areas are very limited and restricted. Therefore, the major areas of activity, it seems to me, if money is to be saved, should be in looking carefully at the defense, the interest rate and the veterans areas which are the three big areas of defense and defense related spending, while we assure the maintenance of adequate defense.

Representative MILLS. Mr. Vandermeulen.

Mr. VANDERMEULEN. Mr. Chairman, with respect to the specific programs I find myself in general agreement with Professors Domar and Duesenberry. And, of course, agriculture has been the target for the last 3 days. And I will not say any more about that.

Representative MILLS. You please me when you do not speak of it.

Mr. VANDERMEULEN. I have listened to it as much as you have, sitting in the back of the room. And with respect to many of the other transfers, the question as to whether they impede growth would be difficult to say. It is quite possible that it is transferring funds from one set of persons to another set of persons without any necessary effect on growth. I have one point I would like to make in this connection, since you have indicated, Mr. Chairman, that long-range considerations are primarily here.

The point I would like to make is one that you have anticipated yourself. And that is this. That much of the discussion on problems of this sort in wartime center around the choice of guns or butter. And the argument that is usually made is that if we have one, we have to give up the other.

Well, I think, as I read the speeches of Soviet leaders, that they believe they have found a third way. That third way is that if sufficient resources are devoted now to research and education, it may be possible in the future to have both the guns and the butter. And so it seemed to me with respect to the Federal programs that we might very well do something of the same sort, and that insofar as we were making fairly large expenditures now for increases in productivity, we might find in later years that the burden of Federal expenditures relative to gross

national product would be considerably reduced simply by the growth of the gross national product itself.

Representative MILLS. Professor Wright?

Mr. WRIGHT. We are really riding two horses here. One is the question of overall Government expenditure and its effect on the economy, and the other is particular projects. I am afraid that I am very much opposed to the idea of Federal subsidy to education.

I feel it implies a serious danger to freedom of thought in the United States. I hold that the basic case for competition lies in the fact that where you have many different independent units, there is a chance for all points of view to be heard.

Now, if the Federal Government takes over and begins more and more to subsidize education throughout the country, then inevitably it will gradually come to pass that the people who are doing the subsidizing will be having a great deal to say in what should be taught. People say that will not happen. But it has happened in every other case that I know of.

Now, even if we decide that there is need for more Government expenditure on education—and I think that is probably true—nobody else in this hearing, with one possible exception, seems to realize that there are two sets of governments in United States, namely, the Federal Government, and the State governments.

It was part of the design of our forbears that there would be many States, and that by having that pluralism, there would be a variety. It was never the intention of the constitutionalists to create a uniform single policy which would apply to everybody regardless.

Therefore, where you have many States operating independently, if a fellow is in trouble with the policies of the government of, let us say, Rhode Island, then he can move to Minnesota.

There are different authorities, different points of view, and that sort of thing.

In this connection, this whole case for pluralism is forgotten too much now. Take sputnik. We hear a tremendous amount of how much money has been spent on research in Russia. But what nobody seems to talk about is the fact that the basic thinking for sputnik was not done in Russia at all, but in Cambridge University in England.

As I understand it, the scientist who did the basic work on this worked at a laboratory in Cambridge for a number of years under very free surroundings and then went back to Russia. But suppose there had not been any place for this man to go and do independent thinking and he had to do his thinking in Russia. It is true, I understand, that quite recently the Russian Government has begun to let its physicists loose almost entirely. But this is a recent development. Formerly they were very closely watched and had to be most cautious because there are many conflicts between Marxist theory and the basic ideas of the modern physical science which is used in these gadgets. It is only the emergency that is making the Russians relax a bit.

Now, suppose 10 years, or whenever it was that this man was in Cambridge, he had had to stay in Russia. Would he have been able to work out his basic ideas?

I think this notion of transfer and variety and multiple authority is absolutely basic to the whole notion of scientific progress. And, therefore, while I think the Federal Government can subsidize science, particularly in connection with defense and possibly in scholarships,

I would hate to see the whole business so heavily subsidized and centralized that in effect you either work for the Government or not at all. And so I find myself rather considerably out of step here, I feel, on this point.

Now, further, in the present state of the business cycle and foreign affairs, I do not know how anybody can make any blunt statement about most of these projects.

We do not know whether we are going up or going down, as far as the business cycle is concerned at the moment. I do not think we are going down very far, as I stated in my first statement. But if the economy does surprise us by taking a deep dip, then you have a much more generous attitude toward some of these projects than you would have before.

On the other hand, if it goes up, as I personally think it will, then we are confronted with the choice of rearming or going into a lot of welfare expenditure. You can't do both without inflation.

I would like to call the committee's attention in this connection to an article in the *Harvard Business Review*, the last issue, by Elliot Janeway on retooling, in which he makes a number of pretty hair-raising predictions as to the general trend of American economic life. I found it, myself, not only hair raising but rather convincing. Under those circumstances, if we are going to have a lot of terrific inflationary pressures because of armament emergency, it seemed to me a poor time for expanding social services on any large scale. And furthermore, I am not too much sold on the notion of the Federal expansion of these services, particularly of education, because of the tendency toward centralized power which it implies.

Representative MILLS. Thank you.

Mr. Curtis?

Representative CURTIS. I was very much interested in the breakdown that occurs in some of the papers between types of Federal expenditures. I am now emphasizing what the basic topic of the papers was—the Federal expenditures as they affect growth.

The breakdown of the various types in that some are neutral as far as growth is concerned, some are possibly impeding, and some are encouraging growth.

And I believe it was Mr. Hagedorn that developed another thought in that line of how growth affects Federal expenditures. In other words, that is on page 297.

I think that there is some thought given to that, but no particular breakdown of how growth of our economy affects Federal expenditures of various types. But the conclusion I believe you draw, Mr. Hagedorn, is that growth actually would tend to decrease overall Federal expenditures. And you say there a comparatively small part of total expenditures are for needs which will increase along with growth.

On the other hand I think it was Mr. Duesenberry, just a few pages before that, who suggests or indicates—and this seems to have been the general views of most of the panelists—that Government expenditures will increase, even if there is no increase of standard of Government services provided.

Apparently a conflict exists. Mr. Hagedorn thinks a growth will actually phase out Federal expenditures, and Mr. Duesenberry is

suggesting that growth will increase Federal expenditures. I wonder if there could be some discussion on that?

Or have I misstated your points of view.

Mr. Duesenberry?

Mr. DUSENBERRY. I think maybe there is not as much of a conflict as there appears to be. Part of Mr. Hagedorn's suggestion is that maybe, as the economy gets wealthier generally, that there will be less need for some public assistance and transfer payments of that sort.

What I was suggesting was that the cost of a given program will increase in absolute terms, absolute dollar terms, even at a constant general price level, for two reasons: (1), the population is increasing, so that there will be just more people to provide with education and any other service the Government provides. And (2), as Mr. Domar also suggested, there is a systematic tendency, I think, for the relative prices of the things which the Government buys in the nondefense area to rise.

Representative CURTIS. You mean we were able to maintain more stability?

Mr. DUSENBERRY. The thing is, as Mr. Domar suggested, that teachers do not seem to get any more productive in any measurable sense. But if incomes generally rise, then we will have to raise teachers' incomes to some degree. And that means that the cost of educating a child, the cost of having a teacher in a classroom, will increase in dollar terms, whereas, in other fields, let us say, the cost of making some physical commodity where productivity increases faster, you can pay higher wages and not have any higher costs.

So, for that reason, a given program will cost you more dollars even at a constant general price level.

This is true of anything which involves a great deal of services or a great deal of construction.

Representative CURTIS. But now, let us take the balance, then. I can see your point. If Mr. Hagedorn's point is well taken—and I happen to think it is—that as growth increases we would phase out some of these programs, certainly the ones based on need, would the overall expenditures of the Federal Government increase with growth?

Mr. DUSENBERRY. Let me say first that I didn't make this observation only with respect to Federal expenditures.

I am really not competent to discuss the State and local problems. But of course, a very large part of the total nondefense expenditures by all governments is made by State and local governments in the education field. For instance, the great bulk of the expenditure is State and local.

It might be true that some Federal areas would contract because the burden of this relative price increase will fall most heavily, I think, on State and local governments.

Indeed, that is one of the reasons that we had so much trouble in the field of education, in the field of local taxation just in the last few years. The reason is that the costs of medical services, and the cost of education, for a given quality of education, have increased faster than the general price level.

Representative CURTIS. But theoretically if we grow, for instance, in medical treatment and science, for example, theoretically there would have to be fewer people who would have to come to the Gov-

ernment for assistance in medical treatment, housing, or any of these welfare areas.

Isn't that the point you are making, Mr. Hagedorn?

Mr. HAGEDORN. May I get into the discussion?

Representative CURTIS. Yes, sir.

Mr. HAGEDORN. Let me clarify really what I was trying to say here, Congressman.

I was not making a prediction that the actual event will be that.

Representative CURTIS. I know that.

Mr. HAGEDORN. What actually will occur depends on the basic philosophy with which this question is approached. If you approach it with the basic philosophy that as the country grows and we become more prosperous, then we can afford more in the way of Government services, it certainly will not go in the direction I have assumed here.

The second point of clarification is this:

I cannot pretend to have made any precise calculation as to just which items will increase with economic growth and which will decrease and where the net balance will be. My main point is that when you look at Federal expenditures, the greatest part of them seems to be the types of items which need not necessarily increase with economic growth and which, if the problem is approached with the philosophy I advocate, would actually decrease along with economic growth. As people become better able to take care of themselves, there is less need for these things.

Representative CURTIS. Let's take one which has been thrown quite a bit into the discussion—Federal aid to education.

The pressures for the Federal Government to go into education are primarily on a need basis. If prosperity and growth were to increase, theoretically, I suppose, the pressures for Federal Government to supply the scholarships and the assistance to colleges would tend to phase out.

Is that the theoretical argument?

Mr. HAGEDORN. That is the thought I had in mind; yes.

Representative CURTIS. In that instance, I think we all agree that the Federal expenditure for education is one that contributes to growth. It is not a neutral or an impeding one, if you follow me.

Mr. HAGEDORN. Yes, sir.

Representative CURTIS. Now, in the matter of some of these things such as social security, I suppose the judgment has been more or less that that was rather neutral as far as growth is concerned?

Am I wrong in that?

Would someone say that social security tends to promote growth? Or is it neutral? Or does it impede?

Mr. HAGEDORN. I would say, sir, that insofar as it takes funds from the private economy which might be used to support growth by the persons from whom they are taken, it is a deterrent to growth.

Its justification is not its effect on growth. Its justification is that there is a need for this program, and we do it.

Representative CURTIS. Yes.

But I am not trying to get into the merits of the programs at all.

I thought the papers were directed to the economic effect as best we could judge them of these various expenditures, as to whether or

not they are neutral, or whether they promote, or whether they tend to impede growth.

And for other reasons entirely, you could favor a program that might impede growth. At least let's know, as best we can, what the economic effect of a particular Federal expenditure might be. And then I have taken the next thesis which, to me, is very intriguing: That as you grow, what effect does growth have upon Federal expenditures?

Does it tend to increase them, as I conclude Mr. Duesenberry is suggesting? Or does it tend to phase them out?

Then, if it does, let's again break it down. Does it tend to phase-out programs that have a neutral effect on growth, or does it tend to phase out those that impede, or those that encourage? Or isn't there any pattern?

That is the area I am trying to examine right now.

Mr. DUSENBERRY. I think that a relatively small part of our expenditures are of the type which arise because people are poor. Other than social security, that is.

We have a certain number of welfare or aid programs: aid to the blind, aid to the generally poor, aid to the old, and so on.

Representative CURTIS. Probably housing?

Mr. DUSENBERRY. That is right.

The great bulk of the total of Government expenditures in non-defense categories involves things like highways and all kinds of urban facilities such as education. And the demand for these is not dependent upon the poverty of people. Indeed, to some extent it depends on their wealth. The demand for highways does not arise because people are poor; it arises because they are so rich that they can have all those cars.

Those are fields in which construction is involved. And maybe there will be a revolution in construction. I hope so.

But what we know is that the relative price of construction has been going up for years and years. Productivity increase has been very slow. And there is not anything on the immediate horizon anyway that indicates that the relative price of construction is not, looking at it from one decade to the next, going to increase.

Also, I will agree that there may be certain programs that might be phased out with an increase in income, particularly those which involve aid to persons whose incomes are very low.

Representative CURTIS. Now, that would tend to be a neutral, if I understand what has been presented today. Those that tend to simply transfer payments tend to be neutral, do they not, on growth?

Mr. DUSENBERRY. They are neutral in the direct sense, perhaps. But, of course, it is true that insofar as you take income away from people who might put it to some other use than that could have an impeding effect.

Now, this depends on what would be done if you didn't have those expenditures.

Representative CURTIS. Now, let's take another illustration.

Maybe we can get it through this way. I have always been intrigued by this idea of those expenditures that have a positive effect on economic growth, health being one of those listed.

I can see it as far as an able-bodied person is concerned, but a great deal of that has been going toward increasing the longevity of our-

people over 65 years of age. Now they live to 75 years of age. Where is the economic growth there?

Many of those people are out of the labor market. I have had many of them say to me, "Why are we being kept alive longer?" particularly when they have got a financial problem. But there is an illustration.

I am trying to talk economics on the thing. Is all of that really growth? And is that kind of thing really growth? I am satisfied it is one of our biggest expenditures for our aged population. Those people are out of the labor markets, and that seems to be a neutral, with possible overtones of impeding.

Now, if we would start using our aged population, then, yes, we might say it could be toward growth. Do you follow the line of reasoning I am trying to use on this?

Mr. DUSENBERRY. I quite agree that if the medical expenditures are mostly for old people, and if the older people are not in the labor force, then it is not doing anything for growth. I do think it is possible, and I think it is probably even the case, that the average working life of the male in nonagricultural fields may have already increased. But I think certainly we are pursuing a backwards policy in which, on the one hand, we try to get people to live longer and stay healthy longer, and at the same time engage in policies tending to keep them out of the work force.

I know in Massachusetts we have had attempts to reduce the age at which pensions are given rather than attempt to arrange employment for older people, retraining them, or whatever is necessary to keep them in the labor force for a longer time.

Certainly these two things ought to be geared together, rather than working at cross purposes.

Mr. RUTTENBERG. Let me just make a comment or two, if I might, and then I will give way to Dr. Wright.

I am intrigued by this philosophy of yours, Mr. Curtis. In terms of medical research and expenditures for medical research, if we could do something about the two great killers in American life—cancer and heart disease—we could go a long way toward promoting more active participation by people.

Obviously this will extend the age to which people will live. But it will also enable many younger people who now die at early ages to be productive in American economy. And in that connection I would mention Enrico Fermi, who, if alive today, might be able to make a fundamental contribution to all fields.

Now, just because we do not properly utilize our older population, there is no reason to say that this has an impeding effect upon the economy. What we ought to do is get in there and utilize the older population more effectively.

Representative CURTIS. I want to be sure that I am not pinned with a particular philosophy here, because I am trying to draw these things out solely in this economic concept of growth.

There are so many other factors before you reach your final judgment as to what you would do that you must consider. Just because I am pulling this out and looking at it does not mean I would advocate anything. But in order to examine it, that is what I have to do.

Mr. RUTTENBERG. Let me make a point that Professor Duesenberry referred to.

That is the question of social security. Whether this is neutral or impeding or expanding, I would venture the guess that we now have some 6 million people on public assistance in the United States, which is to say the Federal grants-in-aid program. We have, if my memory serves me right, about a million dependent children in the Federal grants-in-aid program.

Now, if we really expanded Government activities and efforts in the social-security field so that in the future all the people are covered by old-age and survivors' benefits, this would reduce immediately the Federal expenditures in the area of public assistance.

This would have, it seems to me, a stimulating effect on the economy, because you reduce expenditures for public assistance, and you substitute for that a coverage program under OASI. I would say the same thing about aid to dependent children or aid to the blind if we really move along toward those programs.

I think this ought to be reemphasized: As our economy grows, I agree with the gentlemen at the other end of the table that expenditures will tend to rise, too. There is no question, it seems to me, that Federal expenditures for teachers and schools and scholarship programs, et cetera—together with hospital services—will increase. But this does not necessarily mean that we are going to have to raise taxes or tax rates in order to raise the money. With growth goes an expanded and increased Federal revenue to pay for these costs.

Representative CURTIS. Professor Wright.

Mr. WRIGHT. I was down here a few months ago before the Senate Foreign Relations Committee. I said there that you could not order peace from the grocery store. That is to say, it was not a case of the more money spent, the more peace.

I do not think you can just order science from the grocery store either. It is not necessarily true that if you spend more money on science, you get more scientific discovery. A great deal depends on the type of people and the general surroundings.

So, what I am afraid of is that, if there is too much centralization of grants, actually the thing may backfire.

In other words, there is no necessary mechanical connection between the size of the Federal appropriation and the impetus to growth. If the Federal appropriation actually has the effect of over-centralizing scientific discovery, it would have a definite negative effect on growth.

I would like to mention another thing here. A great deal of the discussion implies that the rise in productivity is just a matter of discovery. But another aspect that has to be remembered is the social attitude toward change. Growth comes through change and causes change.

Now, if you set up rules of complete job security so that you are not allowed to make changes—for example, keeping firemen on diesel engines and not allowing spray painting—and if you hold to various other outmoded methods, then the Federal Government expenditure for discovery is not going to get anywhere.

The fact is that the problem of having economic growth is very closely bound up with the willingness of the work force to permit the adjustments which make growth possible.

Everything that is done in the way of discovery could be undone by sabotage for job security. Consequently, there are a lot more factors in here than just the appropriation.

Representative CURRIS. Thank you.

Doctor Domar.

Mr. DOMAR. I would first like to make a short statement about the immediate subject under discussion. Then I would like to come back to our general field.

Expenditures for public assistance, social security, aid to the blind and aid to dependent children are justified on humanitarian grounds. As we grow, people will have a higher standard of living, and will be able to take care of themselves better. As that growth takes place, it is also true that our standards as to what a person who comes under the program of public assistance ought to have will change. The same is true of housing.

As we become wealthier as a whole, we also get higher ideas about what kind of houses the American people want to live in. So, while I think there may be some hope that public assistance may become less important, we would be misleading ourselves if we put too much faith in this hope.

But, now, coming to the more fundamental issue we are discussing here, namely, the question of whether the Federal Government should actively participate in expenditures that promote growth—essentially education and research—I cannot help feeling a lack of realism in the statements by Mr. Hagedorn and Mr. Wright.

This may sound strange coming from a professor. But, on the other hand, I read Russian, and, therefore, I try to keep in touch with what goes on on the other side of the Iron Curtain. The problem appears to me in these terms: We are now engaged in a conflict with a great power, and this conflict is not going to last a year or 2 years or 5 years, but chances are that it will last for decades, if not generations, unless we have a hot war, which I hope does not happen.

The Russian population is about 15 percent above ours. Let us disregard that. The percentage of gifted people there, I imagine, is about as high as it is here. There is no reason to believe that they are less gifted or more gifted than we are. So, to my mind, the issue simply depends on which side is going to make better use of its resources. And the most valuable resource we have, of course, is the minds of the people.

If the Russians manage to make better use of the brains of their population, particularly of that part of the population which has high ability, then their chances of winning the cold war are very good. On the other hand, if we do that, then naturally the advantage will be on our side.

Last night I just finished the report on Soviet education issued by the United States Office of Education. I cannot help but be impressed with the great effort that is made there in the educational field.

The ratio of students to teachers is something like 17 in Russia and 27 here. And this is all in a country whose standard of living is probably about one-fourth or one-third of ours. So, relatively speaking, their educational effort must be very great indeed.

A couple of months ago perhaps one had to argue about whether something ought to be done about education. I think it was the appearance of the sputniks in the sky that brought the issue into clearer focus. But what is not yet clear is just who is going to make the increased expenditures. And here there is a tendency to pass the buck, namely, for the Federal Government to think that the State governments and local governments ought to do that, while the State and local governments cry out that they cannot. Now, whether they can or cannot is something that can be argued about. Perhaps they can. The issue is that they will not. It is not just a local problem of local schools; it is a national problem.

One of the great difficulties is that the local government has a very hard time raising revenue because the sources that it can tax are limited.

Take the city of Baltimore, for example. The city government just suggested a tax on advertising. It passed that measure about 2 days ago. There was a great outcry. It was said that that would inhibit Baltimore industry and that industry would move out.

Whether it would move out or not I do not know. But the outcry certainly has an effect.

The city tried to increase a business tax on manufacturing. There was immediately an outcry that manufacturing would move out into Baltimore County. Some business firms made statements to that effect.

The city of Baltimore may be rich enough to support better schools. The fact is that it does not. If we sit and wait for another 20 years and argue whether the Federal Government should or should not participate in education, we will just waste 20 years. If, 20 years from now, we have better schools, we cannot invite people who will be 30 years old then to come back and take elementary education once again just because we have better schools.

Representative CURTIS. I am going to turn the matter back to the chairman. Of course, I do not want any misconception from what I am doing here. These papers today are on the subject of Federal Expenditures effect on economic growth. And, of course, we on this committee have been trying to dissect this thing. And naturally there are all sorts of implications other than growth.

The importance of growth in a particular thing may be really incidental to the humanitarian aspect, but all I have been trying to do is examine these things to see whether a particular program is one that promotes growth, or whether it is one that is neutral, or might be a deterrent. Then, also I have been trying to see whether or not if growth occurs, what happens to these programs too. I cannot resist one comment, though, on the question of increased productivity in education.

I suggest that there are two things right now that are probably going to increase productivity in education in this country tremendously. One of them is utilizing the educational plant 12 months out of the year instead of 9 months out of the year, which is in the cards. We are not a rural economy any more and there is certainly no reason any more for keeping education on a 9-months-a-year basis.

Another comment I wish to make concerns a point that one of you mentioned in your paper. That is the impact of television on teach-

ing and the fact that some people have said that it is going to be as revolutionary in education as the invention of the moving type.

The strange thing to me is that the resistance to the innovation of television as a technique to a large degree is coming from the teaching profession, in the same way that resistance to automation at times has come from working union groups, not in the United States, but, say, in Europe. I mean that sincerely, Mr. Ruttenberg. I think that our unions in the United States have been very forward-looking on this. But it is intriguing to me to find in the educational profession the same type of resistance to a change that might actually out-mode their skills, or at least require them to develop skills that they have not developed. I must let you answer.

MR. DOMAR. Just a short answer: As far as using television in education is concerned, I think that what is required here is a period of experimentation to find out how it works.

It is our ideal of education, particularly on the elementary and secondary level, that a teacher works directly with the students. You could not increase the productivity in the true sense by doubling the class.

Now, whether you want to double the class or not is the real question. Do you want education in which instead of having 30 students in a room you have 60? If you want that, of course, that could be done.

Representative CURTIS. Well, turn it around. If you have an extremely able teacher who under the present techniques can only teach to a small group, by this device he can get his message in teaching across to many thousands. That, theoretically, can improve the quality of your product which is productivity.

MR. DOMAR. Excuse me. If, as the result of experimentation, we find that television works, so much the better. But I think it would be wrong to make our plans on the assumption that in the next 2, 3, or 5 years we can solve the educational problem by television.

Representative CURTIS. All that I am suggesting is that it seems like that there is almost a revolution in education through these two things that I have suggested, because I think they might be revolutionary.

MR. VANDERMEULEN. Could I make 1 or 2 comments?

Representative CURTIS. Yes.

MR. VANDERMEULEN. With respect to education at the college level, the shortage is not necessarily classrooms. The basic shortage is not necessarily classrooms, but the manpower involved. Now, with respect to the television question, suppose we approach it this way: Now, this committee might instead of having us appear in person have had a movie short made in which we presented our views and sent it on. But I think that the committee would have found such a procedure much less effective than the present procedure of having us here and having a question and answer session and when one of us says something to pin us down and say, "Well, now, just what do you mean by that?"

Much of the value of teaching, particularly at the college and graduate school level, as distinguished from the mere reading of textbooks, comes from that same kind of question and answer.

Unfortunately, you cannot get the answer from the television screen as yet. Now, the time may come when you can.

Representative CURTIS. I think you are misinterpreting the whole point. It isn't to eliminate the face-to-face contact anymore than the moving type eliminated the face-to-face instruction which was existing in the days of Socrates, and since the beginning of man, I suppose. But you have an additional technique that has its advantages.

Even a lecture does not replace the value that a printed page has over the lecture, because you can look back and refer to certain parts of it and weight it, which you cannot do with the spoken word. All I am saying is that you have got another technique that is a tremendous technique. I am not a professional educator, but I have listened to people who are in the field, and, at least, many of them feel that this is so revolutionary that they compare it to the invention of the movable type and think it is going to have a similar impact.

Now, maybe that is an exaggeration.

Mr. VANDERMEULEN. I think it is a useful adjunct. The point I was trying to make, and perhaps overemphasized, is simply that a very great deal of the teaching does consist of the question and answer, the give and take, of discussion. And that is the most expensive part, because, even in colleges and universities, you can have lecture sessions of, say, 1,000, but that is not so effective as the small group of 15 or 20, which is the more effective type of teaching.

Representative CURTIS. I hate to drag this out, but this is interesting to me. Look at how we are going ahead and trying to teach physics in high schools where we do not have enough physics teachers. They are going to the television device and taking some of the top physics teachers in the country and putting them on film, and through the use of television, are at least getting some of this high-class teaching of physics through this medium into high schools all over the country.

Representative MILLS. Senator Flanders, I am sure you realize that we appreciate very much your being with us this morning.

We want you to feel free to ask any questions that you may have.

Senator FLANDERS. Thank you, Mr. Chairman.

I have been interested in two lines of discussion here this morning. One is in relation to education.

I want to propose or to suggest this position: that the expenditure by the Government on extending the terms and practices in education does not lead to economic growth.

The present tendencies in education are away from learning and away from teaching and toward social adjustment. They need a complete revision if they are to tend toward economic growth in this country. I can just give you an example.

In my own State, I was interviewed by a young man, a teacher, as to whether he should take the 6-month hitch or the 2-year hitch in the Army. The school authorities were very anxious for him to take the 6-month hitch because of the shortage of teachers. I asked him what his preparation was. He had a master of arts from Boston University. I asked him what he was teaching, and he said automobile driving. I said what else. He said nothing else. Automobile driving. A master of arts under the modern socially directed education program was being sidetracked into that activity.

To my mind there is a tremendous waste of teachers in our present type of education. The education is directed toward social adjustment and not toward learning.

And the social adjustment is of a sort which requires the downgrading of the whole educational process to a level in which everyone can pass.

One of the finest things that has happened in the last few months is the announced decision of the University of Illinois, a State university, supported by public funds, that it will not hereafter take freshmen who are unprepared in the rudimentary elements of education. They have got to come prepared. And they do not now come prepared.

In other words, our school system has got to be revolutionized. And the providing of funds for school building does not touch the inherent situation.

There are, doubtless, places where the Government, or somebody, needs to help for the building. But meanwhile, this travesty on education goes on. I would like to read a letter which I just received yesterday.

It is from R. F. D. 1, East Corinth, Maine, and it is addressed to me.

I have just read in the Boston Herald, Thursday, November 14, a summary of your address at the Christian Education Conference. This note is simply my heartfelt thanks to you for continuing to speak out so cruelly and so plainly. After 10 years' absence in teaching in California high schools, I was drafted back into service here in Maine. One year was all I could stand as combination babysitter and policewoman. Yet I enjoy teaching. I am still comparatively young. I know that the schools need some of us deserters. Perhaps through such outspoken words as yours, the educational climate may be changed enough so that we can feel it is worthwhile to try once more.

So, Mr. Chairman, I set forth the proposition that any Federal expenditure in support of education which does not change its program and its direction, does not conduce to economic growth. And I would like to throw that proposition open to the panel.

Representative MILLS. Which of you panelists desires to begin the discussion?

Senator FLANDERS. I am calling for volunteers. I am not going to draft anybody.

Mr. DUSENBERRY. A 2-minute answer is, that I could not agree with you more, about the quality, especially of high-school education. But the second point is that changing it is not going to be cheap. It is going to involve more highly trained teachers, because in general, I think it is true that the quality of training required to teach mathematics or science is higher and takes longer than in the case of the social adjustment fields. And you have to compete with industry for the services of people trained in those fields.

So that it is not going to be cheap to change the program in that direction. But I could not agree more, that it should be changed in that direction.

Mr. VANDERMEULEN. I have a point.

I might say I agree very much with Professor Duesenberry about the necessity of a change. I think all those who have been teaching in college would be in agreement. I think the problem may be some-

what corrected in the future for this reason: that in the past, many colleges at least were in a difficult position with respect to enrollments. They had the feeling that if they maintained standards too high, and insisted upon too high qualifications of the high-school graduates that then they would find themselves with too few students.

Since the situation is now changing, and most colleges throughout the country can impose higher standards, that is going to be reflected back into the high schools, and I think the wishes of the college for a more rigorous education will be carried out to a much greater extent. Although I agree with you and Professor Duesenberry that it is not easy. And it may be very expensive.

Mr. WRIGHT. I would like to put in a small philosophic remark on this. It seems to me the decline in our educational standards—which I am in complete agreement with the Senator—is due to one basic spirit that runs through our whole civilization. That is the confusion of democracy with equality. Does democracy mean equality or a fair chance?

Now, the real fault in our educational system is not so much in our colleges. The colleges are being dragged down by the high schools and secondary schools, because there are fewer and fewer people that come qualified. I taught for many years in a State university, and we had a terrific problem of harmonizing the low-standards of those that came from the high schools with the relatively high standards of some of the prep-school boys that came down. You had to run two sessions of English, and that sort of thing.

And that is not going to be cured merely by increased appropriations in that State for secondary schools, either. The basic thing is this: we have a feeling that nobody's feelings must be hurt and that the desire to excel is immoral. And so it is argued that if you teach a boy to want to do well in school, and he does well and does better than others, that will hurt the feeling of some other boy who has also been taught that he should do well and he can not do that well.

Senator FLANDERS. Interfere with his social adjustment.

Mr. WRIGHT. So this whole business of holding the smart man down in order to take care of the dumbbell is one of the most important items.

And the reason that they hate mathematics so is because that is one of the subjects you cannot fudge on. I mean one can add or one cannot add. There is constant pressure to drop mathematics from the curriculum—in our scientific age—and substitute other subjects, say logic! If in a year of logic as it will be taught, they learn one syllogism or, rather, what one is logic they will be doing well.

But of course that is something that could be kept fuzzy so nobody's feelings could be hurt. But mathematics is precise.

Senator FLANDERS. I find at least some sympathy with my proposition in the panel.

Mr. DOMAR. I could not agree with Senator Flanders more as far as the deficiencies of our education are concerned. On the other hand one has to ask: Now what can the Federal Government do and what should it not do?

I think on the whole it would be bad if the Federal Government should pass a bill allocating funds to education and at the same time specifying how education should be conducted.

I think that if conditions are to be laid down by the Federal Government, they should be of a more or less formal nature, such as that students should attend school not less than so many days a year or teachers should have degrees of no less than a bachelor's or master's as the case may be.

On the other hand, desirable as this improvement is—and I am sympathizing with you, Senator Flanders, wholeheartedly—I think this change is beginning already and will continue further by the pressure of public opinion.

You would not want, however, to have the Federal Government dictate to all school boards whether they should run a progressive school, so-called, whether they should teach social adjustment or not.

I am in entire agreement as far as the results go. But I do not think that the Federal Government should do that by appropriating money under those conditions.

Senator FLANDERS. The suggestion has been made to me that the Government might have final examinations for the secondary schools the passing of which would be a requirement for future employment in the Government. What would you think about that? It is one that has come to me in correspondence and I want to know whether you want me to get back of that idea or not.

Mr. VANDERMEULEN. No, I do not. I want to say this: I went to a school in New York State, and New York State had the regents statewide examination.

We reached the state where certain topics were indicated as desirable to be taught. Well, one of the unfortunate things that tends to happen is that just those topics were taught. And the courses tend to become the drill for the passing of a specific type of examination. And I think it was very undesirable and I would hate to see that extended.

Senator FLANDERS. Well I have lost all sympathy now, Mr. Chairman.

Mr. RUTTENBERG. Could I add a word, Senator Flanders? Could I add a word to your first comment? Obviously your second statement, I could not agree with more fully. It should not have serious considerations, but I would like to indicate a slight dissent from what has been said here critically about the so-called approach of the last decade or two toward progressive education. I think it is true—and I agree fully with what has been said—that the tendencies in the primary and secondary schools toward social adjustments have tended to offset the kind of education, let us say, that I had at the secondary school level, where, as a kid 25 years ago, I had to take mathematics. I had to take a course in chemistry. I had to take a course in trigonometry and plane geometry whether I liked it or not.

Now, 25 years ago, that was all they had. The tendency seems to have been, as Dr. Wright has said, a movement away from this kind of teaching to the social adjustment of driver training, of arts and dramatics, and so forth, and music.

I think we have moved from one extreme to the other. But I would hope that the emphasis would not be completely back to the fundamental education as we knew it 20 or 25 years ago when I was in school. And possibly the rest of you who may be older, knew it years before that.

But I hope that we can strike a balance, and that we do not overlook the necessity of adjustment to a complicated world in which children must adjust to very fundamental changes in American life, and where if they do not learn to drive an automobile, we ourselves may get killed by an accident on the highway.

So I would advance the idea that we need a balance between these two. I would hope we emphasize more and more the so-called fundamental education, without sacrificing social adjustments. And this means, obviously, more and not less expenditures at all levels, Federal, State, and local, for education.

Senator FLANDERS. May I say that I completely approve of this notion of balance.

As I see it, there are three general groups; one is the bright student. At the other extreme is the student who, being subject to our child-labor laws is just waiting in high school and has to be taken care of, amused and interested and kept off the streets until the laws permit him to work. And then in between is the body of us common everyday folks who want to be prepared for the enjoyment of the fine things of life and to play our part as citizens.

And I certainly should not be in favor of sacrificing the whole of the student body for the sake of the bright ones who can take extremes of education that others cannot. I might just say that I graduated from the high-school class of 1896, and that I had 4 years of Latin, 3 years of Greek, mathematics up to the use of the trigonometry tables, 1 year of French, thorough courses in English literature, and in general and American history.

Now, nobody thought they were being put upon, because everybody was doing it, so that was no sense of being cruelly treated. That was the way it was done. And everybody accepted it.

Dr. Wright?

Mr. WRIGHT. I think there are two problems here. One is the problem of the curriculum and the other is the problem of grading. As far as I am concerned, the problem of grading is at least as important as the problem of the curriculum.

It has become quite fashionable to grade "on the curve." That is to say, you give an examination and you draw a frequency distribution of how they have done. And then you say everybody that is above a certain point on the curve passes no matter how little he has learned.

As far as social adjustment goes, of course, we have to have social adjustment. But one of the things we ought to be trained to adjust to is the existence of inequality of aptitude.

It has always been perfectly amazing to me that we teachers who more than any other group are constantly brought up against the fact of the inequality of the human brain, are the ones that go out and yell the most about everybody being equal.

They certainly are not.

Senator FLANDERS. Let me get back, Mr. Chairman. I want to get back to the Declaration of Independence, which says that "all men are created free and equal." Now equality in the sight of God and equality before the law are both there. And they are eternal. Or should be.

Now whatever else there may be as to the nature of differences between people, there are differences. And we have to recognize them. But those two types of equality exist.

Mr. WRIGHT. Right. I hope that Thomas Jefferson has been vindicated to some extent.

Mr. HAGEDORN. Senator Flanders, if I may get into this? I have no particular competence in this field, not being an educator.

Senator FLANDERS. Have you got any children?

Mr. HAGEDORN. I was about to say, I have three children of school age. So my knowledge of this problem derives from that and from being a resident of a local school district too, which has many problems.

When my 8-year-old boy brings home his report card, it is a rather long and impressive document.

Senator FLANDERS. Can you understand it?

Mr. HAGEDORN. I read it once, sir, and read it with some pleasure, because I thought I understood it. And I found he was well adjusted socially. He participated in all the school's activities and a long list of qualifications like that. I was somewhat troubled on the second reading to find that he was not doing too well in reading and some of the less important items in the school's activities.

Senator FLANDERS. How did you find out from the report card?

Mr. HAGEDORN. I had to look very carefully, sir.

Another point I want to bring up, having no special competence in this field of education: As I said, I am a resident of a local school district whose budget for school expenditures comes up for consideration in May of every year, and the budget has to be passed by a majority of the residents of that district—that is, it is passed in a meeting of the citizens. And for a month before and a month after the date of the annual budget meeting there is nothing else that is talked about in our community. And every item is scrutinized very carefully.

Now, we, of course, are interested in good education for our children, so we weigh that side of it for each item in the budget. We also consider the other side of it—what it is costing us and what we as individuals could have done with that money.

I am sure every member of my community has a ratio by which we can convert each thousand dollars in the budget into the number of cents he will have to pay of that thousand dollars.

My point here has a bearing on the discussion earlier of the difficulties of local areas in raising funds for education.

I think it is merely a case that those difficulties are more apparent and clearer to everybody in the local areas than they are when the Federal Government raises funds.

In our area we make that nice balance. I was talking, I think, before you came into the room, Senator, about the point that we have to make a balance in each case between the benefits and the costs of each program. And we have to look at both sides of the scale.

Now, in our local community, discussing the school budget, we have both sides of that before us very clearly at every moment.

Now, we do not always make the right decision. At least, from my point of view, I have disagreed with many of the decisions that were

made. But I cannot say that the whole problem was not examined very clearly on both sides by all our citizens.

And I think the difficulty of raising funds in the local areas is a reflection of that fact that everybody does look at both sides of it; whereas the apparent ease of raising funds for education at the Federal level is a reflection of the fact that that balance is not so clear and cannot be so neatly made.

Senator FLANDERS. Thank you.

Now, Mr. Chairman, I would like to pass on to another subject. And I would like to refer to Professor Vandermeulen's paper.

On the top of your third page there is this statement. And you refer to the same principle once or twice further:

"So that we may know how total expenditures and total resources are being divided among consumption, both private and collective, capital formation, both private and public, and increases in productivity by both sectors."

I would like to inquire from you whether you do not feel that there is a vital connection between capital formation and increases in productivity? Can you make a sharp distinction there?

Mr. VANDERMEULEN. Yes.

I agree that a sharp distinction probably cannot be made. What I had in mind was something of this sort: that capital formation, I would say, is the use of existing resources and existing techniques to add today to the physical plant.

Senator FLANDERS. Yes.

Mr. VANDERMEULEN. When I was speaking of expenditures to increased productivity, I meant more particularly this sort of thing: expenditures on research and education which would make it possible to get greater output from a given amount of inputs.

In other words, productivity of labor rises by 10 percent both because they are better trained and because they have better tools to work with. So I was thinking of the scientific and technological change when I talked about increases in productivity.

Senator FLANDERS. Thank you for your explanation.

I would like now to turn to Professor Wright. And he starts off this two-page document that I have in my hand with a little jingle.

Did you write that yourself, sir?

Mr. WRIGHT. I edited the book, but Prof. Kenneth Boulding, of the University of Michigan, wrote the jingle.

Senator FLANDERS. I am going to read it so we may all have the benefit of it. It doesn't run very smoothly in meter, so its rhyme is perfect.

We all, or nearly all, consent
If wages rise by 10 percent
It puts a choice before the Nation
Of unemployment or inflation.

I note, sir, that you spoke of the factual basis of this little jingle to the effect that with an average rate of growth of, say, 2½ percent a year, an overall annual increase in money wages of 10 percent per year cannot possibly be absorbed without 1 of 2 things—inflation or unemployment.

This, Mr. Chairman, I hope very briefly, on a collateral question which is not directly toward the subject which we are both supposed

to consider. I do not believe Mr. Wright's approach is directly toward the subject which we are to consider.

Their relation between the Government expenditures and increased productivity is the subject I understand. Before this committee and the Joint Committee I made the proposal the other day that perhaps both or all 3 of the wage earners, the employers, and the general public, should accept this principle that achieved increases in productivity should be divided 3 ways. One in increased wages; one in increased profit for the sake of carrying on further increases in productivity; and one in lowered prices.

And I made the suggestion that the wage earner would get benefit from all three of those. He gets obviously a benefit from increased wages. As a consumer he gets benefit from decreased prices. And as an employer, he gets benefit from the plowing back of profits for another round of capital expenditures and increased productivity.

Now, I do not know, Mr. Chairman, how to implement that by legislation. I can only suggest that the thought should be expressed, should be criticized, should be supported, and that there should be general public discussion of it to see if some degree of interest and finally of perhaps some degree of unanimity can be arrived at as being an intelligent principle on which to operate in view of the difficulties that we have with our present distribution of increased production.

MR. RUTTENBERG. I would like to comment on that if I might, Senator Flanders.

I think the general position which you state of the sharing of productivity advances, or the sharing of reduced costs and improved efficiency between the wage earner and the consumer in the corporation, is a good sound and effective principle and ought to be implemented wherever possible.

And I say this in challenge to Dr. Wright, whom I have heard argue this point, and with whom I have argued it in years gone by: Actually what has occurred in the most recent 10 or 15 year period—or let's take the period since the end of World War II—has been a sharing of productivity advances, a sharing with the workers in the form of higher wages. There is no question that there have been substantial real wage improvements in America in the last 10 or 15 years. Secondly, increased efficiency in productivity has been shared with higher profits of the corporation.

They have not been shared with the consumer in the form of lower prices. And this really is one of the key issues we face in terms of economic policy and in terms of steady, normal growth in American life. And I think one of the big problems is the failure to share productivity with the consumer in the form of lower prices.

But let me quickly add that if there is a 3 or 4 or 5 percent increase in productivity, this does not mean that if the unions get a 4 or 5 percent increase in wages that there is nothing left to be shared with the corporation in the form of higher profits or with the consumer in the form of lower prices, because, as we all know, wages are only one segment of the total cost of production, and a 4 percent increase in productivity can be passed on as a 4 percent increase in wages, and you still leave at least half, if not more than half, of the 4 percent increase in productivity to be shared the other two ways, with lower prices and higher profits, and that the key to American life is the sharing three ways.

Now, let me just take exception to this jingle that Dr. Wright emphasizes and that Mr. Boulding developed.

I am not so sure that an increase in wages of 10 percent can either produce unemployment or inflation. I do not agree with that concept at all. And, as a matter of fact, I disagree with Professor Wright's original comments where he said wages were rising faster than prices and wages were rising faster than productivity. Don't take my word. Don't take my figures. I refer you specifically to the study that the Department of Labor and the BLS has just done. It has just been incorporated in the volume of the Joint Economic Committee. The study is on prices, profits, productivity, and wages.

It shows that over the period of 1947 to 1956 real wages have lagged behind the rising productivity. From 1953 through 1955, they about equaled each other. And only in the year 1956 did real wages exceed productivity.

Secondly, in this same study I refer you to the fact that unit labor costs lagged behind in each instance and in each year from 1947 to 1956. That is, the unit prices of the products produced.

I refer you not to my figures, but to the Bureau of Labor Statistics study.

Mr. WRIGHT. It is possible that a 4 percent rise in productivity can be passed on by a 4 percent rise in wages without cutting profits. But I do not think that a 4 percent rise in productivity can be passed on into a 10 percent rise in wages without cutting something.

As far as the figures go, in the joint committee study of this year entitled "Productivity, Prices, and Income," average hourly wages in nonagricultural production are shown on page 277 to have risen 59 percent between 1957 and 1958. Physical output per man-hour in manufacturing, reported on page 148 of the same study, was 95.4 in 1947 and rose to 133.54 in 1956. Productivity lagged behind wages. Productivity rose 40 percent. Wages rose 59 percent. These are just the figures.

This is, of course, a terribly complicated subject. Of course the jingle refers to the annual rate of money wages increases. And I do not believe that there are many economists who would feel that money wages could rise faster than productivity without precipitating either unemployment or inflation. I may say that this jingle was merely the sort of a synthesis of the discussion of eight economists, including Professors Haberler, Knight, Chamberlain, Samuelson, Friedman, myself, J. M. Clark, and Boulding. It followed a long paper by J. M. Clark in which he tried to make out some objective standard of how far wages could rise without producing inflation. (See *The Impact of the Labor Union*, Kelley and Millman, 1956.)

He figured if the average rate of increase of productivity was about 2½ percent—that is, the average rate, and we have not quite been making it recently—that then we could probably have a rate of money wage increase of about 3 percent per year without getting too much in trouble either way.

But Professor Samuelson said "union leaders are kidding themselves and they know it" if they think that a 10 percent increase in money wages, each year, can be followed by a 10 percent increase in real purchasing power.

Senator FLANDERS. Mr. Chairman, I must apologize to you and to the panel for introducing this collateral subject. I think that we are

clear that there is a difference of opinion among the panel, and that probably it does not add to the interest in the subject to have set before us this matter if we endeavor to resolve that difference of opinion right now. So, I resign my position of questioner at this moment.

Representative MILLS. I think Mr. Curtis has some more questions.

Representative CURTIS. I just had one question that I wanted to ask.

It is a question of an area where the Federal Government might have an expenditure. It is an area which I think all the papers agree would promote growth.

The reason I want to pose it is because I think it is an important question, No. 1; but in posing it, it might help my own thinking as to whether this is an area that the Federal Government should or should not get into.

I have some rules of thumb that I use to try to determine whether it is an area for the Federal Government. That is in regard to abstract science.

And Professor Vandermeulen develops that to some degree on page 317 and then concludes with the thing that I have heard mentioned before. Apparently we have in the past been importers of pure science, but probably cannot continue to be.

Professor Domar devotes some discussion in his paper on education which is somewhat similar. And Professor Deussenberry also, on page 175, develops some thought on it.

Now, the context that I would like to put it in is somewhat like this: There have been some people that have said that our patent laws, for example, no longer really take care of the problem of enabling corporations to get a return on the moneys they spend for research and development. In fact, some people in the chemical industry have said to me, after some interrogating, that the reason they have been going for the tariff as a device is that in that particular industry where they have constantly developed new products they find that the patent laws do not lend themselves to regaining the investment that they make in research and development. Is it possible to get this study in pure science which apparently we have not been getting through our big corporations or through private sectors of the economy?

Or, the second question: Where have we been getting what we have in the past? Has it been through our private institutions of learning? Or has it been through private charities like hospitals and that sort of research and development area?

Or is it indicated that, as we have in the health field, where the Federal Government has gone into the National Health Institute, it is through the Government? I, myself, have felt that nobody has ever analyzed this problem before we moved into the National Health Institute. Maybe that is the correct way, but this is an area that it seems to me we need to examine.

And then, finally, the question I asked was: If we have been importing pure science from abroad, what sort of system do these countries such as Germany have? How have they developed pure science? Has it been done through a governmental program, or has it been a combination? Or what sort of balance has been achieved there?

If anyone would discuss that, I think it would be helpful on two things; one in throwing light on the specific problem, and also in giving possible guidelines of how we go about determining whether the Federal Government needs to go into a particular area.

Professor Vandermeulen.

Mr. VANDERMEULEN. I might be able to make a few comments on that.

First, with respect to the argument of the chemical industry: I had not heard of that before these meetings. And I find it a little difficult to follow that they need tariff protection to protect them in order to get returns from their research and technological change.

What this seems to suggest is that they are running into competition from the research and technological change of chemical industries in the rest of the world.

Representative CURTIS. That is part of it there, yes. But the point they are making is this—and I can see their point; I do not know how valid it is. But the point is that you spend a million dollars to develop a product. It is so easy once you have learned the secret for some one else to do it. And the patent laws are inadequate to protect it. So, the others just grab off the results of your research and development. You can see how that could kill research and development from an economic standpoint. You cannot afford to put it in there if someone is going to pirate it before you can get your investment back.

The whole theory of the patent laws was to give some people a return—a monopoly, if you please—on their idea for a short time. And, as I interpret it, economically you would get a return on the investment that you are willing to stick into the thing along with some profit, to encourage it.

And, incidentally, in our tax structure, we did something to try to encourage research and development on the economic level of the private sector of our economy in the last tax bill, 1954, where we gave some additional deductions in that line. So I can see their argument.

Mr. VANDERMEULEN. There is an international convention. And presumably there are countries that are not observing international patent laws. I am a little suspicious of this argument. I do happen to know one man in a similar industry who has a number of patents. And the argument he is bringing forth is this: That what we need is a tariff on patents. In other words, his argument is that every other industry in the United States or all other persons in the United States in business are protected except the poor inventor. What we need is something to keep out these foreign inventions.

In view of the current situation, it is obvious what folly that is. So, I am a little suspicious of this line of argument.

I probably should not comment further about the chemical industry until I have some of the facts with respect to it.

Representative CURTIS. I was trying to illustrate a point.

Mr. VANDERMEULEN. I will say, I think that with respect to pure or basic research there are dangers involved in placing reliance on private business.

I do think that where there are very long-range objectives, as there must necessarily be in the most basic type of research, and where also the patent laws may not provide adequate protection, I can agree very well that in basic research, much of it is not patentable, that the in-

centive for our corporations is very much weakened. And unfortunately also, I think it is weakened by immediate competitive pressure, because the stronger the immediate competition, the more necessary it may be to do the short-run things that will secure survival in the short run.

I am inclined to think that companies like American Telephone & Telegraph can afford to do very long-range research on shortwave radio, because their position is relatively secure. And they can see that shortwave radio in the distant future may be a competitor for long-line telephone. Their position is such that they can take that long-range view.

I do not think that it is possible for most corporations to do that. And so I feel that there is in some sense a conflict between the anti-trust laws and the gain of securing a sufficient amount of basic research. You do find, as I mentioned in my paper, that many corporations recently have been advertising; only the large corporations can do a sufficient amount of research. So I leave to the others answers to other parts of the problem.

Representative CURTIS. Could anyone throw any light on what other systems have produced the work in pure science? That is, if we agree.

I have heard it repeated many times that we in this country have not developed or have not done very much in pure science. So it becomes interesting to know what other countries have done to stimulate it.

Mr. DUESENBERY. I can speak to the English system, at least. There are two features of it that are important. One is that for many years the whole English school system has really been geared very heavily toward selecting out people who will work in basic science. There is great emphasis on mathematics in the secondary schools. It has also been true for many years that Cambridge scholarships have been arranged in such a way that a good mathematician or good physicist had a much better chance of a scholarship at the university than before.

Representative CURTIS. That is the private educational sector.

Mr. DUESENBERY. Yes. This was in the days when Cambridge University was a private university.

The second thing is that ever since the war, Cambridge University and all the English universities are so technically private and are in fact financed. A very large extent, 75 or 80 percent of the funds of the English universities come from a government grant, which is administered, I might say, by giving a lump-sum grant to the university grants committee, which consists of representatives from the university, who distribute it among them.

Now, this means that the actual cost of the laboratories and the salaries of the scientists in the English university are paid by the United Kingdom Government, although the universities are operated on a private basis.

Now, this is a combination of the operation of the secondary school system, which tends to select out people for university careers and it favors very heavily people who are interested in basic science and are good at it; and the supply of funds to the university from the central government.

I am not suggesting that this is the way that we ought to do it.

Representatives CURTIS. No, no.

Mr. DUSENBERRY. I am just stating what the situation is. I do not really know about the continental system.

Mr. DOMAR. Just to add to what Mr. Duesenberry said, the financing of higher education in Europe has been done for many years by the government, which has had some advantages and, naturally, some disadvantages. I think there is a difference in the matter not only in finance, but in attitude. We are practical people. Therefore, there is less tolerance for theoretical work which may never give practical results. It may give practical results years and years from now.

We are inclined to think that if something is to be financed, it should have results that are practical, not necessarily this year, but practical in general.

The reason I was arguing for Federal support of basic research comes from also a rule-of-thumb criterion as to what the Federal Government should or should not do. One of the criteria that I would use is whether those persons or corporations that make the expenditure benefit from it. If there was a benefit, I would be less inclined to say that the Government should finance it. If there is no material benefit or if there is a slight material benefit, while the society as a whole benefits, then I think the case for Federal contribution is naturally so much stronger. When it comes to basic research, there are very few financial benefits, if any.

You get a reputation, true enough. But as far as any financial benefit goes, you might perhaps get a small raise in salary from your university.

But all those things are small. I am not aware that Dr. Salk, who invented the polio vaccine, benefited from it. He would have, if he had taken a patent and had it run by a corporation.

There is even more to it than that. When the Federal Government gives grants for research, it is very anxious to assure the practicality of the project.

There was an article in the New York Times a short while ago which described how medical research has to be falsified, in a way, to justify Federal grants.

A man who wants to work on cell structure does not put down that he works on cell structure. He puts, instead, that he is working on cancer. Now, his work may have some relation to cancer one of these days, but he is really engaging in basic research. But, to justify the Federal grants, he has to say that it is really something fairly practical.

You will find a similar situation, let us say, in economic research. In the field where I work sometime, the research is in Soviet economics. If you want to do something fairly practical, you can get it financed not only as far as expenses go, but you will be paid very well in addition. On the other hand, if you want to do something more theoretical, you do it on your own. You might go to a foundation and ask them to pay your expenses. And that is as far as you get.

Representative MILLS. Gentlemen, we thank you for participating in our compendium and for being present with us this morning to participate in the panel discussion with the subcommittee. Thank you very much.

The committee stands adjourned until 2 p. m., and we will reconvene in this room.

(Whereupon, at 12:25 p. m., the subcommittee recessed, to reconvene at 2 p. m., the same day.)

AFTERNOON SESSION

Representative MILLS. The subcommittee will please come to order.

This morning we devoted our attention in this study of Federal expenditure policy for economic growth and stability to the impact of Federal spending activities on the processes of growth in the private sectors of the economy. This afternoon we turn our attention to the closely related topic of Federal expenditures and economic stability.

In passing, let me make clear the distinction between stability and rigidity in economic affairs. As an objective of public policy, we certainly do not seek to freeze resources. On the contrary, it has become increasingly apparent in recent months that stability, in the sense of orderly adjustment to changes in circumstances, can come about only if our productive resources are highly mobile. The reflections of economic stability are found in a limited range of fluctuation in the rate at which the economy uses its available resources and in the general price level.

As we all know, the Federal Government is the single largest resource user in the Nation. It is clear, therefore, that its spending programs necessarily must have significant consequences for economic stability.

We will proceed in these hearings in the order in which the papers appear in the compendium, and each panelist will be given 5 minutes in which to summarize his paper. We will hear from each panelist without interruption. Upon completion of the opening statements, the subcommittee will question the panelists for the balance of the session. I hope that this part of the session can be informal, and that all members of the panel will participate, commenting on the papers presented by other panelists and on the subcommittee members' questions.

The first panelist this afternoon is Mr. Walter D. Fackler, assistant director, department of economic research, United States Chamber of Commerce.

Mr. Fackler, you are recognized for 5 minutes.

STATEMENT OF WALTER D. FACKLER, ASSISTANT DIRECTOR, DEPARTMENT OF ECONOMIC RESEARCH, UNITED STATES CHAMBER OF COMMERCE

Mr. FACKLER. Thank you, Mr. Chairman. Before summarizing my paper, I would like to point out that I am here not as an official representative of the United States Chamber of Commerce, but in a private capacity. Naturally, because of my association, unofficially I do represent the United States chamber. In my paper I was not trying to formalize chamber policy. Rather, I was trying to review the state of the debate among economists as to current thinking on

how fiscal policy, particularly Government spending, can be used to promote goals of economic growth and stability.

With this introduction, I will summarize my paper.

Economic stability as a policy goal is difficult to define. People really do not want much stability beyond the avoidance of both mass unemployment and advanced inflation. Even when agreement is reached on what constitutes reasonable stability, major disagreements inevitably arise over the means for achieving it, the proper combination of policies, the economic outlook, the long-run economic and social effects, and related matters.

Economic stability is an attainable policy goal if it is viewed as the avoidance of major maladjustments—if enough flexibility is left in the economy for normal and necessary adjustments in prices, income, and employment to take place.

Moreover, economic stability must be related to the economy as a whole; hopeless confusion and disagreements ensue if stability is interpreted to mean the insulation of every individual, industry, or occupation from the effects of economic change. Fundamentally, economic stability is a problem of social discipline as well as one of technical economics.

The present debate is mainly concerned with the different combinations of monetary and fiscal policies which can or should be used to promote greater stability and more orderly growth. Almost everyone recognizes that the public sector is now so large, relatively and absolutely, that whatever the Government does or does not do will have considerable economic impact on incomes, employment, and price levels. There is, therefore, wide agreement that spending policy should at least work in the right direction.

The purpose of the following remarks is to outline some of the basic issues, summarize some of the practical and theoretic problems, and stake out an area of fairly general agreement on policy matters.

The basic policy issues:

1. Should Government spending be manipulated in light of changing economic conditions?
2. If so, to what extent, according to what criteria, and how should such spending be financed.

In bare outline, there are several logical possibilities:

1. Compensatory spending: Such a policy calls for increased spending in recession and reduced spending in a boom. The budget would not be balanced on an annual basis, but presumably budget deficits and surpluses would cancel out in the long run.

2. Stable budgets: Here spending is kept fairly stable, with primary stabilizing action coming from either built-in or formula flexibility in tax rates or from ad hoc changes in the rates.

3. Annually balanced budgets: Budgets may be balanced with no attempt to stabilize via fiscal policy; or even within the discipline of balanced budgets countercyclical upward and downward adjustments may be made in spending which are fully matched by changes in tax rates and revenues.

There are uncomfortable alternatives in all of these policies. In reality, the range of choices open is not very wide because no one really likes all the implications and entailed decisions of the alternatives. Compensatory spending involves alternating expansion and contraction of the size of the public sector, and also calls for periods

of deficit financing. Stable spending with countercyclical tax adjustments might require very large deficits in recession and also produce undesirable tax repercussions. The balanced budget approach as a stabilizing policy is impractical because countercyclical expansion and contraction of both the public spending and taxes would probably have to be unrealistically large.

In addition to the basic problem of alternative budget policies, there are many theoretical and practical difficulties in manipulating Government spending in a stabilizing manner.

In barest outline some of these are :

1. Oversimplification. Realistic policy cannot be based on simple aggregative theoretical models of national income and employment.

2. Forecasting. Appropriate policies would have to be based on the uncertainties of short-run forecasts; the problems here are well known.

3. Timing. The budget process is too long for prompt adjustment in the rate of spending.

4. Time lags. Economic processes take time; economic conditions may change before significant results are obtained from spending policy.

5. Minimum sensible changes. "How much" and "what kinds" of changes should be made in Government spending?

6. Determination of norms. What employment, price and growth rate goals are mutually consistent and how could they be determined?

7. Market discipline. Spending policy is not suitable for correcting maladjustments arising out of structural rigidities and monopoloid elements in labor and product markets.

8. The perversity of State and local finance. Unstabilizing fluctuations at other levels of government puts an added strain on Federal spending policy.

9. Public attitudes. There are very real public fears that lack of fiscal discipline or responsibility in Government makes Government spending too dangerous as a major stabilizing device.

Now, to sum up some implications for spending policy, on which I think there is fairly widespread agreement.

The nature of the alternatives and the practical policy problems tend to promote agreement on certain fundamental issues at least.

1. Government spending should play a secondary role behind monetary policy and perhaps even behind tax policy as a stabilizing measure. At minimum, variations in Government spending should not reinforce instability in private demand.

2. Though spending policy should normally reinforce monetary policy capricious variation in spending for stability reasons should be avoided.

3. Adequate budgetary procedures and controls are essential for development of rational spending policy.

4. Ways and means to get greater automatic countercyclical flexibility into Federal long-range spending programs should be patiently and persistently pursued.

5. Annually balanced budgets appropriate for normal times are inappropriate in periods of economic stress. Debt retirement in boom periods is highly desirable, but rigid annual schemes for debt retirement in spite of economic conditions would work against stability.

Likewise, economic overload by Government in periods of inflation undermines stabilizing spending policy.

6. Spending policy cannot be divorced from debt and tax policies. Policy problems can be minimized by working from both sides of the fiscal equation—both spending and taxing.

A final word. Although there is now a sizable area of agreement on general policy guides, no amount of economic analysis can provide policy prescriptions or relieve us from the inescapable necessity of choosing among alternatives. Economics can only make explicit some of the implications of choice and help us to choose more intelligently.

Representative MILLS. Thank you, Mr. Fackler.

Our next panelist is Prof. Walter Froehlich, professor of economics, College of Business Administration, Marquette University.

Mr. Froehlich, you are recognized for 5 minutes.

**STATEMENT OF WALTER FROEHLICH, PROFESSOR OF ECONOMICS,
COLLEGE OF BUSINESS ADMINISTRATION, MARQUETTE UNIVERSITY**

Mr. FROEHLICH. Thank you, Mr. Chairman.

Permit me to thank this committee for the kind invitation and the opportunity afforded me to take part in this most interesting study.

Today we are to deal with only economic stability, that is, with the overall effects of expenditures in mitigating cyclical fluctuations. Basically, Government income and expenditure ought to be varied to compensate for variations in the flow of private income and expenditure. In depression Government expenditures and deficits should be higher; in prosperity Government expenditures should be lower and surpluses higher. In my paper I have tried to point out some unresolved difficulties and to offer some tentative generalizations for judging specific spending programs.

Comparison of aggregated national-income figures, even after allowing for changes in the value of money, may be misleading when used to compare the achievement of the economic processes. Usually, use of labor and resources by Government, taken at cost, is considered national income. In fact, all questions are thus begged if achievement is measured simply by cost. Unresolved conflicts of value judgment will appear if we "evaluate" by this or any other method Government product. Definitions of full employment are also fraught with pitfalls. The best we can do is to arrive at benchmarks, that is, to determine the numbers of unemployed requiring different types of corrective measures. These benchmarks should be arrived at in advance, but probably not be published.

Figures of aggregated Federal expenditures are not very helpful even if indirect effects, for example, multiplier effects, are to be taken into consideration. Sometimes expansionary effects precede the expenditures, as when private business spends for goods ordered but not yet paid by the Government; sometimes effects appear much later or are due not to expenditures but to guaranties or the like.

The automatic flexibility of Federal expenditure is slight because of the preponderance of defense expenditure. For our purposes speedy changeability is most important. This refers not only to our ability in starting expenditure programs but also in ending them. For countercyclical policy we must use primarily deficit spending because the

expansionary effects of revenue-covered expenditure are at best very weak and may well be negative. We are quite certain about the short-run effects of expenditure increases in a depression. We are less certain about the effects of expenditure decreases in a period of prosperity, especially if the surplus is not sterilized but used for debt reduction.

Despite our restricted knowledge of the quantitative aspects and of the indirect repercussions we may arrive at some positive generalizations. Public expenditure should be of a type rather favorable to the growth of private investment. Expenditure ought to be somewhat socially useful so as not to disturb investors' attitudes, though not so useful as to make termination not feasible. The prevailing emphasis on investment industries, including construction, is justified.

Increases in the debt size and the price level (beyond cyclical swings) have to be carefully watched and restrained. We ought to be content with aiming at less than at achieving a set level of employment and of prices. Expenditure policy can be used successfully only to mitigate fluctuations. The determination of a tolerable range of fluctuation in output, employment, and prices and hence of tentative benchmarks for legislative and administrative consideration of corrective action should be a primary policy decision. The permitted range of fluctuation should not be too narrow, if for no other reason because of our restricted understanding and knowledge. We have at present become more concerned with the long-range dangers of exhilaration. The choice of the method to be used in deciding unresolved doubts about the limits of permissible spending involves in itself also a most crucial policy determination.

Representative MULLS. Thank you.

Our next panelist is Bert G. Hickman, research associate of the Brookings Institution.

Mr. Hickman, you are recognized for 5 minutes.

STATEMENT OF BERT G. HICKMAN, RESEARCH ASSOCIATE, THE BROOKINGS INSTITUTION

Mr. HICKMAN. It is commonly asserted that the growth in the relative importance of Federal spending has augmented the stability of the postwar economy. In my examination of this proposition I confined my attention to the structural effects of big government as a factor influencing the exposure of the economy to disturbing forces, on the one hand, and the manner in which it reacts to those forces, on the other.

I did not, in other words, discuss deliberate contracyclical fiscal actions, such as changes in Government expenditures or tax rates designed to offset unwanted fluctuations in private demand.

The principal conclusions which I reached from a survey of the postwar behavior of Federal spending on goods and services were summarized as follows (p. 365) :

It has been the least stable of the major components of domestic expenditure for final goods and services. This instability was primarily a reflection of changes in the climate of international relations, which several times exposed the economy to potent inflationary or deflationary shocks. In some instances, these shocks acted to

initiate or to quicken the prevailing tendencies toward expansion or contraction, and in others to mitigate them.

Since 1954, however, Federal expenditure has remained comparatively stable, and until recently it was not an active factor in the expansion of aggregate activity which got underway in that year. It is evident from earlier experience, nonetheless, that Federal expenditures cannot be counted among the inherently stable components of aggregate demand for so long as they consist predominantly of outlays for national defense and security.

The foregoing was written before the appearance of the Sputniks. If defense outlays are enlarged as a result of that development, one more instance of a cyclically independent variation of Federal spending will be added to the postwar record.

I next turn my attention to Federal spending and the new composition of demand. Measured in dollars of constant purchasing power, the shares of both consumption and investment in gross national product have diminished as Federal expenditure has increased. Private fixed investment still bulks large enough, however, to fall as far relative to full employment gross national product as it did between 1929 and 1933. It cannot be maintained, then, that the potential range of investment demand has been substantially diminished by the growth of Federal expenditure, even if the latter should remain stable in the future. A high floor may have been placed under the economy by that growth, but if so, it is due to effects less direct than a simple displacement of hitherto unstable investment demands.

First, the inherent variability of investment demand may have been reduced through the expansion of governmental activities or by reason of other structural changes in the economy. These structural changes have tended clearly to moderate the secondary repercussions of cyclical contraction, including those on investment, but they do not act in the first instance to diminish fluctuations of demand caused by innovations, changes in tastes, variations in population growth, resource discoveries, and war, to name some important sources of disturbance. As long as such sources remain, it is not safe to conclude that wide swings of investments are impossible or improbable.

Second, as Federal demands for goods and services have grown, so also have taxes and transfer payments. Automatic changes in tax revenues and transfer expenditures have added to the stability of the postwar economy by moderating the impact of increases and decreases in gross national expenditure on disposable personal income, and, hence, on consumer demand.

This is shown in the paper by a comparison of recent experience with the 1920's. Although an "automatic stabilizer" in the form of induced changes in business saving acted to cushion disposable income in the twenties, this effect has now been strengthened by the additional damping provided by taxes and transfers.

At the same time, it should be noted that induced reductions of undistributed corporate profits were sufficiently important to cause disposable income to rise relative to gross national expenditure during the mild contractions of the midtwenties, and that rate reductions were responsible for large shares of the decline of tax revenues during the two recent postwar recessions. Automatic stabilizers are neither so new, nor so newly effective a feature of the economy, as some statements would suggest.

In a final section, I modified two previous conclusions to take account of the fact that they had been derived from an analysis limited to problems of short-term fluctuation. First, viewing the postwar period as a whole, the longer run effect of the demands for national security has been to foster expansion, notwithstanding the fact that the unstable growth of Federal expenditure occasionally introduced some overall instability into the economy.

I might add parenthetically that to say it has fostered expansion does not mean expansion would not have occurred without it—these are two separate questions.

Second, I had concluded earlier that Federal spending would become a destabilizing factor if it were altered to keep pace with induced movements of tax receipts in an effort to attain a continuously balanced budget. This conclusion holds unreservedly for declines, but when it comes to stable growth it may be desirable for Federal outlays to rise along with revenues, lest the expansion of income be unduly restrained by an uncompensated increase of tax collections.

Whether increased Federal expenditure (or tax cuts) would in fact be desirable from the standpoint of stability would depend upon the prevailing degree of inflationary pressure and also upon the probable expansion of private expenditure.

Representative MILLS. Thank you.

Our next panelist is Prof. Sherman J. Maisel, School of Business Administration, University of California, Berkeley.

Professor Maisel, you are recognized for 5 minutes.

**STATEMENT OF SHERMAN J. MAISEL, PROFESSOR, SCHOOL OF
BUSINESS ADMINISTRATION, UNIVERSITY OF CALIFORNIA,
BERKELEY**

Mr. MAISEL. Mr. Chairman, my paper attempts to establish some general guidelines which can be used to measure the desirability of varying public expenditures to obtain stability. These guides apply whether the problem is one of inflation due to too much aggregate demand, or deflation caused by too little. I have concentrated my effort in the areas of public construction and housing. It is in these spheres that most serious efforts to fluctuate spending contracyclically have occurred.

I think we can all agree on one principle: The Government should spend its money as efficiently as possible, no matter what the economic climate.

The desirability of optimum efficiency holds, even though it is also true that in a recession the Government is likely to get more for its money. In recessions increased spending can lead to the employment in both the public and private sectors of otherwise unused resources.

Many assume the converse to be true—that the return to the Government falls so far in an inflation that spending should automatically be cut. This does not follow. The least efficient use of a resource may occur as readily in the private as in the public sector.

It is vital that decisions be made carefully in terms of specific outlays. Spending cuts will be useful only if the lowered demand brings about balance in a particular market or frees useful resources. Furthermore, the decision should not lower welfare through curtailment of expenditures on vital goods.

Hatchet attacks aimed at cutting public expenditures in order to fight inflation are a major threat to future prosperity and to our democratic way of life. It is bad theory and bad practice to believe that because our country has grown richer and therefore more willing to buy luxuries we must cut spending for defense, education, and other public goods. The proper way to fight inflation is to cut spending on the least essential goods whether they are in the public or in the private sphere. Recent policy has been wrong when it has followed the line of least resistance and has curtailed national security expenditures as well as programs for public works and housing.

Despite the tremendous propaganda aimed at cutting Federal expenditures, I am convinced that the average American citizen feels better and happier if he knows that the Government is doing all it can to protect our freedom. We sleep more soundly and get more satisfaction from a sense of national security than from a few extra beers or rich foods.

Similarly, I find my neighbors willing to sacrifice their second or third TV sets in order to pay this money in taxes so that extra schoolrooms can be built and our children can be taken off double shifts.

As we cruise the streets looking for parking spaces and move from one traffic jam to another, few feel that the extra inches on late model cars are an adequate substitute for a good highway and parking system.

If inflation is caused by too great a desire to spend relative to our total available resources, fiscal and monetary policy can promote stability by helping to cut total spending. An efficient policy must, however, cut in the proper places. Recent monetary and fiscal policies have been deficient because the criteria on which decisions have been based are ease of administration and political expediency. Too little effort has been given to finding the specific areas of high demand or the spheres where resources have been used for the least significant purposes.

Policy based on an inadequate examination of specifics is most evident in the recent action of the Federal Reserve Board. Through their spokesman, the Board has argued in effect that monetary policy should be concerned only with changes in the total amount of purchasing power. They agree that changes in monetary conditions have vastly divergent impacts on particular parts of the economy, but claim that this is a problem for others to worry about. I disagree. It seems to me that the whole concept of the Employment Act of 1946 demands the coordination of all governmental powers in order to best promote stability and growth.

We should not base policy on an assumption which may be wrong, but rather on a careful evaluation of the impacts of changing policies on the separate parts of the economy. Only with such knowledge can the cost and effectiveness of present procedures be compared to other possible controls, such as the qualitative use of money or the imposition of new taxes. Without such detailed knowledge, optimum decisions are impossible.

My paper raises serious questions as to whether the impact of tightened credit in the spheres of housing and public works—its main area of effectiveness—has had a desirable result. It is not clear that it has

kept costs down, but it probably has shifted resources away from some of our Nation's most basic needs.

The more detailed analysis of problems of expanding public works in a recession makes clear the difficulties involved in increasing demand in this sphere, except in major depressions. I think the corollary may also be true. It is probably inefficient and a waste of resources to shift the level of housing and public works radically because of minor inflations.

There are major advantages for both growth and stability in attempting to find the optimum level of public spending in the construction sphere and then aiming at the maintenance of that level, even while minor fluctuations take place in the rest of the economy.

Representative MILLS. Thank you, Professor Maisel.

Our next panelist is Ralph Robey, economic adviser, National Association of Manufacturers.

Mr. Robey, you are recognized for 5 minutes.

STATEMENT OF RALPH ROBEY, ECONOMIC ADVISER, NATIONAL ASSOCIATION OF MANUFACTURERS

Mr. ROBEY. Thank you, Chairman Mills.

I do not have a summary. I thought I would merely pick out a few paragraphs from my speech which I think carry the main burden.

Economic growth does not mean a uniform rate of increase for all areas of economic activity. Our past growth has resulted in striking qualitative changes in character from a predominantly agricultural economy to one in which agriculture plays a relatively minor role.

Although we cannot foresee them in detail, the only safe assumption is that similar qualitative changes will occur in the future.

There is no worse solution than to assume that economic growth will produce an economy which is identical with the present one except on a larger scale. It is of the very essence of economic growth that its effects on different types of activity will be uneven. Uneven growth should not be confused with economic instability.

Despite the inroads of Government in recent years, this is still a profit-oriented economy. Things happen because someone believes it will be profitable to take the steps which cause them to happen. Other things fail to happen, because no one finds it profitable to take the steps which might bring them about.

A period of unemployment is a period in which there are insufficient opportunities for making a profit through the employment of people to produce goods. Since profit is an excess of selling price over cost, we must conclude that in such a period there is something wrong with the relationship between the price which may be obtained for finished goods and the cost of producing them.

It is clear that Government spending cannot penetrate to the heart of this problem and correct the conditions which have brought it about. The most the Government spending might do conceivably is to offset the evil effects of such job-destroying situations.

The Federal Government can create new opportunities for earning a profit through employing people and producing goods. It can do this by bidding for additional goods on the cost-plus basis. It can also create new jobs by spending its money so as to employ people directly.

Spending money raised by taxation is a very doubtful way of stimulating business activity. The question of how those who bear the tax burden would otherwise have spent this money must be raised. Beyond this it must be remembered that private business activity can be stimulated only by creating new opportunities for profit, and most forms of taxation have an adverse effect on profitability.

The spending of borrowed money is also doubtful in its effects. If the Government offers to pay a competitive interest rate, it may simply attract away loanable funds that might have been used for expanding existing enterprises.

But suppose, for argument, that a technique could be found whereby it could be assured that Government spending would provide a net addition to the opportunities for profitable production and employment. Would not this be the perfect and painless answer to all our fears of recession?

In the first place, it is not a painless solution. It involves surrendering to the Government some part of the productive potential which would otherwise be used to produce goods for us to enjoy as individuals. It is one thing if Government spends money for performing its necessary functions; it is another thing if the Government purchases goods for the purpose of providing a market for them.

Second, it is not a perfect solution since it does not deal with the root causes of the difficulty—costs that are too high in relation to market conditions. At best it can only offset the depressing effects of that imbalance.

The only safe policy is for the Government to limit its expenditures to those necessary for the performance of governmental functions. Expenditures specifically motivated by the intention of promoting economic stability must in the long run intensify instability.

In recent years the compensatory budget view of Federal fiscal policy has attained a certain currency. In this view Federal budgets of the general type we have had since World War II would be regarded with satisfaction since they exercise an automatic stabilizing effect upon the economy.

In its application as an antirecession weapon, the compensatory view seems to depend on the fact that by collecting excessive amounts in taxes during good times we have an opportunity to improve conditions in bad times by reducing the amount of tax collection.

This is like saying that it is a good policy to hit one's self on the head with a hammer every day since it leaves one with the opportunity to improve his well-being by ceasing to do so.

Our market system generates forces which guide the economy and tend to keep production, employment, and so forth in rough adjustment. It is true that these forces sometimes act with distressing sluggishness. It is also true that these forces may be rendered inoperative by deliberate interference with market operations; for example, by monopolistic setting of wage costs.

But the impersonal market forces must always be our major reliance if we are to preserve an economic system which is recognizable as free enterprise.

Government spending cannot directly influence these equilibrating forces. The most it can do is substitute itself for them when they do not seem to be operating satisfactorily.

The trouble is that Government spending, by offsetting any unpleasant effects of the maladjustment, also offsets the corrective forces which would eliminate it.

Thus, the consistent policy of using Government spending to promote stability must result in a constant accumulation of unstabilizing influences.

Thank you.

Representative MILLS. Thank you, Mr. Robey.

Our next panelist is Prof. James R. Schlesinger, department of economics, University of Virginia.

Professor Schlesinger, you are recognized for 5 minutes.

**STATEMENT OF JAMES R. SCHLESINGER, ASSISTANT PROFESSOR,
DEPARTMENT OF ECONOMICS, UNIVERSITY OF VIRGINIA**

Mr. SCHLESINGER. Thank you, Mr. Chairman.

Since the onset of the depression, the sums disbursed by the Federal Government in the servicing of its debt have crept steadily upward. In the current fiscal year, Government interest payments are now anticipated to be almost \$7.9 billion—or some half a billion dollars more than the estimate in the President's budget. This compares to some \$600 million in 1932.

Yet, relative to total output, interest payments, now 1.8 percent of gross national product, are only 3 times as high as in 1929, and are down somewhat from the high point of 2.3 percent of gross national product which was reached in 1946.

Viewing interest payments in historical perspective may help to dissipate some of the more frenetic attitudes that have been generated by the large absolute increases. The present cost of servicing the debt does not seem to be unduly heavy relative to our capacity. Interest payments, nevertheless, do constitute a drain on the budget and a burden on the taxpayer; they serve no productive function. In what way, then, do interest payments contribute to economic stability?

The traditional answer is that the demand for investment funds is tailored to the supply of such funds through the deterrent power of the interest rate. By preventing excessive spending from borrowed sums, inflationary pressures are avoided. In recent years, however, it has been recognized that the process is somewhat more complicated. The rate of interest controls borrowing indirectly. Variation of the interest rate is the consequence of our control over the volume of money and will reflect changing demand conditions in the money market.

In the absence of direct controls, we cannot control both the supply of money and the price at which it can be borrowed. But surely we must maintain control over the money supply, for a redundant money supply and excessive liquidity carry with them the gravest danger of stimulating inflationary pressures. The variation of the interest rate may be viewed as the price paid for tailoring the level of liquidity to the needs of the economy. It is also the price of proper debt management.

Unless we are willing to abandon control over the money supply, the interest rate must remain flexible. But this also implies that fluctuation in the amount of Government interest payments is an essen-

tial ingredient for the achievement of economic stability, since the interest rate is the chief variable influencing total interest payments. The various side effects of high interest rates, which to some extent encourage a rise in prices, may be viewed as secondary in influence to the main function of allowing the money and capital markets to adjust to changes in the demand for credit, without permitting excessive borrowing.

Thus, it may be seen that the chief contribution made by Government interest payments is to stabilization. With respect to economic growth, it does appear that high interest rates do discriminate unduly against the very types of investment that contribute most to the growth process. Yet, the availability of credit is limited by the amount of resources made available for capital formation through the nonconsumption of national output. In the absence of direct controls, there is no real alternative to higher interest rates and lessened growth, when the demand for money rises. The proper method of coping with the problem of too slow a rate of capital formation would be to supplement private savings via a surplus in the Federal budget.

The present debt is not excessive from the standpoint of our fiscal capacity, and certain factors do promise an attenuation of the burden. As a result of the growth of the Government's trust funds and the increased holdings of the Federal Reserve System, the amount of publicly held Federal debt will shrink, thus alleviating the fiscal burden of the debt. Interest rates do, however, seem to be on the rise internationally, and Congress may desire to lessen the pressure of interest payments upon the budget.

It must be frankly recognized that within our present monetary structure "pegging" of the interest rate would be foolhardy and there is no real alternative to permitting variation of the rate. Interest payments might, however, be reduced by making greater use of the Federal Reserve System, as opposed to the commercial banking system, in the monetization of the public credit. The expedient of raising reserve requirements, by forcing a larger amount of debt into the Federal Reserve System, would permit a reduction in the cost of servicing the debt. It would also imply, of course, some measure of retreat from the fractional Reserve System, and that is, perhaps, an even weightier consideration.

Representative MILLS. Thank you, Professor Schlesinger.

Our next panelist is Dean Harold M. Somers, School of Business Administration, University of Buffalo.

Dean Somers, you are recognized for 5 minutes.

STATEMENT OF HAROLD M. SOMERS, DEAN AND PROFESSOR OF ECONOMICS, SCHOOL OF BUSINESS ADMINISTRATION, UNIVERSITY OF BUFFALO

Mr. SOMERS. Thank you, Mr. Chairman.

Mr. Chairman and members of the committee, there is a prevailing opinion in both lay and expert circles that a balanced budget is substantially neutral in its effects on the economy. This opinion is fallacious.

The effects of a balanced budget depend on the separate effects of the expenditures and the tax revenues. The expenditures have ex-

pansive effects on the economy to greater or less degree depending on the nature of the expenditures. The tax revenues have restrictive effects on the economy to greater or less degree depending on the nature of the tax revenues. There is no reason to believe that the restrictive effects of the tax revenues exactly offset the expansive effects of the expenditures even when the budget is balanced, that is, when the total of expenditures equals the total of tax revenues.

Examining our present expenditures in the neighborhood of \$72 billion, we find that most of the money is used either for the purchase of goods or services or represents the transfer of funds to persons such as veterans or farmers who are likely to use it for the purchase of goods and services without delay. Funds allocated to lending agencies and some part of interest payments are used for capital loans rather than immediate spending on goods and services but this is a small portion of the total.

On the other hand, tax revenues of \$72 billion—balancing the budget—under our present tax structure will come to a considerable degree from money that would not have been spent immediately but would rather have been made available on the capital market. This is because our tax structure is progressive, drawing in funds that represent the savings of the corporations and individuals involved.

To the extent that the taxes represent an absorption of funds that would have been spent promptly by the taxpayers, the taxation is directly restrictive and offsets the expansive effects of an equivalent amount of Government expenditures. To the extent that the taxes draw into the Treasury funds that would have been made available on the capital market, the restrictive effect, if any, is of a very different nature. If an easy-money policy prevails there are plenty of capital funds available from a variety of sources and the absorption of some of these funds into the Treasury through taxation does not substantially hinder any private capital expansion program since plenty of funds are available. Under such circumstances the restrictive effects of the absorption of capital funds through taxation are very minor and do not begin to offset the expansive effects of the expenditure of those funds by the Government.

Thus, under an easy money policy, the balanced budget as a whole would have a net expansive effect since the expenditures are almost wholly expansive while the revenues are only partly restrictive.

Under such circumstances, the expenditures of \$72 billion might have expansive effects of, say, \$68 billion, while the taxes of \$72 billion might have restrictive effects of only, say, \$50 billion, thus leaving the balanced budget with a net expansive impact on the economy of \$18 billion (\$68 billion minus \$50 billion). There being an easy money policy and plenty of capital funds available, the capital funds released through the expenditures (\$4 billion, that is, \$72 billion minus \$68 billion) and the capital funds absorbed through taxes (\$22 billion, that is, \$72 billion minus \$50 billion) would have little effect on the economy.

It is only when a tight-money policy is pursued that the balanced budget becomes substantially neutral in its impact on the economy. Under those circumstances, any release or absorption of capital funds by the Government has as much direct impact on the economy as funds that are spent immediately in the purchase of goods and services.

Then the full \$72 billion has an expansive effect—both that portion that involves the purchase of goods and services or the transfer of funds to persons who immediately purchase goods or services and that portion which represents funds that are made available on the capital market.

Similarly, the entire amount of tax revenues becomes restrictive—both that portion of tax revenues which represents a withdrawal of funds into the Treasury that the taxpayers would have spent for the purchase of goods and services and also that portion which the taxpayers would have made available on the capital market.

Money being tight, withdrawal of funds from the capital market means a reduction in capital expenditures by private businesses and individuals. This happens only when the Federal Reserve pursues a very tight-money policy, because it is only then that a billion dollars withdrawn from the capital market through taxes will restrict capital spending to the extent of a billion dollars. In all other cases the balanced budget is not neutral and may be either expansive or restrictive, depending on the exact nature of the expenditures and the exact nature of the tax revenues; but with our present types of expenditures and the present tax structure, it can confidently be stated that a balanced budget will have a net expansive effect in the absence of a policy of very tight money.

By an analysis similar to the above, it can readily be demonstrated that a budget deficit is not necessarily expansive or inflationary and that a budget surplus is not necessarily restrictive or deflationary.

Whether the expansive effect of the balanced budget will be inflationary depends on whether we have full employment at the time. When there is substantially full employment of men and resources, the expansive effect will be inflationary. Thus, under conditions of full employment, we may say that a balanced budget will be inflationary in the absence of a Federal Reserve policy of very tight money. The current loosening of the money market by the Federal Reserve means that the balanced budget has once again become expansive. There being some shakiness in the economic outlook and some drop below full employment at the present time, however, the easier money policy makes the budget expansive without being inflationary.

False notions about the balanced budget are partly responsible for the ridiculous situation in which we now find ourselves with respect to the debt limit.

It is gratifying to find that the President has said that the people will not sacrifice security to worship a balanced budget. The defense program has been hampered and money has been wasted because of blind adherence to a balanced budget and an unrealistic debt limit of \$275 billion.

The recent slowing down in payments to aircraft contractors in an effort to keep within the debt limit caused unnecessary layoffs and cutbacks.

As for actual waste of money, we recently witnessed the issuance of what is, for all practical purposes, national debt (through the Federal National Mortgage Association) at $4\frac{7}{8}$ percent, whereas if the debt had been issued as plain, ordinary national debt the rate would probably not have exceeded 4 percent. This is like throwing money down the drain. If we are going to use subterfuges to avoid a rise in the debt limit, let us at least use inexpensive ones, such as

redefining the debt for purposes of the debt limit only so as to exclude some or all of the debt the Government owes to itself, i. e., debt owned by Government agencies.

When the first sputnik hit outer space, we experienced a "controlled panic"; we are now entering a phase of "subdued crisis." Russia has sputnik and muttnik; we have had "sputtering" and "muttering." In view of the President's Oklahoma speech, there is now the likelihood that we will have something approaching a crash program to develop missiles and satellites. What we need, however, is not a crash program but a crash economy. Is it not reasonable to assume that the scientific, engineering and administrative skill that produced the Russian satellites might find expression in any one or more of a dozen different weapons of unheard of power and effectiveness? Only if our entire economy is mobilized can we expect to be able to meet a threat of unknown nature and unknown magnitude. To sit tight on the debt limit under these circumstances is nothing short of a fiscal calamity, or what in the interests of economy we may call a "fiscalamity."

Representative MILLS. Thank you, Dean Somers.

We have been seeking in these hearings some objective standards, in the light of the Employment Act objectives, on the basis of which some guides to future spending policies may be formulated. We would like in the future to be able to examine budget proposals and to say, in effect, that this program meets certain of these standards, that program meets others, while other programs, whatever their other merits may be, do not meet any of the standards of the Employment Act objectives. Could we use the impact of a spending program on stability as I have defined it as a valid standard in the future in looking at spending programs?

Mr. Fackler?

Mr. FACKLER. I didn't know whether your question was directed at me.

Representative MILLS. No; I was directing it at the entire panel, but I am hoping you will volunteer as the first witness.

Mr. FACKLER. Do I understand that you want an evaluation of your original definition of stability as set forth in your opening remarks?

Representative MILLS. No; as I have defined it. What I am seeking is this: To know whether or not we can or should use the impact of a spending program upon stability as a standard by which we may judge the value of that program in the light of the Employment Act objectives. It may have many, many other merits, but this is one factor I'm talking about. Can we use the impact of this program upon stability as a factor in determining its value—the value of the particular program?

Mr. FACKLER. I am still in doubt as to exactly what the question is, sir. I am sorry.

Representative MILLS. Professor Schlesinger?

Mr. SCHLESINGER. I should think that that would only be possible if you could establish a system of priorities for expenditures. In that way you could cut off additional expenditures at the point that they endanger stability. But no specific expenditure could be stated in advance to endanger stability by itself.

Mr. SOMERS. Mr. Chairman, may I suggest that there are some items in the budget that we may regard as postponable or "speed-upable." Those could be used in the interests of economic stability. They should be postponed when there is a generally inflationary condition in the economy so as to avoid competition with private enterprise for the same men and materials. They could be speeded up when there seems to be a slackening in the economy. An example of that might be the highway program.

However, I would not suggest the use of the defense program for purposes of economic stability, because overriding considerations of security should control.

Representative MILLS. Well, I am not suggesting that with respect to any program we look solely at this one standard. What I am concerned about is the development of a series of standards by which we can determine the merit of spending programs. Some standards might apply in some cases and other standards in others. But I wonder if this would be a proper standard for comparison of the value of certain programs; the impact that it may have upon stability.

Mr. ROBESY. May I comment on that, Mr. Chairman?

My thesis, of course, is that the Government cannot create stability, so I should think that using stability as a measure of whether or not the Government should go into something would be a grave error. I do not think that that will carry you a bit forward in arriving at a sound conclusion as to what the Government should go into.

Representative MILLS. Well, Mr. Robey, I wonder if you would agree with me that Government spending can create instability?

Mr. ROBESY. Yes, sir. I think that Government spending can create instability; very definitely. And I think that—

Representative MILLS. If that particular spending does not take place, how can we avoid the conclusion Government spending policy might well tend to create stability?

Mr. ROBESY. Let me make another point. I think Government spending, of course, influences business activity, but influencing business activity is very different from creating stability. So that although they seem like they might be paradoxes, I point out in my paper I don't think they are mutually exclusive, and I think when the Government starts a spending program with the idea of helping economic stability what it is bound to do is cover up a corrective process that might otherwise have been started and that in the long run that Government spending will create instability.

Representative MILLS. Well, now, let me make myself clear here lest you misunderstand me. I have never been one who believed that there was any real reason for spending a dollar of taxpayers' money except that we are trying to render some service which is demanded by the American people—or at least the Congress assumes that the American people will appreciate that particular service, aside from the requirements that we have to maintain a defense program.

So I am not suggesting that we spend money merely for purposes of stabilizing or of bringing about instability, but my point is this: That since the Government already is the greatest individual user of resources that we have in the United States, we must take into account the effect upon our economy of our use of that share of the total resources in the country.

Now, what I am trying to say is this: In determining how we shall allocate the total of the resources that we use, by Government, should we use as a standard in deciding among programs the relative effect that these programs will have upon the creation of instability or stability?

Mr. ROBEY. I do not believe so, Mr. Mills.

Representative MILLS. Thank you, sir.

Mr. MAISEL. Mr. Chairman, I would disagree with Mr. Robey. I think it is clear that we have several possibilities here. As we look around, we find a backlog of several hundred billion dollars worth of goods which people in individual fields feel that the people of the country need. In times of full employment it may well be that we are not willing to push ahead and fill these needs. I am talking about a backlog of school construction, of highway construction, of sewage plants, and things such as that.

Now, to me it seems clear that in a period of deflation or recession the fact that there are unused resources becomes a critical factor in examining this backlog. The Government should consider this fact, if it would increase stability to build these projects, you go ahead and build them on this basis.

Now, when we come to the other point, a period of more or less full employment, I think that it becomes dangerous to say that an expenditure should be cut out simply because it increases instability. I think here it becomes a question of measuring the value of individual programs. If the individual program is a valuable program, then the decision has to be made: Should we raise taxes to cover this program or should we not raise taxes? In effect, saying we should decrease this program primarily because we are in a period of full employment is a dangerous one.

There is a third problem, and it would be very useful for this committee and Congress to look at this point. We have set up certain governmental programs on a basis that leads to instability. I think the housing program is a clear example of this—where in effect the action of the Government has been to destabilize a vital industry. Therefore, Congress in examining its housing acts in the future should pay more attention to this problem and should ask not only, "Is this a good policy in terms of the general welfare?" but "What are we doing to the stability of this industry when we pass this act?"

Representative MILLS. You agree then that Federal spending for certain programs on top of too many individuals privately spending money they don't have for things they don't need to keep up with people they don't like might lead to some degree of instability?

Mr. MAISEL. Yes, sir.

Representative MILLS. Yes, Professor Froehlich?

Mr. FROEHLICH. I think that not only the housing program, should be under consideration, but also the highway program. Highways are, for example, something where obviously great flexibility could be achieved if there were not more but less ahead planning of the highway program, because frequent changes would be an outstanding stabilizing measure.

Generally speaking, the criteria would be the speed of initiation of that program and the possibility of termination of that program. A program is more useful for stabilization the faster it can be started and the faster it can be terminated when we find out it has served its

purpose or was wrong in the first place. That is, generally speaking, the advantage of monetary policy—that it can be turned off and on so fast. In the field of expenditure policy we may have certain expenditures where the same is also true; the expenditure policy to that extent is more useful than tax policy because tax policy moves so slowly, however good it may be if we have the right tax changes. We should consider the possibility of mistakes or of adaptations to new situations, and in that case speed of initiation of the program and speed of termination of the program should be a criterion seriously considered.

Representative MILLS. Yes, Mr. Hickman?

Mr. HICKMAN. I think some of these comments have turned your question around—and I think that was the proper thing to do perhaps.

Representative MILLS. Maybe I should have stated it in reverse.

Mr. HICKMAN. Your original question was: If you evaluate any given spending program, should you take stability aspects into consideration?

And that implies that you have to choose between alternative results of this particular decision you're making and you will have alternative goals.

In the case of defense expenditure, it may be agreed that this should not be evaluated on the basis of stability considerations.

So I think what you ought to ask is: Should you first decide on what your imperative need from the policy standpoint is at the present time and then evaluate specific spending programs in that context?

For example, if you are in a serious depression, you might decide that the pressing need was to expand output and income and then you might choose among possible programs to do this according to how much it is presumed one or the other will accomplish.

So that I should think that what you first have to do is to rate your priorities and then examine your various expenditure items as well as the total budget and the means of financing from the standpoint of meeting those particular priorities rather than the reverse.

Representative MILLS. Well, I am concerned at the moment not only about the development of some standards for long-range determination but for the short range too. If the defense program is to rise in overall outlays, I think I detect very strong resistance already to the levy of additional taxes to defray it.

I do not want us to have an unbalanced budget in view of our prospects for continued high levels of economic activity. I am thinking in terms of the President's statement that there would have to be cutbacks in other programs. Now, what programs will cutback? What standards will be used in determining so that Congress will not be criticized in the future for having used no technique other than just the "meat ax" approach?

Now, should we in the determination of the programs that we cutback look to see if we can develop as a standard for evaluation the effect of a continuation of that program upon stability, coupled with the rise in outlays for defense purposes?

Should we tend to reduce the program that would compete for the very resources that are needed in the expanded defense program or not?

Mr. HICKMAN. It seems to me you still do have two questions though. One is the overall impact on economic activity, and the sec-

and one is how you adjust to the presumed necessary increase in defense expenditures.

Now, if you are not worried about the first impact, then the choice among the various programs would have to be based on some sort of social ranking. That is, if you start off with the presumption that it is necessary not to increase Federal expenditure or to hold the increases in total expenditure down as much as possible, then certainly you will have to choose among programs according to some other criteria than stability.

But I would personally feel that should not be the first assumption that is made. At least it should be made explicitly rather than implicitly. Because it seems to me it might be entirely useful within the next year or two to have an increase in Government expenditure from the standpoint of the stability of the economy.

Representative MILLS. Even though it might result in deficit financing?

Mr. HICKMAN. Oh, yes. I have no objection to deficit financing in principle at all.

Representative MILLS. Well, I do.

Mr. HICKMAN. Well—

Representative MILLS. So I am in a different category. Now, how would you operate if you had that objection?

Mr. ROBEX. May I make an additional comment?

Representative MILLS. Let me make it clear I am talking about deficit financing in time of high economic activity.

Mr. HICKMAN. If you have that objection, you are then placing—and this is the point I was trying to make earlier—you are then placing the objective of a balanced budget on a higher level of priority than the objective of stability. At least, if they are inconsistent—and I think they might be inconsistent in this case.

Representative MILLS. You know more about it in a minute than I know in a day, but we have just been through a period in which we had a great deal of instability reflected in increases in prices. And as a result of studies of this subcommittee we reached the conclusion that a large part of the trouble was due to the degree of Federal spending placed on top of very high levels of personal and business spending.

Now, we hope we are getting out of the woods in that respect, and we do not want to get right back into the same forest and become lost again.

Mr. HICKMAN. Well, it is—

Representative MILLS. We do not want to have to finance a program of defense without regard to the creation of more inflation. We would like to be able to take care of our needs for defense and not create inflation at the same time.

Because, frankly, I have a great deal of horror of a protracted period of uncontrolled inflation.

Mr. HICKMAN. Yes, sir. I am sorry; I perhaps put my point badly. What you then are objecting to is a possibility of a deficit under what you consider to be inflationary conditions?

Representative MILLS. Exactly.

Mr. HICKMAN. Yes. My remark that an increase in total spending in the next year or two might not be bad from the standpoint of sta-

bility was based on an assumption that we might need such increase to offset a decline in private demand in the economy.

Representative MILLS. Well, then, you—

Mr. HICKMAN. And my statement that I did not object to deficit spending per se is based on the assumption that under some circumstances deficit spending is desirable because it does promote stability, namely, in offsetting—

Representative MILLS. Well, you find more difficulty in the economy and in prospects for the next months ahead than I do.

Now, I would go along with you completely if I thought that the pause or breather or sag or whatever we are in was to reach such proportions that such stimulus was required for business and individuals. And I would naturally want that to result in some lowering of taxes or some degree of increase in debt perhaps.

But I just have not thought in terms of that degree of difficulty being ahead of us. I am thinking still in terms of a very high level of economic activity, though not perhaps as high as we had in 1956 nor as high as we predicted for this entire fiscal year.

But under those circumstances I would certainly abhor the thought of us not being able to finance our defense needs either through cut-back of other programs of Government or through additional taxes to avoid deficit financing, the threat being more inflation if we don't.

Yes?

Mr. FROELICH. The type of program which would, I think, conform best to that would be programs with a high built-in flexibility. Such programs we have. For example, unemployment compensation, which is not federally financed at the moment, but something of that type would, of course, conform to that idea.

Some other programs cannot—defense programs especially cannot—conform to that ideal on the ground that the Russians do not cooperate in time with our financial needs. So we do not have the coordination there. Unemployment compensation, of course, is the best type of such program, and others could be found of a similar nature.

Representative MILLS. Well, I recognize that I am a complete neophyte in this whole field, so you good experts can straighten me out if I am in error.

Mr. Fackler?

Mr. FACKLER. Mr. Chairman, I am sorry I misunderstood your question at the beginning. I was trying to relate it to your opening remarks.

On the question of whether or not stability should be used as a criterion, I think it should. I think it should be a secondary criterion, however.

This defense program is going to be a long drawn out affair, and I think the basic decisions should be made on the basis of long-run considerations without regard to the short-run fluctuations: How much additional defense are we going to need over the long pull? And how should it be financed? How much at the expense of a lower rate of increase in consumption? How much, perhaps, by lower private investment?—though there are real dangers over the long pull here. How much can be absorbed out of future economic growth?

I think these fundamental decisions should be made on the basis of costs, benefits, and the proper allocation of resources without regard,

in the first instance, to the question of economic stability. Then, once these basic decisions are made, we ought to be concerned about how stability is going to be affected, particularly in a transitional period when total levels of Government spending must be moved up or down, as is the case when defense spending is increased fairly rapidly.

Here you would have to take into account timing, how long the time lags might be, and a host of other things.

One of the real problems if we take the coming year, 1958—by the way, I agree with you that we may continue to have a fairly high level of overall economic activity even though there is some lull in the rate of growth or some recession which we may now be in—if we jump in now to correct the present readjustment by Government spending, the effects probably would not be felt before 12 months, 18 months. Of course, there would be some immediate impact, but significant effects would not be felt until later. By that time, say by the end of 1958, we may be back with a very strong renewal of inflationary pressures. So that—

Representative MILLS. We definitely will be back with inflationary pressures—

Mr. FACKLER. I think so.

Representative MILL (continuing). If we put on top of present Government spending larger outlays for defense that would create deficit financing in my opinion, because I cannot see that the situation has gotten to the point where we cannot be back where we were early last year with just the little relaxation in fiscal policy and monetary policy.

Now, am I off base on that? Are we beyond the situation that I think we are at the moment?

Mr. FACKLER. I do not think so, sir, though I won't forecast.

Representative MILLS. You agree, then, we can have inflation if we are not very careful?

Mr. FACKLER. Indeed so.

Representative MILLS. That we can right quick?

Mr. FACKLER. But in a period when we expect defense spending to go up, something else has to give—public or private. In other words, we have to sort out and order social priorities in some sort of hierarchy.

Representative MILLS. That is exactly my point.

Mr. FACKLER. And this is a very difficult thing to do; it is difficult because so often it is a matter of taste among different individuals as to what the hierarchy should be.

Secondly, under present budget formulation procedures and the way it's presented, it is very difficult for anyone, an observer, be he a layman or an economist, to know where things can be cut and how to fit particular items into the hierarchy should it be established. All this just from the budget process itself and the way expenditure items are scattered all over the lot. It is very difficult.

I am sure, for example, that there are many places where things could be cut if an independent person were down inside of a Government department and had an intimate knowledge of the operations of that department, its activities, problems, and so on.

There are many places where spending could be cut without substantial harm or without sacrificing too many social priorities. But it is very difficult for anyone to get at them.

Representative MILLS. Well, we are not going to finance any additional increases for defense, in my opinion, out of any savings we make in the elimination of waste in Government, because these expenditures, additional expenditures, for defense unquestionably in time, if the President meant what he said in Oklahoma City, and I'm sure he did, will far exceed any savings that we will make in elimination of waste.

And all of us admit that there is waste in Government, of course, but we are not going to eliminate all of it any time soon.

What he was talking about and what I am disturbed about at the moment is that there will be entire programs that have to be cut back—he says.

Now, what programs will we cut back in this period? That is what I am concerned about. And what standards will we use? Will we use as one standard the impact of that program upon stabilization?

You say yes?

Mr. FACKLER. Certainly, but only as a secondary consideration.

Representative MILLS. I am not talking about defense now. We do not use any standards for that except that we give what money is required in the opinion of the military to prepare us for the defense of this country. We are not measuring that program by any standards of stability except this one I mentioned.

But now the other programs of government that are not defense, we can, I think, apply some standards in determining whether they be cut back and the extent to which they be cut back.

Yes, sir?

Mr. MAISEL. Mr. Chairman, it seems to me now that we have clarified the problem, so I understand it what you have said is that—

Representative MILLS. Pardon me for interrupting, but, as I said the other day in one of these other panels, we are not to be given credit for having looked into the crystal ball and determined ahead of time that the Russians were to send up into the air sputnik and muttnik. We were thinking then in terms of the development of a policy with respect to spending by the Federal Government that would offer some hope in the near future for tax reduction.

Now developments have occurred since Congress adjourned and since this hearing was announced that lead us in the other direction. We are trying now to find out how we can cut back spending by Government in order to avoid the necessity, if defense expenditures are to be anything like as high as we may guess them to be, of further tax increase, which none of us wants.

Mr. MAISEL. In effect, what you are saying, I believe, is that stability requires us to cut some programs, and the question then becomes one of, Does flexibility become a measure which can be used in cutting programs?

Representative MILLS. Exactly.

Mr. MAISEL. It is my feeling, and, I gather, the feeling of several of the other gentlemen here, that this is primarily not the case. When you cut programs you have to cut on the basis of their social priority and not their flexibility. In other words, it would be extreme—and this was actually done in 1933—to fire a high percentage of the teachers of the country. Even though it is easiest in terms of flexibility simply to fire people who furnish services since we immediately get a reduction in the budget, I think that this is an incorrect solution because it is not based on the proper social priorities.

In going through this compendium I find there are several suggestions that look good to me. I have not analyzed them, but it seems to me there are certain statements in there that would indicate that some of the money being spent on water resources may be wasted. Whether this is factual or not, I do not know.

Representative MILLS. You did not say all water resources; you said "some."

Mr. MAISEL. Some water resources. There are certain statements in there saying some of the money spent on the farm program may be wasted. Again not all, but some. There are certain statements in there saying that some of the money spent for veterans' benefits may be wasted.

Some parts of the budget have a lower social priority and so should be cut. But, after a decision has been made to cut, we may look at a program and say, "Would cutting this really do any good? Would cutting this restrain the inflationary situation?"

For example, again dealing with the water-resources problem, we might find that cutting some of these programs would not aid the anti-inflationary programs at all over the next 2 or 3 years, because the resources committed to them may be specific enough so that even when they are released they will only become unemployed. The problem of transferring them out would be considerable.

I think, going back to the whole construction program, this has tended to be the case: That a sharp curtailment for a brief period tends not to be deflationary in the proper sense. It simply releases resources which are not used elsewhere. At this point the question of flexibility does become a secondary criterion.

When we have decided to cut out certain programs we may then find we would not want to cut them because we realize this action would not help fight inflation.

Representative MILLS. Let me turn to Dean Somers, if I may.

Mr. Hickman, I will be back to you.

Mr. SOMERS. Mr. Chairman, I believe that it is necessary to distinguish between those items in the budget that we regard as wasteful and those that are useful but which we feel we can postpone; that is, there are some items that may be completely or partly wasteful, and they should be cut down or cut out in good times or bad and should not be regarded at all as elements in a stability program. But there are a great many items that are postponable.

Representative MILLS. Would you take the time just to give me your idea of what programs we have that are wasteful that should be eliminated and those that should be postponed?

Mr. SOMERS. I believe to a substantial extent the farm-subsidy program is wasteful.

Representative MILLS. I was afraid of that.

Mr. SOMERS. I believe it would be a terrible mistake, however, to cut out the farm program completely.

I was trying to point out that there were some elements in the budget that are wasteful in an economic sense.

It is not only satisfactory, but actually desirable, to subsidize the farm community in an emergency, and the emergency might last several years, perhaps as long as five. But to have a farm program which subsidizes the farm community over decades actually means that we are encouraging the use of resources in a way in which the

free market does not want the resources to be used. We should, instead, discourage uneconomical farm operation. I am not referring to all farms, but only the uneconomical. This would release resources which could be diverted to other uses.

With respect to those items in the budget that might be desirable, not wasteful, but postponable, the prime example, I believe, is the highway program.

Of course, we all like good highways. In recent years there have not been any Government expenditures which have not shown some results in one form or another. Fine buildings are obviously better than old buildings. Fine highways are better than beat-up highways, but the highway program will get going just about the time the large defense program takes hold. It will be highly desirable to postpone a large part of that program.

Unfortunately, school building cannot be postponed to any great extent because of the large growth in the population at the school-age level.

Those, sir, are the two examples that illustrate the point. Perhaps we can say it this way with respect to the part of the Federal budget that is not wasteful but postponable:

Questions of economic stability should not determine whether the Government spends money but when it spends it. The questions of economic stability should not determine how the allocation is made, but when the allocation is given effect, to allude to the expression you used, sir, the question of allocation.

That being the case, we could find substantial items in the budget that would fully comply with the prospectus that you laid out for us, namely, items that should not be cut out, but could be postponed, thereby reducing the impact of the defense program on top of the regular Government expenditures.

If I may have one more second—there was one reference that troubled me a little bit, Mr. Chairman.

I got the impression that you thought that since we probably would have an inflationary spurt in about a year—and I agree that we probably will—therefore we have no problem between now and a year from now.

I believe that there is a considerable basis for more dramatic easing of the tight money situation than has already occurred—"dramatic" in the sense that a drop of a full point or a point and a half in the rediscount rate rather than the gradual process which has been the habit of the Federal Reserve on the upswing, and apparently is going to be the habit on the downswing.

It is a little like easing the pain of the dog whose tail has to be cut off by cutting off a little bit of the tail at a time. We want to restore the confidence of the business community so that for the next 6 months to a year—that is, up to the point where inflation again might become a problem—we do not have such a serious decline so that we hamper the ability of the productive system of the economy to gear into the defense program. A dramatic lowering of the rediscount rate of a point to a point and a half to perhaps 2 percent, perhaps even 1½ percent, and, of course, the concomitant open-market operations would be desirable. This is not in contradiction to what you said, sir. I want to make it clear there is a short-run problem that is different from the problem a year hence.

Representative MILLS. I did not mean to create the impression that I did not think there would be a short-run problem, Dean Somers, jumping that and getting to a year from now.

Mr. HICKMAN. Sir, I would like to make one thing clear about our earlier discussion, and what was said subsequently to it.

I think I agree fairly completely without thinking too much about it that stability should be an unimportant criterion for choosing among programs, and the phrase was used that it was secondary, and so forth.

I would like to point out that I think you are making it a primary choice.

I believe that if you couple (a) need for defense, and (b) an assumption that you have to hold down total expenditures as much as possible, that second assumption is being made because you are invoking the stability criterion with the forecast of inflationary pressures and, having done that, then you are forced to choose among programs. You are forced to cut back some because you do not want to increase the total, and you would not be forced into that choice, if you believed, or thought it possible that you could have an increase in defense expenditures on top of existing programs without creating inflationary pressure—and I think that is something that at least ought to be kept in mind, even if you have adopted an assumption of expansion without any intervening severe contraction. I am not trying to forecast now. I do not know, really, what would happen, of course. You should keep in mind that there will be some induced increase in total tax revenues, which will mitigate to some extent your increase in Federal expenditures.

But, if you start off with the assumption that you cannot increase total expenditures very much, you are then using a stability criterion at the beginning which is forcing you to subordinate other policy goals of nondefense expenditures.

Representative MILLS. You may be right, but I certainly assure you that I was not intending to use stability first. I was thinking that I serve on the Ways and Means Committee and I am getting awfully tired of having to come in and speak of tax increases. That is primarily what I was thinking about. I was in hopes we could finance this program of larger defense outlays without the House Ways and Means and Senate Finance Committees having to come back to the Congress still advocating increased taxes.

We would like to be in a position sometime on those two committees to be able to advocate tax reduction. I was not thinking in terms of stability when I suggested that I would like for us to not expend any more money on the whole than we are now spending, even though defense would rise.

Mr. HICKMAN. We do not need to worry about increasing taxes if you can increase expenditures and not have it be destabilizing.

Representative MILLS. Yes. I know what you mean. Moreover, we get some \$3 billion a year additional revenue which we have been utilizing in the last 2 or 3 fiscal years right quick to take care of additional spending by Government.

Mr. ROBESY. May I add one additional point on this problem? It has not been mentioned.

This idea that the Government develops a shelf of desirable spending, which it calls on in case of difficulty, I do not think will work out

in practice. I think every time that you decide that something is desirable and the money is available you will go ahead and spend it.

The idea of developing a shelf goes back, I guess, to the early 1920's when Hoover made a special study, and he decided there should be a public works shelf built up, and so forth, and it never has worked, and I do not think it is going to work now.

So, I agree with a good bit of what has been said here. I think that we need to reduce spending in the nondefense part of the budget, and **I think the primary consideration should be social desirability, or what will do the least damage socially.**

Representative MILLS. You know we have to include another factor, **to—I will not mention it for the record.** You gentlemen are aware of the other factor.

Mr. Curtis.

Representative CURTIS. First, I would like to get one thing clear. I have gone along with the chairman on a great deal of what he was stating, with one exception. I personally think that before we even move to the area of cutting other expenditures, I am not yet ready to give up on the fact that the military necessarily needs more money.

Although this is not the subject of this particular panel, it has been brought in, and I just want to list some areas that we are going to have to start looking at in the military, if we are going to get anywhere.

No. 1, personnel practices: The Cordiner report brings out some tremendous areas of potential efficiency.

No. 2, use of personnel: Relationship of the Reserve program to the standing military—costs of \$1 for our Reserve in relation to about \$10 or \$15 for the Regular man.

No. 3, the training program: I tried to point out the duplication of vocational education all over the country by the Military Establishment, the failure of the military to utilize skills already in the civilian economy, as was done in World War II, when the Seabees, for example, procured bulldozer operators, directly from the economy, instead of sending boys 18 years of age to bulldozing schools to learn how to operate bulldozers.

No. 4, the relation of the military to the private sectors: All of this has been part of our panel and will be more of our panel discussion.

For example, over a period of years, as the Federal Government has expanded, the main expansion has been in wartime. Yet, after the war the recession has never gone back to the previous level.

There are many, many areas which the Hoover Commission has pointed up where the military are still in the private sector.

No. 5, duplication: Just take the very question on missiles. We have been operating apparently four different programs. Apparently there has not been an interchange of information. Obviously, if that is so—and I do not know that it is—but if it is so you can actually save money and get better results in that area.

No. 6: This is a very important factor that is too often forgotten, and those concerned with the military budget are quite aware of it, and I want to pose it.

The military decision of when to freeze on design for mass production, or whether you are going to continue to perfect your design. That is a military decision. If you freeze too soon you are going to maybe have quantity but not quality—if you do not freeze soon

enough you may have quality but not quantity—but yet our budgets are almost all predicated on the assumption of freezing of design for mass production.

Those are all, in my judgment, every one of those that I mentioned, economic areas and practically none of them have been discussed, and unless we start getting into these things from an economic standpoint, instead of an emotional standpoint, we may well do just exactly what the pressures are in this country right now—just vote more dollars. We will not translate dollars into better defense, by votes. You see, it is not a worship of a balanced budget exactly.

I happen to be in the economy bloc, and do not apologize for it. It is not any worshiping of any balanced budget. It is an attempt to try to get some sense into these programs that we have. Actually there is a lot of nonsense in them, and that is the issue, as I see it.

I could not let that pass without saying that in my judgment, if this coming Congress does not move into these areas, we are not going to solve our problems. Maybe it is a great break that there is this much public emotion on the subject, if we can only direct it into the right channel and not just go ahead and vote more money on that assumption.

Incidentally, that brings to mind one thing I would want to say:

The remarks that Professor Fackler made on page 332 of his statement, in reference to compensatory spending, where he says:

Those who want minimum manipulation of Government spending must face the largest deficits. Those who honestly advocate compensatory spending must be prepared to fight vigorously for massive reduction of Government spending during inflation.

It is this vigorous fighting that I hope has been going on—by some people, at any rate—in the past, and maybe, as the chairman suggests, is going to have to be done now.

Now, that vigorous fighting must go into these military areas, too. I could not agree more, that we have to take defense as an indispensable item, that we cannot consider these other factors that we might consider in deciding whether to engage in other Federal expenditures, or not, but certainly one factor we must take into consideration even in military expenditures is one that I think everyone on the panel agreed, and that is, if we are going to spend it, let us get our dollar's worth, and these are the items there.

Now, I want to go on, if I may. I made a speech. I want to go to the subject of this particular panel, and I want to try to bring it back into focus from my own thinking.

We start out with other panels in discussing various aspects of Federal expenditure and among things we consider have been things like social need and then the relationship, at the Federal level, for expenditures all through to the private sector, and we try to weigh those a bit.

Or, if you decide it is a Government rather than a private sector, at what level of government? We go into that.

The panel this morning tried to see what types of Federal expenditures might be promoting growth: those that might be increasing the growth and those that might be actually a deterrent to growth, as just a factor, not an overwhelming one. Probably the first factor which will always be the primary one, is that needs that must be met.

So this afternoon we are on the subject of stability—whether these various Federal expenditures will promote stability or would they be neutral or would they tend to produce instability?

Now, so far I think the panel has very ably—and the papers did too—discussed the thing this far, as regards to the total picture, the total Federal expenditure. A great deal of emphasis has been placed on timing, which probably is as important a factor as there is.

But what I want to now dig into is whether or not we can break down various types of Federal expenditures to see whether some are those that tend to be stable, those that tend to promote instability, and those that may be neutral. I think one of the papers that dealt with interest payments, suggests such a breakdown. The overall was, I believe, that it was stable, yet I would ask this question—and I think it was brought out in the paper to a degree: if it comes down to who holds the particular debt—I notice your figure there of \$77 billion that are held in trust funds and to the same effect in the Federal Reserve. That tends to promote stability, that kind of expenditure. Is that right?

Mr. SCHLESINGER. I would say so.

Representative CURTIS. How about the amount we have in E-bonds, for example? I remember before the Ways and Means Committee, when we discussed the question of raising the interest rate on E-bonds, we got into the question with the Treasury officials as to the proper balance and the desirability of trying to keep a certain portion, and a fairly large portion of the debt.

Representative MILLS. \$41 billion.

Representative CURTIS. \$41 billion—of that in that kind of Government bonds.

Of course the E-bonds are held for a period by the statutory requirements and are pretty well diversified around among our citizens. I suspect the interest on that would tend to go into consumption to a degree, certainly a great deal more.

Of course, you do not get your interest immediately, which is another reason for it, even when they are cashed. I do not know if there are any figures on that, but would you say that the Government expenditures in E-bond interest tend to promote stability or is that neutral or would you say instability.

Mr. SCHLESINGER. There seem to be two goals in the E-bond campaign. The first goal is to have widespread holding of the Federal debt; that is, the mass of citizenry holding a large proportion of the debt. The other goal is stability. Whether the stability aspect is relevant or not depends upon the kind of economic climate which exists.

If you have an inflationary economic climate, the sale of E-bonds tends to cut down on consumption and therefore is very advisable. The money is well spent.

On the other hand, it is difficult to turn on and off E-bond campaigns so that when you run into a business decline the difficulty is that if you request the public temporarily to stop buying E-bonds, that this may undermine the campaign in the long run.

If you succeed in continuing to sell E-bonds this may cut into consumption, therefore, somewhat accelerating the business decline.

Representative CURTIS. So part of what you are saying in this area is that timing would probably outweigh the actual expenditure itself. In other words, that particular one might be creating instability or it might be the other, depending on the other economic climate?

Mr. SCHLESINGER. If we are to assume in the long run we are faced with an inflationary problem then maintaining a program to sell E-bonds is highly desirable overall. If we are to be faced with deflationary pressures in the long run, perhaps the money is not well spent.

Representative CURTIS. Let me move to another area of expenditures.

This morning it was pretty well agreed that one area of Federal expenditures that promoted growth was expenditure in education. I wonder if that is, from the standpoint of stability, neutral or does it create more stability or what? Does that, too, depend on timing?

Mr. SCHLESINGER. I am afraid we may not be impartial observers on the question.

Mr. HICKMAN. May I respond?

Representative CURTIS. Yes.

Mr. HICKMAN. I think any of these things depend on timing in the sense that stability is not just one thing. You have the question of whether you are in a general expansionary or contradictory phase of the business cycle, and then you have the question, when you are in an expansionary phase whether you are primarily raising prices or real output. And with respect, for example, to education expenditures, these, I assume, are a sort of a rising component of certainly State and local expenditure, and probably Federal expenditures. That means they are tending to rise during periods of expansion, and to that extent helping to contribute to general expansion, and would be destabilizing if you were worrying about inflation, just as any other increasing expenditure would be.

On the other hand, it would probably continue to increase during contractions. Certainly State and local public-school salaries have, during mild contractions of the postwar period. In those periods it tends to offset the contraction elsewhere in the economy.

Representative CURTIS. Let me interject some more, so you can take them into consideration.

For instance, social-security expenditures or the loan-guaranty type or the direct purchasing, and things of that nature—in other words, you do not think that the stability aspect or, let us put it this way—you think timing would affect any of these Federal expenditures rather than whether the expenditure itself, might create some stability or instability?

Mr. HICKMAN. In the case of your social-security payments, there are two general types. One type is unemployment benefits, which are contracyclical automatically, and tend to be stabilizing. Other insurance, increases in old-age pensions and that sort of thing, tends to be

destabilizing during expansions and stabilizing during contractions, because the payments continue to increase. So it is a matter of timing, not only in a sense of when discretionary action is taken, which is one meaning of timing in fiscal policy, but it is a matter of timing in the sense of what the general economic conditions are, if your expenditures are determined on other than deliberate contracyclical criteria. In other words, if your expenditures are determined on the basis of criteria that does not take deliberate account of the general state of the economy, then they tend to be stabilizing or destabilizing almost accidentally, depending on what the economic conditions are.

Representative MILLS. Mr. Maisel?

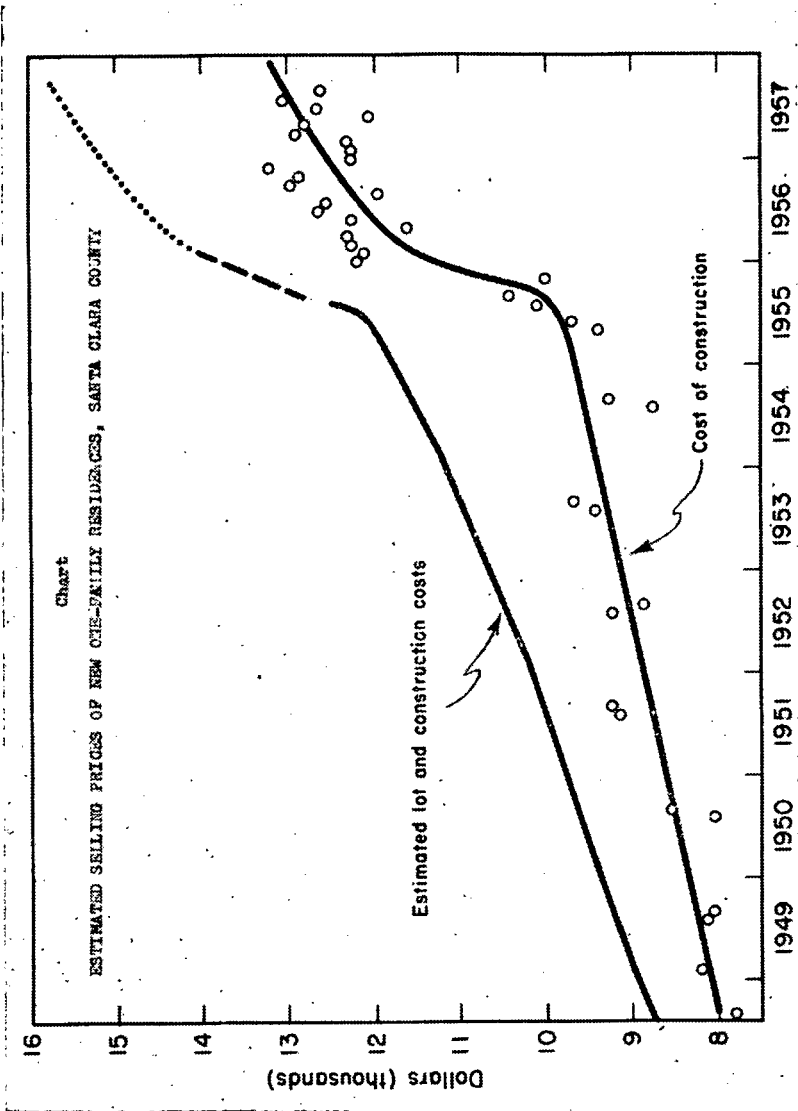
Representative CURTIS. Mr. Maisel, before you answer, I want to throw one other ingredient into this. Remember, some of these are programs that are fixed in the budget. There is nothing Congress can do about veterans' benefits, for example, and social security.

Mr. MAISEL. You asked about loan guaranties. It happens when I left my office one of my colleagues, Mr. Jack Lessenger, gave me some interesting charts which I would like to pass up to you.

Representative CURTIS. I wonder if we might have them in the record, Mr. Chairman?

Representative MILLS. Without objection they will go in the record.

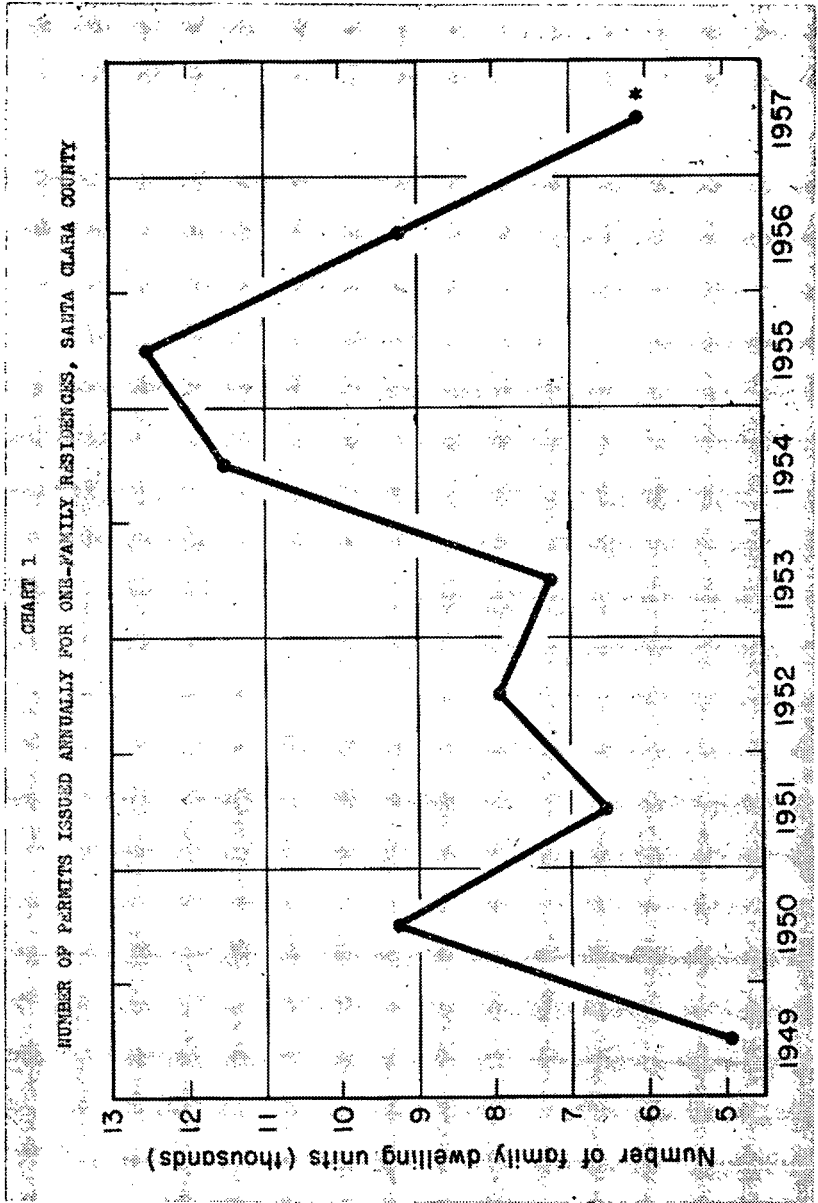
(The information referred to follows:)



Source: Cost of construction—U. S. Bureau of Labor Statistics, unpublished data. Preliminary, subject to revision.

Raw land—see text.

Land improvements—\$1,250 per lot for 1954 from Paul F. Wendt, Implications of Recent Cost Changes for the Housebuilding Industry, Bay Area Real Estate Report, Second Quarter 1956. Other years estimated using 15 percent change in price per year, as derived from data in Urban Land Institute, Lower Land Improvement Costs Reduce Price of Homes, in NAHB Correlator, August 1952.



*Estimate based on $\frac{\text{first 7 months 1957}}{\text{first 7 months 1956}} \times \text{total for 1956}$

Source: M. D. McGregor, Residential Construction Activity in the Bay Area, Bay Area Real Estate Report, various issues.

Mr. MAISEL. I think a mistake is frequently made when it is assumed that by cutting demand you necessarily cut inflation. This mistake, I think, is demonstrated in the housing program. If you follow chart I, which is for a particular county, Santa Clara County, Calif., you see that there have been rather sharp fluctuations in the housing program, which have actually been very closely related to the loan-guaranty program and Federal Reserve policy. The main period I want to talk about is the period from 1955. Previously housing starts rose from 5,000 to between 12,000 and 13,000.

Then in 1955, money got tight. While it has never been officially stated as the policy, I think it is clear in terms of what happened, that our Federal loan guaranty program shifted to the idea that it would be stabilizing to cut back on Federal guaranties in the housing market.

We see here that as a result of this policy, housing starts in this area fell from about 12,500 to about 6,000. In other words, immediately following the tightening of the money market and the disorganization of the Federal loan guaranty program in this area starts fell roughly in half.

I think this was done on the assumption that if you cut demand you would move to the left on a traditionally shaped cost curve to a lower-cost situation. As a result, you would end up with lower demand and lower costs, and this, therefore, would be deflationary. You would be fighting inflation in this manner.

If we look at the second chart, we see the contrary may well be true. We see that what actually happened in this area was that from the summer of 1948 to October 1955, the average price of the houses started in this area went up $3\frac{1}{2}$ percent a year; in other words, while demand was going up prices went up slowly. In reality, prices went up less than income, so that the people of this area were better off in 1955 than they had been in 1948. Their incomes were going up faster than the price of housing.

When the loan guaranty program was cut back, supposedly to lower demand and fight inflation, we see a most amazing thing, the average price house started in this area jumped up 30 percent in less than 2 years. This I think illustrates a very important factor that we have to take into account, which probably applies to this whole market.

Here we have a major market that is dealing with durable goods. People believe that we can bring price stability into this market by changing the program and fluctuating demand slowly from one year to another. I do not think this result follows. I think what happens is that changing the program disorganizes the market. As a result, even though demand goes down, costs are likely to rise rapidly. I think this is what we have seen in the last 2 years.

In examining the loan-guaranty program, as well as urban renewal and other similar programs, Congress should ask, if we cut the demand here, will we really lower prices or instead will we disorganize the market only to see prices jump up?

Representative CURTIS. I appreciate your remarks. Particularly because I could not prove it, because I am not an economist, but I have had that feeling and argued against the policy, particularly in this area of homebuilding. I did not see it the way those in business did. It is very valuable data, as far as I am concerned.

Mr. FROEHLICH. I think that old-age social security has a considerable amount of flexibility in the terms you talk about in stabilizing, mainly for the reason that now people over 65 continue to work and do not draw social security. If the economic situation would become worse, and if it were quite worse, our social-security payments would increase considerably.

In education I am afraid there is little flexibility because that depends on the birthrate so many years before the occurrence, and therefore there is no economic relationship whatsoever possible. We will be in for certain problems in education. We already know that now, because of the children born in the last decade. We will have the same problem in the labor market, when the new large groups come into the labor market that were born in 1943 and 1946. This has to do with things of the past and cannot follow any stabilizing pattern.

Representative CURTIS. There is one reverse question.

Just as this morning the point was asked how these various expenditure programs might affect growth, then the counterquestion was asked:

"What was the effect of growth on the Federal expenditure programs?"

There were two different answers. One thought that the overall growth would tend to cut back Federal expenditure programs, again breaking it down into different types. Another, that it would increase it.

Now, I am wondering if there was a reverse here. If stability is maintained, how does the stability affect Federal programs? Is that a neutral effect or is there an increase or decrease?

Mr. FROEHLICH. If we have, for reasons outside the programs, a great degree of stability, we have, of course, less expenditures because certain expenditures will be necessary only in time of depression.

On the other hand, if we have stability and little growth we may have more expenditures for that reason. Growth and stability are somewhat conflicting, but not always conflicting.

Representative CURTIS. We are trying to dissect here, and just to look at the factors. It is very difficult to dissect and take stability out and look at it.

From that standpoint, for instance, one of the points that military expenditures will increase is partly due to whatever inflationary effect occurs in the cost of these items and stability would tend to eliminate that factor of the increased expenditures but there may be other factors that would counteract that.

Would any of you care to comment? Do you think that the general stability if it is maintained would affect in any marked way the Federal expenditures?

Mr. FACKLER. Congressman Curtis, I agree with the remark that you just made. Certainly, during inflation, Government costs, along with other costs, are going to rise; therefore, instability will tend to increase Government spending, just the same as in periods of deflation or depression certain types of relief and other expenditures will have to be made, thereby also increasing Government spending on the downside; so there is a relationship, certainly, between stability and the volume of Government spending. This is one of the really tough problems, especially in periods of inflation. It is awfully difficult to

retrench on Government spending in the face of rising costs, when everything costs the Government more. It is hard to cope with.

Representative CURTIS. That just creates some of this problem of this theory of deficit financing, that you pay for then in the next rise. You may not be able to so easily pay for it in the next rise.

I have one other question, just somewhat of a detail, but I notice in Mr. Hickman's—not in the paper itself, but in his short paper—on the top of page 3 he is discussing, in the first instance, to diminish fluctuations of demand caused by innovations, changes in tastes, variations in population growth, resource discoveries, and war, to name some important sources of disturbance.

And this is in regard to investment problems, and I just made this little note: How about adding inflation as an important source of disturbance, particularly in this area of capital.

It strikes me that one of the main factors that lay behind this tight money situation for capital investment was our tax structure in relation to the replacement needs of business.

Under the tax structure we permitted only the amount of costs in dollars, not present inflated dollars, to be put into the depreciation account.

Of course, when the time came for replacement—and incidentally, of course, innovation—the fact of obsolescence accelerated that whole thing, created a tremendous demand for additional investment capital. Business had only half the amount in their depreciation account needed for just replacement, let alone improvement. I add the thought that there seemingly would be a lag when that need for that additional capital would come. In other words, inflation hits, you say, in 1946, but the time when you would be replacing, taking the economy as a whole, would probably be 7 or 8 or 10 years later.

Now, I wonder if you would comment on that, if that indeed was not a very basic source of disturbance and would it not continue to be?

We talk about inflation so often without reference to the tremendous economic upheaval that it causes.

Mr. HICKMAN. You give me a difficult question, and it is one in which I am afraid that I am not prepared to offer any very firm conclusion.

My remarks that you quoted have to do with a notion that you can get shifts in investment demands that are independent of the current level of economic activity for these reasons.

Representative CURTIS. That is what I am taking, shift in demand, because this is demand for additional investment capital and it has come because of a combination of our tax laws on depreciation of capital.

Mr. HICKMAN. Yes. The additional demand that you are speaking of is sort of an additional monetary demand, is it not—that is, replacement demand of businesses itself. It is not a sort of physical thing you want to take into account?

Representative CURTIS. That is right.

Mr. HICKMAN. When you speak of it having been added to by this slower growth of depreciation allowance than prices.

Representative CURTIS. When it creates a demand for investment capital, that is the point. Actually, I think what really happened is that the Federal Government has been taxing capital, and we have taken capital under our depreciation laws, and now that capital has

to be replaced. So we have created this tremendous additional demand. That is why I thought it was in proper context in your paper, and also as properly brought in here where we are discussing stability. If inflation creates these economic upheavals, maybe we ought to be paying a lot more attention to it in these overall expenditure programs than we sometimes do.

Mr. HICKMAN. Inflation certainly does create economic problems.

In connection with this particular question you have, I still think it is necessary to distinguish between the fact that replacement demand would exist and the fact that, when you say there is additional pressure on capital resources as a result of a lag in depreciation allowances, you are essentially saying there has to be more appeal to outside capital markets than to internal financing of replacements out of depreciation quotas. Whether that implies any greater total of monetary demands for funds, I do not really know.

Representative CURTIS. Oh, yes.

Mr. HICKMAN. It is a complicated question. It means, in effect, that businesses are financing replacement expenditures as well as any other expenditures they are undertaking, not only out of their own savings, but out of outside savings.

Representative CURTIS. That is right.

Mr. HICKMAN. They are going to be doing this at any given time anyway and I do not know how much difference your particular—

Representative CURTIS. Theoretically, if their depreciation accounts have in them the dollars that are needed to replace the equipment that is worn out, then they do not have to have any additional capital. They put it in depreciation accounts. But the accounts only show half the dollars necessary due to inflation. Then they have to go and get those additional dollars from the market. In my judgment that was the real thing—and I am no expert at all—but it seemed to me that was one of the basic factors that lay behind the tight-money situation.

Mr. HICKMAN. It would appear to me, sir, still that there are two questions. One question is how much they are spending on capital equipment, and that is the question that is directly relevant to the current volume of expenditure on output, and, therefore, inflationary pressure.

Now, given the amount they want to spend on capital equipment; that is, given the physical replacement demand, they want to undertake, the question is: How do they finance this particular expenditure?

Now, if they finance it out of depreciation allowance, by which we mean working balances they have accumulated in past periods, and have available, this is one method of financing the expenditure which will not interfere with financing other investments from outside sources.

On the other hand, if they have to go into the capital market to finance these expenditures, it might or might not interfere with other investments, and, as I say, it is not really clear to me that the lag in replacement quotas really affects the volume of current investment expenditures undertaken very substantially; I am not so sure. It certainly affects the profit conditions of the companies. But I just cannot see by what reasoning you will argue that replacement expenditures are greater than they otherwise would be.

Representative CURTIS. They certainly are in dollars, and require an additional amount of investment dollars.

Mr. SCILLESINGER. It might or might not affect the demand, but it certainly would affect the supply. This was the case from 1946 through 1948; certainly during the period of rapid inflation.

What we were doing at the time was taxing a kind of spurious profits, profits which did not exist, and perhaps we came close to taxing capital.

I think that Dean Somer's paper does point to the problem involved here, that you are shifting the tax burden and that instead of striking at income funds you are striking at capital funds, and that would tend to diminish the supply of capital and certainly would both decrease the amount of investments and push up the rate of interest.

Representative CURTIS. Yes.

Mr. SOMERS. I just wanted to remark that I agree with Congressman Curtis that inflation can be destabilizing, but I would like to suggest that the control of inflation can also be destabilizing.

I believe, for instance, that the Federal Reserve held on to its tight-money policy about 1 month too long. Now, it may seem to us that 1 month is not a lot, but one thing about monetary policy is that it is good at contracting activity, but it is not terribly effective once a decline has set in and has progressed to any considerable degree. This is based on the economic law that you can lead a horse to water but you cannot make him drink. When there is lack of confidence and there is a recession you can make money as cheap as you want to, but people are not going to borrow it, because one thing about borrowing money, you are expected to pay it back. Now, I repeat: If the Federal Reserve had modified its tight-money policy about a month ago we would not have had the decline in the various indexes that we now see. If I may, may I make some remarks about your reference to efficiency?

Representative CURTIS. Surely; yes.

Mr. SOMERS. Even though perhaps it is not within the scope of this committee.

Representative CURTIS. We are happy to have it.

Mr. SOMERS. Of course I am in favor of efficiency, and I do not know anyone who is not. I agree with you that we should put sense into defense spending but I would urge that we not hold up the defense program while we put sense into it. I believe that nothing could hurt our security program more than to let loose at this time a horde of efficiency experts on the Army, the Navy, the Air Force, private contractors, and subcontractors. I believe that what Congressman Curtis has pointed to is important, but it should be effectuated side by side with an enlarged defense program. In other words, you probably will have to make increased appropriations, sir, and at the same time encourage efficiency, but not hold up the enlarged defense program while you clean house, because nothing can disrupt an organization more and temporarily reduce output more than a thoroughgoing efficiency program.

If I may make a comment on something that the chairman said a little while ago on another subject—or would you prefer to—

Representative CURTIS. No; I might say on that particular thing—

Mr. SOMERS. Yes, sir.

Representative CURTIS. The tragedy, as far as I am concerned, is that a lot of this detail of what could be done in the Military Establishment has been before us for many years now, and those of us who have been trying to do something in that area have been pretty discouraged. That is why I said maybe with the emotion of right now and the need for the results maybe we can start moving in here. I am satisfied we can get results pretty quickly; it does not take too much effort to put into effect a lot of these personnel recommendations, nor was it necessary, I might say, for the military in their recent cutbacks to immediately move in and cut back on their Reserve program, which they did. Actually, that is going to be a costly cutback, in my judgment, but that is the kind of thing I mean. I could not agree with you more that we cannot afford to let our defenses down while we reexamine the Defense Establishment itself. But there is a lot of this that has been blueprinted, I believe, and is pretty well accepted by many people. The Hoover Commission has done thorough work on this thing, but there has been work done by other groups, too.

Mr. SOMERS. Yes, sir. Regarding a comment of the chairman that he was interested in tax reduction, but apparently it is not in the cards because of the inflationary spurt.

Representative MILLS. Let me straighten you out on my thinking about that.

I made a statement before sputnik and muttnik that we were already spending far in excess of what we had estimated, some \$500 million, even now in excess of the estimate of \$72 billion in October by the Bureau of the Budget, and our revenues under existing rates of tax would not stay at the \$73½-billion level; but actually our revenues, if changes did not occur between now and the balance of the year, were at an annual rate of \$800 million, or \$1 billion less than that. So there just was not anything left, if we could maintain a balanced budget.

I wish we could reduce the budget in fiscal 1958, and the projection of 1959 would have to improve materially if we were able to reduce taxes in that fiscal year and have a balanced budget. But now, with the advent of this proposal for some larger defense outlays, now the possibility appears even less. That was what I had in mind.

Mr. SOMERS. Yes, sir.

Representative MILLS. And I am still hopeful that we can.

Mr. SOMERS. Because of the prospect of an inflationary situation developing in the latter part of the calendar year 1958—I hope it is earlier if it reflects an increased defense program—it probably would not be wise to consider a tax cut at this time for the fiscal year 1959; but I would like to suggest that you still can do something about tax cuts retroactively. It might not be unwise—in fact, I would recommend that there be a tax cut for the calendar year 1957, retroactive for that year, of about \$1 billion.

Representative MILLS. Even though we do not have that much surplus.

Mr. SOMERS. For the calendar year I think there might be that much surplus, because the personal incomes have stayed up for most of the calendar year and corporate incomes have also stayed up for most of the calendar year.

Representative MILLS. Just stop there just a minute, if you will, and let me throw in another shot.

Would you do that even at a time when the Government situation is such that we have to ask our friends who deliver airplanes to us to hold up on the presentation of their bills in order that we can stay under the \$275 billion debt ceiling?

Mr. SOMERS. Sir, as I pointed out in my paper, I think it is most unwise to allow these important questions of security and economic stability to be determined by a wholly artificial debt limit of \$275 billion which essentially means that the Congress does not wish to allow itself the freedom to appropriate money when it thinks it is wise. No appropriation can be made unless Congress approves it. Why should Congress also impose on itself and the administration a debt limit?

It would be different if the administration could appropriate money and you have to put a limit on the administration. But no money can be appropriated unless the Congress approves. Why should the Congress hamstring itself as well as the administration by a debt limit?

Representative MILLS. I will not argue with your theory at all, that probably we should not hamstring ourselves with a debt ceiling, but the facts are that we have a \$275 billion ceiling and we have to operate within that ceiling until the Congress raises the ceiling, and I do not detect much disposition in the Congress to permanently raise it, although there may be some necessity before we get very far ahead of raising it for some particular period.

I think the important thing for everyone to recognize, as well as the important thing for Members of Congress to recognize of course, on the other hand, are these factual situations that we have to deal with here; and that, though we can look into the realm of economics, social welfare, and all of these other facets that go to make up all of our thinking, primarily Congress is motivated by political considerations. We know that. I do not mean political considerations in the lowest degree; I mean political considerations in the highest degree.

Many of our decisions, of necessity, have to be made because of recognition of political implications.

As one of our panelists said yesterday, as I recall, in answer to some question I raised, people make those decisions, and we in the Congress abide by those decisions, and we must be practical enough to recognize that there are decisions made—that we follow—elsewhere than just here in the Congress.

I think that is a fair statement.

Mr. Curtis?

Representative CURTIS. I am finished.

Representative MILLS. I did not want to prolong this, getting into a discussion of politics in the highest or lowest degree.

Mr. FACKLER. I should like to summarize some ideas I jotted down in response to your original question which was based on the assumption that defense spending is going to have to go up, and we want to finance the increase by curtailing present expenditures, at least temporarily, until the economic growth can pick up the difference, we will say. We do not want to finance it out of consumption, it is assumed, because this would involve an increase in taxes; and we want to reduce taxes if possible, or at least not postpone tax revision indefinitely. Now clearly, to some extent, some government expendi-

tures have to be curtailed, and you wanted advice on what criteria would you use?

Representative MILLS. No. I do not want to be misunderstood by anyone. I was just asking the simple question of whether or not, in looking at these various spending programs and in trying to determine what to do, we could use as a standard the impact of that particular program upon stability, in determining its relative value—whether or not it should be cut back, eliminated, or continued.

Mr. FACKLER. Yes, sir; the stability problem—but you also asked what criteria? I just wanted to summarize my thoughts.

I suggest four things. One is what the panel this morning pointed out—the growth impact.

Certainly for a prolonged defense effort you want to retrench on expenditures that affect growth less. Some retrenchment in certain areas might even improve growth, as Dean Somers pointed out. Take transfers such as farm subsidies, many other things which you have probably heard about many times in these hearings already.

Second, there are those things, which you heard mentioned by this panel, those things that can be postponed. Highways are a case in point.

Third, I would suggest that those programs having a low social priority. Now, I realize this is a matter of taste, and, in part, a matter of waste—how people evaluate what is wasteful and what is not wasteful, and what has a high priority and what has a low priority.

Fourth, I would agree with Professor Maisel that there are some types of expenditures which, when cut back, do not release resources very readily, at least in the short run. Here cuts probably do not have much effect in releasing resources to finance defense. Where resources are committed for a long term, where they are very specialized or have a small degree of mobility, at least in the short run, they will not be immediately released. This might be a fourth criterion—though it can easily be misused.

But there certainly are areas for reduction, particularly in the first category, I think. In the growth category—those expenditures which affect growth less—can give way. After all, the growth factor, for defense program, is probably most important, as well as for other reasons.

There are a great many types of programs that can be cut. There are things like the farm program, veterans' benefits, particularly for non-service-connected disabilities and the like; there are many things that are done on the local level, such as building sewage disposal plants; and particularly there are new proposals for extending Federal programs—aid to depressed areas, and that sort of thing. Much can be eliminated. I think such things as the postal deficit might be mentioned. In other words there are a good many places where retrenchment can be made without hurting growth while actually improving allocation of resources and improving growth prospects.

Representative MILLS. We tried to point out in the subcommittee report last June that there are certain built-in factors in many of our programs that will of necessity bring about increased costs for those programs in a rising economy and a growing population.

We called attention to the fact that those programs could not be reduced merely by the Appropriations Committee and the Congress reducing amounts at a specific time that would be made available for

them because of the fact that when the programs exist, we commit ourselves—or when they are created, we commit ourselves to do certain things moneywise and that it was, in the opinion of the subcommittee, necessary, I believe—I would say we went that far, that the Congress go back and reevaluate programs, if we are to reduce the cost of government, and make a study of these programs.

Now, we've got the highway program. We mentioned that several times. We are fixed—we are committed definitely under existing law to the expenditure of certain moneys in certain years.

We tried to finance it so that it would not cost anything out of the General Treasury. It is questionable now whether we have or not, because of the rising costs.

But, in order to do anything about the road program we have certainly to go back and enact legislation, to delay it.

If we do not want this program to occur at the same time, as Dean Somers points out, that heavy outlays for defense may be occurring, it would be necessary for us to spread it some way or to delay it in certain areas by changing the actual provisions of existing law.

Now, until we can bring about an awareness of the needs of reevaluating all of our programs in the light of possible changes, diminution of waste, greater economy in operation of the program, getting the administration—and I am not talking politically—getting the administration program into a more realistic vein, as Mr. Curtis desires and I desire.

Until we do all these things, study the impact of the program, determine whether we want that particular impact, we do not have the answer.

Now, in certain years we have not reduced any spending of Government, because if we are committed to spend \$1 billion in a fiscal year, and when the budget comes out the Congress reduces that to \$500 million, we have not made any savings, because the Department will have to come back subsequently in a deficiency and obtain the other \$500 million.

So the effect of our action in the last Congress of reducing the President's budget of a total of \$4.9 billion did not accomplish the objective, in spite of the fact that we have this backlog expense—did not accomplish the objective with respect to certain specific programs for which there was no backlog.

Do you see my point?

Mr. FACKLER. Yes, sir. Very clearly.

Representative MILLS. So I think the subcommittee is still of the opinion that those studies will have to be made before there can be any real saving or retrenchment in any of these programs.

Now, we are endeavoring in this study to try and find out some standards by which we can make recommendations to the other committees of Congress that have legislative responsibility, standards that could be used as guideposts in determining just which of these programs, from the point of view of the Employment Act of 1946, we want them to consider along with other standards, and other facts that have to be considered.

Mr. FACKLER. This raises two further points I would like to make.

First, there is the question of private as compared with public expenditures, which I think was raised this morning. Certainly many public expenditures are more important socially than private

expenditures and vice versa. I don't want to get into that question of where the marginal dollar is best spent. I do want to point out that one of the serious problems, as far as public expenditures are existence the programs that are no longer desirable; once started they are irreversible. Since you don't have any process to grind out of existence the programs that are no longer desirable; once started they lead a life of their own, so to speak, and are not reversible, as is the case with private spending decisions, because of the pressures and reevaluations of the market.

Representative MILLS. There is one thing we can be certain about in Government, and that is that there is no such thing as a temporary program.

Mr. FACKLER. That's right.

Secondly, this committee is doing a real service in advising other committees which have legislative responsibility, that if at all possible, and where possible, they should try to get flexibility into their legislation initially, at the beginning, in order to give the Congress more control over expenditures and the rate of expenditures and the timing of expenditures. This is a very tough job, I know. I touch on the issue in my paper. I don't have any solutions, except to say that if we just make the legislative committees more aware of this problem, then we have accomplished something. This subcommittee and the Joint Economic Committee is performing a real public service.

Representative MILLS. Do you have anything further?

Representative CURTIS. No, Mr. Chairman.

Representative MILLS. Mr. Hickman, did you have another statement to make?

Mr. HICKMAN. I would like to comment on two points that were raised earlier. Mr. Curtis asked me a question, and I have had a little time to think about it. The question was: Isn't inflation a disturbing force?

It certainly is, but you raised it in connection with a particular problem.

If prices of current capital assets rise, and you want to replace the same physical quantity, you have to spend more money, and if your depreciation allowances are based on original cost, then the amount that you have to spend is greater than the amount you have accumulated. So you have to appeal to outside sources.

Representative CURTIS. That is right. I do not want to interrupt your thinking, but I put in the other factor which I am interested in, that I thought there was a lag, too, when our economy as a whole turns over, when it replaces its capital equipment, which I suggest, maybe, is around 8 or 10 years.

Mr. HICKMAN. I do not know about that particular question. But to go back to the first one again, then I think you observed that the tax system was one of the things that forced accounting on an original cost basis, and, therefore, it was partly responsible for this need to appeal to the outside markets.

The only point I want to make in connection with that is that if you assume that you would have raised the same total tax revenue, then if you did not raise it in a form which impinged on corporate profits, through this accounting thing, you would have had to raise it somewhere else. So you have to take some account of the fact that the

outside sources of funds would be smaller from, say, consumers or other private sectors of the economy. Because your taxes would be larger there, you offset the fact that they would be smaller in the corporate sector.

In other words, it is not just as if you had the effect going in one direction. You still have to finance the same amount of replacement expenditures. If you have to appeal to outside capital markets, because of the present tax system, it may be that if you had an alternative tax system, the outside sources would be smaller in amount. When you reverse it, the outside sources are now bigger in amount and, therefore, you get no net effect in the capital markets when you include in the capital markets internal as well as external sources.

Representative CURTIS. I think what you are really pointing out is that inflation does a lot of distribution of purchasing power.

Mr. HICKMAN. That is right. It is essentially on the question of who finances the inflation. Essentially, there is a redistribution question. I thought you were also dealing with the general question of total inflationary impact. What I am trying to point out here is that it might not be any greater, although the distribution of the burden is different.

Representative CURTIS. I have maintained the point that inflation in essence is a tax at least, with the Federal Government being in such a debtor class as it is. It transfers purchasing power from the private sector to the Government.

Mr. FROEHLICH. From the point of view of taxation and depreciation reserves, the overlarge taxation which comes about because we have an inflation, and, therefore, we cannot depreciate enough, is, on the whole, stabilizing, because, in a prosperity or in an inflation when prices rise, taxes get higher; and therefore we stabilize by our method of handling accounting and depreciation. We tax higher in the upswing, and we tax less in the downfall due to the way we handle depreciation in money values and not in real values. I think this is a stabilizing feature.

Representative CURTIS. I don't quite follow that, because actually depreciation is the amount that is deducted from the tax, and if your amount is fixed on a preinflation dollar value—

Mr. FROEHLICH. You pay more taxes.

Representative CURTIS. You pay more taxes. I see what you mean.

Mr. FROEHLICH. In inflation, you pay more taxes, and this is what we want, and in a deflation you pay less. That increases flexibility, I think.

Representative CURTIS. Yes.

Mr. HICKMAN. The second thing I wanted to talk about was Mr. Maisel's dramatic example in the housing field. I think it is very interesting, but I would like to raise some questions about it, partly because it is so dramatic.

I will ask a series of rhetorical questions in the hope that they will not be answered except by me. In the first place, I would like to raise the question of what the total expenditure and price level would have been on housing in this particular area if you had not cut back on the attractiveness of supply of mortgage funds, and so forth, in this area. In other words, to observe that the monetary cutback in demand for housing was associated with an increase in cost does not mean a cost might not have increased much more had you not had the monetary

cutback in the first place. That is one thing to take into account, and it is a problem that always vexes us in economics when we look at the empirical data.

The second point is that I think one of the reasons for trying to curtail housing demands in that particular period was not to affect the price of housing, but to affect the price level generally, through its effect on incomes and expenditures in other directions. That is, if you want to evaluate the effects of the cutback in expenditures, you can't look only at the particular area affected by that cutback in expenditures. You weren't really trying to stabilize the prices of the houses. You were trying to stabilize the prices in the economy.

The third point I would like to make is that as far as Santa Clara is concerned, a lot of those cost rises that are in the index may well stem from cost increases that are due to a heavy demand for steel, a heavy demand for cement, and so forth, stemming from other areas of the economy than construction, and not having to do much with the local economy.

The fourth point I would like to make is that I imagine, although I haven't seen any overall price index for residential houses, they do not show a 30-percent increase over that period, although I am just taking a chance on that. This looks pretty large. I should think that there must have been some special factors operating in this particular area that might have caused a larger increase than the national average.

Even if you look just at construction costs, I wonder wouldn't the prices of construction materials, for example, have risen more in 1955, 1956, and 1957 if, in addition to the heavy demands by State and local governments, Federal Government, and businesses, you had allowed a continuation of large-scale monetary expenditures in the housing area?

That is even if you confine your attention only to prices of construction components, in other words, and forget about other sectors of the economy and the income effect.

MR. MAISEL. I don't know if you want me to answer Mr. Hickman or not.

Representative MILLS. You may answer as you desire.

MR. MAISEL. Well, I would simply say this, that clearly part of the problem is the mix or number of houses being constructed in each price range. I would say that the mix is an important problem, because it means that the hard money policy in effect did drive people out of the market who needed housing. In other words, it tended to shift up incomes required and to lower the percentage of the total market that was getting housing.

I would say in terms of Mr. Hickman's first question of "Would prices have been higher?" obviously we can't answer this one way or the other, but we can say that prices in this case did not rise until well after starts reached a maximum.

In other words, we find that construction was at a maximum and had started down before prices started to rise; that costs did not rise until after production had started down.

His second question is considered at length on page 395 of my paper in the compendium where I point out that the effect on aggregate demand depends on whether or not resources can be shifted out and also on specific multipliers.

On the third problem, you can't answer that with the existing cost indexes. This committee has in the past looked into the problem and understands fully why this is the case. The existing cost indexes do not really show the costs of houses. They are simply indexes of prices of materials and labor.

The reason that prices went up in Santa Clara was not because prices of materials and labor rose, but because of the fact that the builder had to assume the costs of change in the money market. Usually we find that the change in the interest rate is spread over 30 years. But because of the way our loan guaranty program was set up, in effect we capitalized the increase in the interest rate. We put this capitalized difference in the interest rate into the house price immediately. So we got a 5 to 10 percent rise in costs simply as a result of the interest rate move. I think nobody would disagree with this point.

I think it is also clear that the market was disorganized. All of the studies we have done show that housing tends to be a declining-cost industry. It is one in which the larger the builder the lower the cost. The effect of tight money was clearly to drive down the average size of the builder in this area. We have done some studies on this. I can refer them to you, if you want. You would find that as you decreased the average size of the builder by this policy, you probably raised costs by another 5 or 10 percent. Here we have accounted for 15 to 20 percent or so of this 30-percent rise. So while I think the change in the type of house built had something to do with the price rise, I think we can say that a fairly high percentage was a direct result of the increases in cost brought about by the tight-money policy.

Representative CURTIS. I was just going to say an interesting factor in this housing picture to me was that it seemed that the decline in housing starts was almost entirely in the Government-guaranteed areas, and the private sector remained practically the same.

Mr. SCHLESINGER. I think this illustrates the problem of social priorities, with which you introduced the discussion, Mr. Chairman. Economists are not in a good position to decide on social priorities, and I am afraid that very little worth while in that line could come out of this panel. Our scales of priorities depend on whether we come from rural areas or urban areas, whether farm programs seem to be more suitable areas for Government expenditures than housing expenditures, and so on.

Economics is concerned with means rather than ends. I am afraid it is extremely difficult to establish any scale of priorities.

I would also like to comment on this question of the budget. It would seem to me to be foolish for us to play around with the idea of unbalancing the budget unless that is the only way that we can get the necessary defense expenditures. Right now, one of our chief problems, it seems to me, is the low rate of growth of the American economy relative to that of the Soviet economy. What we would like to do is to stimulate a greater degree of growth in the American economy.

One of the ways that we can do this is by supplementing private savings through a surplus in the Government budget. Perhaps it is idealistic to think that we are willing to tax ourselves to a greater degree, simply to allow greater investment. We have never been

willing to tax ourselves sufficiently to prevent inflation. But we should, it seems to me, not go in the other direction of unbalanced budgets until such time as we have reduced the interest rates; until we have stimulated as much as possible the investment sector of the economy.

Representative MILLS. Mr. Ture has a question or an observation.

Mr. TURE. I wonder whether this distinction, that I think all of you are agreed upon between social priorities and stabilization characteristics in a Government spending program, in all cases is as sharp as you have suggested.

Let's take the case of capital investment by the Federal Government in, say, dams, highway projects, and so forth. These are the cases of capital expenditures to which you can attribute some sort of income-stream, the present value of which you presumably can find by applying the appropriate discount rate. We had a discussion yesterday afternoon as to what the appropriate rate was.

If this rate is, as Professor Harberger suggested, geared to the average return on alternative investment opportunities throughout the economy, this rate will presumably rise during periods of rising levels of activity, and it will tend to fall or decrease during falling levels of activity.

What this rate does, in effect, is to help you measure the social priority of such and such a program as compared with a lot of alternative uses of the funds required, including private uses. Suppose, in a period of rising activity, perhaps because of an increased level of defense demands, you come across a program of this character which you cannot reduce, because, as Mr. Mills suggested, you were not sufficiently mindful of these flexibility characteristics, as described by Professor Froelich, at the time you put the program into effect.

In other words, there are statutory provisions which preclude adjusting the rate at which you would spend money in this program.

It seems to me that under these circumstances, the stability characteristics and the social-priority characteristics become one single characteristic, looked at from two different angles.

Would you agree or disagree?

Mr. SCHLESINGER. It seems to me that one man's "waste" is another man's "social justice." Although one can draw some kind of mathematical relationship as you suggest, in the final analysis whether a program should be curtailed cannot be decided on stability grounds alone. It must be decided upon the basis of individual judgment and political judgment about which, I fear, the economist, as an economist, has relatively little to offer.

Mr. TURE. I wasn't really suggesting that there are no other characteristics. But what do you really have in mind when someone proposes to the administration or the Congress that a specific water-conservation project be undertaken? What are these other considerations which are nonquantifiable in dollar terms? They become quite small.

The characteristics that are important are the savings that you get in terms of land uses, productivity improvements in farming, and so forth, and these are savings that are quantifiable in dollar terms. Presumably the Department of the Interior and the other agencies that are directly responsible in determining which of these programs they will undertake, try to use a fairly rigorous method of appraising benefits against cost.

The point that was made yesterday afternoon was that the rate at which they discount these benefits is, on the whole, much too low, a 3-percent rate. But assume that we could find the rate that was real or more accurate.

Professor Harberger suggested 6 percent as an appropriate average. Under those circumstances, it seems to me that there really is virtually nothing else besides the measurable benefits that comes into the determination of whether or not this is a socially desirable or undesirable thing to do.

Under those circumstances, if you find that the program that you have enacted was rigid, that it could not be adjusted in response to changes in the circumstances of the economy, you would, in fact, find yourself continuing at a given level with a program, the social priorities of which had fallen way below many other things that you would like to be spending money on.

I think that perhaps the real direction of the chairman's suggestion about the use of stabilization characteristics as a criterion for examining public expenditures for the future is that really this is the type of consideration which, where appropriate, ought to be given due weight so that we could avoid the kind of situation that perhaps we got into in the highway program.

Professor Brownlee pointed out yesterday that because ballistic missiles now are much more productive, clearly, with a given amount of resources, everything else is less productive. But in terms of the amounts of money which the Federal Government is committed to spending on the highway program, you would not arrive at that conclusion. You would say that it is just as productive as it was in 1956, despite the very vastly changed external circumstances.

Representative MILLS. The trouble with preparing legislation is writing in the necessary language that we are talking about as being necessary from the very beginning. That is the problem.

Mr. SOMERS. Mr. Chairman, if there are no other questions, may I take the liberty of speaking for the panel to thank you and Congressman Curtis for the privilege of appearing before you. We are greatly heartened by your careful attention even if it should turn out that you don't follow our advice.

Representative MILLS. You know, Mr. Curtis and I are always prone to follow advice. We do want to express our appreciation to each and every member of the panel for your part in the compendium, your appearance today, and the very helpful information you have given us as we proceed with a consideration of Federal expenditures and economic stability.

Thank you very much, gentlemen.

The committee stands adjourned until tomorrow morning at 10 o'clock in this room.

(Whereupon, at 4:45 p. m., the subcommittee recessed, to reconvene at 10 a. m., November 21, 1957.)

FEDERAL EXPENDITURE POLICY FOR ECONOMIC GROWTH AND STABILITY

THURSDAY, NOVEMBER 21, 1957

CONGRESS OF THE UNITED STATES,
SUBCOMMITTEE ON FISCAL POLICY,
OF THE JOINT ECONOMIC COMMITTEE,
Washington, D. C.

The subcommittee met at 10 a. m., pursuant to recess, in the old Supreme Court chamber of the Capitol Building, Representative Wilbur D. Mills (chairman of the subcommittee) presiding.

Present: Representative Wilbur D. Mills; Representative Thomas B. Curtis; Representative Richard Bolling.

Also present: John W. Lehman, acting executive director, and Norman B. Ture, staff economist.

Representative MILLS. The subcommittee will please come to order.

This morning in our current study of Federal expenditure policy for economic growth and stability we are going to focus on procedures for determining Federal spending programs. The discussions that we have had so far in these hearings have impressed upon me the great importance of continually improving budget techniques and the budget presentation if those, who must make policy decisions about Federal spending programs, are to do so wisely and objectively.

From the viewpoint of the Employment Act objectives involved in Federal spending policy, the necessity for a clear understanding of what specific spending programs will attempt to do and what they will cost is essential if we are to understand their impact on the economy and the demands they will place on the Employment Act machinery for assuring a high level of economic growth and minimum fluctuations in the rate of resource use and the price level.

Each panelist will be given 5 minutes in which to summarize his paper. We will proceed in the order in which the papers appear in the compendium, and we will hear from each panelist without interruption. Upon completion of the opening statements, the subcommittee will question the panelists for the balance of the session.

I hope that this part of the session can be informal and that all members of the panel will participate, commenting on the papers presented by other panelists and on the subcommittee members' questions.

This morning we will hear first from Prof. George F. Break, department of economics, of the University of California in Berkeley.

Professor Break.

STATEMENT OF GEORGE F. BREAK, PROFESSOR, DEPARTMENT OF ECONOMICS, UNIVERSITY OF CALIFORNIA, BERKELEY

Mr. BREAK. The hidden effects of Federal credit programs:

Federal credit agencies need not spend money in order to accomplish their purpose of increasing the flow of credit to selected groups in the country. Frequently a simple governmental guaranty of private loans will be quite sufficient, and such procedures have become increasingly important in recent years. No measure of their significance, however, is included in either the conventional or the consolidated cash budget, and to this extent these documents give an incomplete picture of the economic effects of the Federal Government.

All Federal loan guaranty programs protect the lender to some degree against default on the part of the borrower, and in addition some of them, such as the deferred participation loan program of the Small Business Administration, enable the lender to liquidate part or all of his investment without loss prior to maturity. By these means important stimulus is given to the flow of private credit to home buyers, farmers, shipping companies, small-business men, exporters, and local governmental agencies engaged in urban renewal and development.

The magnitude of these Federal activities may be judged from the fact that gross new commitments were almost \$16 billion in fiscal 1956, and the net volume of private credit insured—that is, after deduction of repayments made under previously insured loans—was \$5.7 billion. These figures may be compared with total Federal cash payments of \$73 billion in 1956 and a cash surplus of \$4.5 billion. The latter figure implies a substantial anti-inflationary effect. Before accepting it at face value, however, one should devote some attention to the loan-guaranty program.

The income-generating effects of these activities cannot, of course, be read directly from published figures on guaranties authorized, funds disbursed, or the net change in insured credit outstanding. In the case of agencies such as the Small Business Administration, the Farmers' Home Administration, and the Export-Import Bank, it is true that the principal effect is undoubtedly to make credit available to people who otherwise could not have obtained it. Some of this additional money, however, may go to refinance existing loans or to purchase land or used assets and hence will not increase private incomes.

Secondly, neither authorizations nor disbursements need correspond closely with the timing of the economic impact, and loan principal repayments may not be highly correlated with the deflationary effects of the contractual obligation to repay loans received. In other cases, such as the FHA and VA housing programs, the main effect may well be to make mortgages available on more lenient credit terms to people who could have borrowed in any case. Two questions then arise:

(1) By how much have interest rates been lowered, maturities increased, and loan-to-value ratios raised as a result of the Government's insurance and guaranty programs; and

(2) What amount of stimulus do changes of this sort provide to the demand for housing?

Although we can, by comparing conventional and insured mortgages, estimate the minimum impact of the Government programs on mortgage credit terms, we still have no direct quantitative evi-

dence concerning the effects of this on the demand for housing. We do, however, have such information about consumer installment credit. A statistical study of the interwar period showed that a given percentage increase in the length of consumer credit contracts led to a more than proportionate increase in the demand for that credit, and it is not unreasonable to assume that a similar demand pattern is to be found among home buyers. Since the median duration of FHA and VA mortgages in 1950 was over 80 percent greater than the median length of conventional mortgages, it is highly probable that this one aspect of Federal mortgage insurance alone has had a significant impact on the demand for mortgage credit.

Through its loan insurance and guaranty programs, then, the Federal Government exerts an important influence on levels of employment, incomes, and prices. Since these activities can expand or contract substantially without affecting the balance of either the convention or the cash budget, makers of fiscal policy will want to take these extra-budgetary developments into account whenever inflation or deflation threatens the American economy.

Representative MILLS. Thank you, Professor Break.

Our next panelist is Dr. Gerhard Colm, chief economist, National Planning Association.

Dr. Colm, you are recognized for 5 minutes.

STATEMENT OF GERHARD COLM, CHIEF ECONOMIST, NATIONAL PLANNING ASSOCIATION

Mr. COLM. This subcommittee has undertaken to examine the problem of how Federal expenditure programs can make their fullest contribution to the promotion of economic growth and stability. This is a very important subject and one which flows directly from the purposes of the Employment Act. The paper which I have submitted outlines guides and procedures which are available or could be made available to insure that Federal expenditure programs do make their maximum contribution to economic growth and stability.

Government expenditure programs may affect economic growth and stability in different ways. There is, first, the spending effect. This consists of the purchasing power created by Government expenditures and put into the hands of consumers or business. The spending effect of a Government program may be offset, in part, by taxation or Government borrowing which would tend to restrict the private availability of funds. Different spending programs and different systems of taxation or borrowing will exert different positive or negative multiplier and accelerator pressures on the economy.

Second, there is the program effect. This takes place now while the money is being spent, but usually after the Government project has been completed—except where there may be some anticipation of this effect. Much of your future hearings will be concerned with the effects of research, training, health, and conservation or development of natural resources on economic growth.

Government activity in each of these fields will have an impact on economic development. I am sure that in connection with the hearings on those topics the question will be asked: How can we measure the extent of the contribution of these programs to economic growth?

Although I have discussed this question to some extent in my prepared paper, in this brief summary I should like to direct my discussion to the problem of developing guides for an appraisal of the spending effects of Government expenditures.

The Employment Act requires that the economic report should present to the Congress estimates of the "needed levels of employment, production, and purchasing power" and of "current and foreseeable trends." This committee has in the past recognized the need for such economic analyses and projections to provide guidelines for formulating fiscal policies, including Government expenditure programs as well as tax and debt management policies. To implement this intent of the Employment Act in the present practice, I have set forth the following specific proposals in my paper:

1. In each economic report, the President should include a statement of "needed levels of employment, production, and purchasing power," in terms of a projection of national account aggregates. The projection might cover a 5-year period.

2. In each economic report—or in a special report issued intermittently—a number of alternative projections should be presented, describing possible economic developments under existing programs, assuming, for example, (a) an inflationary trend; (b) a sidewise movement of economic activity—i. e., failure to expand; (c) decline of, say, 5 percent per year in terms of gross national product in constant prices. By presenting such alternatives, it should be made perfectly clear that none of these trends is predicted. However, it would be desirable if the text of the report would discuss the probabilities of these various alternatives in the light of the actual current outlook.

3. In connection with these alternative projections, the report should also review the programs contemplated by the Government and their likely effect on consumer and business incomes and outlays.

Should the economic outlook suggest that changes in programs are called for, a specific recommendation should be presented for Government action, as well as an estimate of the expected effect of the recommended change on economic activities in terms of the national economic accounts. If it should be desirable to delay and stretch out, or speed up and enlarge, expenditure programs, the President and the Congress would take into consideration both the spending effect and the program effect of the changes which were being recommended.

The Government, however, is concerned not only with economic analysis but with the necessity to take action. While the decision to take action in the fiscal field should never be based on economic considerations alone, economic aspects should be taken into account.

Part of my paper is devoted to discussing procedures for coordinating economic policy in the executive and legislative branches of the Government. On the executive side, I propose, in line with an earlier suggestion of the National Planning Association, a closer interlocking relationship between the budget message and the economic report. Specifically, I recommend the inclusion of a 5-year budget outlook, corresponding to the 5-year economic projection to which I have already referred. The presentation of these interrelated economic and budget projections would facilitate more effective congressional consideration of the budgetary and economic implications of contem-

plated legislation. At the same time, it would help to coordinate economic and budgetary considerations.

I have also proposed that the budget estimates be based on an assumption of reasonably full employment, but that contingency appropriations be provided to be used in the event of an economic slack.

On the legislative side, the Joint Economic Committee has the responsibility to act as a coordinating adviser to Congress as a whole and to various legislative committees. The National Planning Association has proposed that "the Congress adopt each year a concurrent resolution" which would provide a fiscal policy guidance for the Appropriations Committees and financial committees of Congress. The annual report of the Joint Economic Committee is well suited to provide a basis for the formulation of such a concurrent resolution.

I am aware of the difficulties which had to be overcome on the executive side before a proper relationship could be worked out between the coordinating agencies in the Executive Office; first, the Budget Bureau, and the various departments which at one time were virtually sovereign in matters of budget and fiscal policies. I realize that even greater institutional and psychological difficulties exist on the legislative side. But I do believe that a way must be found so that economic considerations may become a more significant factor in legislative decisions particularly in the field of expenditure, tax, and credit policies.

We may be approaching a period in which the Employment Act may undergo its severest test.

It is, in my opinion, of utmost national and international importance that we do not fail in that test.

Representative MILLS. Thank you, Dr. Colm.

Our next panelist is Prof. George Y. Harvey, director of the bureau of government research, University of Missouri.

We welcome you back to the Halls of Congress, where you worked so many years so diligently for the Appropriations Committee of the House.

Mr. HARVEY. Thank you, Mr. Chairman, and may I say that probably I would feel more comfortable this morning sitting up there at your elbow, as I did so many years alongside the chairman, with my mouth shut, rather than out here. I found I never got in trouble when I had my mouth shut.

Before reading my paper, if I may take just a second to call attention to one graphic demonstration here this morning of what many people have regarded as a weakness in our budget procedure, and that is that there has been a failure to consider revenue and expenditure programs concurrently. You have heard that referred to many times, of course.

Mr. Magill, on the panel here this morning, has been coming to the Capitol for more than 30 years, appearing before various committees, and has enjoyed a wide acquaintance and reputation on tax matters. I spent a good many years here, of that same 30 years, on appropriation matters.

It was not until this morning that Mr. Magill and I were privileged to meet.

STATEMENT OF GEORGE Y. HARVEY, DIRECTOR, BUREAU OF GOVERNMENT RESEARCH, UNIVERSITY OF MISSOURI

Mr. HARVEY. The basic problems in the budget field are largely traceable to one root; the relationship between the executive and legislative branches of the Government. In the Constitution, the three branches of the Government are established as separate, each having its own sphere of responsibility and activity. The functions of the Government are very nicely divided and neatly separated.

However, in actual operation, it is not possible to maintain the complete separation either of responsibility or activity which appears on the face of the Constitution. Never in the history of the Nation has the Congress been able to operate with complete independence from the executive branch. It is necessary, constantly, for the Congress and the executive agencies to consult about the formulation of new legislation as well as current administrative problems.

In earlier years, when the executive branch of the Government was small, no particular difficulty was experienced, inasmuch as each Congressman and each Senator could maintain a sufficiently wide acquaintance of executive agencies as to be able to advise himself on legislative and policy matters through sources with whom he was personally acquainted and, on that account, knew to be reliable. In recent years, the Government has grown in size and complexity to a point where traditional informal contacts are inadequate. A few simple comparisons may serve to dramatize the situation which has developed.

Thirty years ago next month, when I first came to the Capitol, not a single department of the Government found it necessary to publish a telephone directory. All one needed to know to telephone an official of the Government was his name and the agency in which he was employed. At that time, the Washington City telephone directory had 110,000 listings, and now the telephone directory for the Defense Department alone has 50,000 listings. Each Member of the House had 1 full-time and 1 part-time employee in his office. Now each Member of the House has several full-time employees in his own office. The Veterans' Bureau was the only agency which maintained a liaison office on Capitol Hill, and most departments had no employees permanently assigned to legislative liaison. They did not need it. Congressional offices dealt directly with bureau chiefs, Assistant Secretaries—the Department of Agriculture, incidentally, at that time had 1 Assistant Secretary, whereas now there are 11 such officials—or directly with Cabinet officers themselves.

Now practically every agency of the Government has found it necessary to designate some permanent employee as legislative liaison officer and usually to furnish him with a staff. It has become necessary in recent years to add three additional grades in the career civil service, largely because of the increased size of the Government.

There are still just 435 Congressmen and 96 Senators. Obviously, it is impossible for any Member to maintain personal associations, on the former basis, with officials of the executive branch to keep abreast of Government developments and to have available his own trusted sources of information. A great deal of assistance has been furnished to Members through provision of additional staff, but that is only a partial answer.

Staff assistants can be very helpful, but the contact between the legislative branch and the executive branch is now too largely between staff people on Capitol Hill and lower echelon staff personnel in the executive branch. Frequently, too, the staff personnel in the executive branch are persons assigned to legislative liaison work who are not directly concerned with program development or administration. They are question answerers and fact gatherers. A great deal has been lost, since there is not time nor facility for the personal interchange on the old, informal basis when Congressmen and departmental administrative officers were personally associated.

As a matter of fact, one seems to sense a growing hostility between the two branches of Government. If this be true, it is because of the greatly increased size of the executive branch and its remoteness from the legislative on that account.

There is no quick and ready answer but it is a little deeper than just furnishing more staff. As a matter of fact, the role of staff in the legislative establishment has not been well defined. Well-intentioned able congressional staff assistants sometimes become too much involved in administrative matters within the departments and sometimes staff people in the departments become too closely alined with congressional staff employees and business gets transacted at too low an echelon.

Never again will it be possible for Congressmen and ranking officials of the executive branch to meet on the old informal basis. Government has grown in size and in scope so rapidly that communication has broken down. William Tyler Page, one of the most noted and most distinguished men who has served as Clerk to the House of Representatives, stated in 1939, that, at that time, the average Member of the House did 5 times as much work as the average Member did when Mr. Page went to work for the House 60 years before, as a page boy. Since 1939, there have been many additions to the burdens of Government, new activities and enlarged programs so that it might be safe to say that the load has doubled in the last two decades, since Mr. Page made his statement.

The executive branch has grown in power and influence and the legislative branch has countered with its only weapon; investigation. Investigation, by its very nature, is a hostile approach. Not many years ago, there was little or no question as to the availability to a congressional committee of information from the files and records of the departments of the Government. Now the question is often raised and certain barriers have been erected successfully by the executive branch against congressional review. Full disclosure to the legislative branch is vital to maintenance of the American system.

Probably there have been excesses on both sides. While it is not possible for any one man to produce the workable answer, it is to be hoped that a better atmosphere will evolve. Certainly there is a problem worthy of the attention of the thoughtful people at the opposite ends of Pennsylvania Avenue with view to developing an understanding, friendly atmosphere in which the Government's business can be transacted.

We are spending our time looking for answers rather than looking for problems. We fallaciously assume that the symptom is the disease. Doctors can reduce fever temporarily with aspirin, but that is no cure. During recent years a veritable plethora of new schemes and systems—the New York Times referred to some of them as

"gadgets"—have been offered as panaceas for budgetary ills. Practically all of these have been superficial approaches treating the budget from an accounting standpoint and completely overlooking the political nature of the process.

Representative MILLS. Thank you, Professor Harvey.

Our next panelist is Mr. Walter G. Held, secretary, committee on Government expenditures, Chamber of Commerce of the United States.

Mr. HELD. Thank you.

Before starting my summary, may I make one comment. When I was invited to participate in this panel, it was my understanding I was to participate as an individual who had some background in this process and not necessarily as a representative of the organization for which I work.

Representative MILLS. That is our understanding; yes.

Mr. HELD. The comments which I will make this morning, and the material which is printed in the compendium, represent strictly my own personal opinions and should not necessarily be construed as the policy or position of the Chamber of Commerce of the United States.

STATEMENT OF WALTER G. HELD, SECRETARY, GOVERNMENT EXPENDITURES COMMITTEE, CHAMBER OF COMMERCE OF THE UNITED STATES

Mr. HELD. Although opportunities for improving the systemic arrangements for conducting the Federal budget process are present in both political branches of Government, the most urgent need is in the realm of congressional consideration and action. The executive branch has over the years given more concentrated effort to improvement than has the legislative. Comprehensive study is needed to eliminate present difficulties, most of which arise from the "system of separates" which characterizes Congress' action.

The prime objectives in the improvement of congressional review and enactment of the budget should be the strengthening of spending controls through the redesign and simplification of the appropriations structure to achieve a higher degree of functional or performance budgeting and the concentration of all actions affecting the budget in the Appropriations Committees, or a Budget Committee, if deemed desirable.

Congressional actions on the budget should be considered as an annual opportunity for Congress to review its past work in light of current circumstances and fiscal realities. The conclusions reached in these annual reviews should be considered paramount to previous legislative actions, and should be the basis for initiating remedies to deficiencies in existing legislation.

The problem of Federal budgeting is complicated by the lack of an adequate mechanism for determining the true needs of the public economy, such as the market mechanism provides for the private economy. For Congress this becomes a highly significant problem since it is faced with a wealth of spending proposals, each of which might be considered highly desirable, depending upon the point of view, and each of which may be to some degree, justified.

To some extent Congress can compensate for the dilemma it faces by building into its procedures an effective spending ceiling. This

would have the effect of guiding the amounts of the specific appropriations which should be made. This was one of the objectives of the Legislative Reorganization Act of 1946.

In addition to these actions, other systems changes may assist Congress in improving its budget actions. Included among these are—the use of a joint budget policy conference, the possible elimination of permanent and indefinite appropriations, a direct gearing of the Appropriations Committees into considerations of legislation affecting the budget, a separation of long-term and capital development programs from current operational activities, improvement in the presentation of information to Congress, a realinement of appropriation subcommittees, an expansion of the jurisdiction of Appropriations Committees to all budget matters, and several others.

Some improvement in the executive branch is also possible. Since the budget process is basically a judgment-making one, the annual job of the executive in developing a proposed budget plan for consideration by Congress is as much a problem in human dynamics as it is in mechanics. The quality of the budget job will depend to a large extent upon the quality of workmanship which goes into the job. This requires a comprehensive training program for people in responsible management positions, as well as budget technicians. Similarly, it involves a reorientation of the qualifications for such persons to provide competency in the broad managerial field and not simply in a single aspect of it.

Changes in budget structure and format, a simplification of budget terminology, a reduction in the size of the budget document, and the use of special analyses would also assist in making more effective determinations of budgetary requirements. In addition, consideration should be given to building the budget from zero, a tighter use of apportionment and allotment controls to effect economies or improve efficiency, the elimination of the project order system, granting the President power to veto riders on appropriation bills, and similar systemic changes.

It must be recognized that there is no short cut to effective improvement in the Federal budget system, which in its entirety is the system by which Federal spending programs are determined. Any major changes should stem from an intelligent, systematic, and objective study of the problems, particularly as they pertain to improvement of the congressional phase of the national budget system.

Representative MILLS. Thank you, Mr. Held.

Our next panelist is Mr. Roswell Magill, president, Tax Foundation, Inc. But I want to introduce him as Prof. Roswell Magill because I know him better in that capacity.

You are recognized for 5 minutes.

Mr. MAGILL. Thank you, Mr. Chairman.

STATEMENT OF ROSWELL MAGILL, PRESIDENT, TAX FOUNDATION, INC., PARTNER, CRAVATH, SWAINE & MOORE

Mr. MAGILL. I am afraid you are all too aware, as has been pointed out here this morning, that normally I am operating on what can be termed the "other side of the street." But nevertheless I am happy to be here to discuss the budgeting process, this morning. Fortunately you, yourself, know my limitations.

The question whether Congress lacks control over spending has been subject to much misunderstanding and even controversy. Events of the past congressional session help us understand the problem.

Despite huge appropriation cuts, Congress was unable to reduce taxes. Substantial tax reduction next year, virtually promised by all concerned, is in serious jeopardy.

Uncontestably, Congress has the constitutional power to control spending, but even the power and the will to cut spending stumble over faulty processes, as has been seen this year.

A substantial part of Federal expenditures is not effectively reviewed and controlled annually through the appropriation process. Among reasons for this limited control are: (1) the appropriation process differs in timing and extent from the spending process; (2) annual indefinite appropriations authorize indefinite amounts of obligation and expenditures; (3) permanent appropriation, definite and indefinite, authorized substantial expenditures governed by contractual arrangements or commitments outside the appropriations committees' control; (4) contract authorizations confer authority to incur obligations in advance of appropriations to expend from public debt receipts, permitting obligations and expenditures from borrowed funds; (5) in aid programs, i. e., to State and local governments, veterans, and so forth, the amounts spent each year depend on formulas in basic legislation and on economic conditions; and (6) there is a tendency for appropriations committees to regard authorization of a program as a moral obligation to provide funds required.

There should be in the budget process a place where the sum of all proposed needs and wants are related to the revenues and where the effect on available resources can be weighed.

In the appropriations process there is no means by which Congress can weigh one expenditure against another, one program against another, and changes in expenditures against changes in taxes. There is no means by which Congress can assign priorities to various expenditures and use these priorities in determining the choice among competing expenditures.

Since World War II, there have been numerous proposals for reform; and many actual improvements. Congressional control of expenditures through the appropriations process has been improved, for example, by the Corporation Control Act of 1945. The introduction of performance budgeting was another step forward. Efforts to insure greater congressional attention to broad fiscal policy and action on total expenditures have been numerous. One of the most ambitious of attempted reforms was the Legislative Reorganization Act of 1946. Another was the Omnibus Appropriation Act, tried out in 1950, abandoned the next year. In 1951, the Committee on Federal Tax Policy proposed that Congress suspend all spending authorizations except for the military and interest on the public debt, after which the Budget Bureau would submit an alternate expenditure budget not to exceed estimated revenues for the year.

But no long-range reform for recapturing annual congressional control of expenditures through the appropriations process has yet been developed.

It is high time to try something—to take one or more of the important, thoughtful proposals to remedy lack of control and give it a year's trial. Congress should also continue this year's pruning of swollen appropriation requests, and institute a comprehensive congressional study of the problem to find the best long-term solution to the present lack of control.

Representative MILLS. Thank you, Professor Magill.

Our next panelist is Prof. Richard Ruggles, Department of Economics, Yale University. You are recognized for 5 minutes.

STATEMENT OF RICHARD RUGGLES, PROFESSOR, DEPARTMENT OF ECONOMICS, YALE UNIVERSITY

Mr. RUGGLES. Government accounts serve many different functions, and different forms of accounts are needed to carry out these functions. At least five quite different requirements of Government budgets may be mentioned. First, Government agencies must keep accounts so that they will know what funds they have available to spend. Second, the General Accounting Office and other responsible agencies must be able to determine whether money has been spent according to legislative provisions. This is accountability, and protects the Government from fraud or misuse of funds. Third, accounts are needed as a framework for the presentation of budgets to the Congress, and for appropriations. Fourth, and closely related, is the evaluation of performance—the efficiency with which appropriated funds have been spent. Last is the analysis of the impact which a Government expenditure program can be expected to have upon the economy, either in general terms—prices, output, and employment—or in more specific terms—the impact upon particular industries or financial markets.

At the present time there exist a number of different forms of Government accounts, to meet these differing needs. The public is therefore faced with different sets of accounts, which at first glance may seem to give conflicting answers. It is generally possible to explain why these accounts differ, and in some cases rather elaborate reconciliations between various sets of accounts have been developed. Nevertheless, because the different accounts do exist, one never knows when a figure is quoted just what it refers to, and apparently contradictory statements can be made on the basis of information drawn from different accounts.

The problem of integration: Because the accounting systems which have been developed for these various purposes bear little relation to each other, it is not possible to move easily between them. Consequently, conclusions based upon the more aggregated levels of accounts often cannot be traced back to the more detailed information, and, conversely, the detailed accounts, even when combined, do not yield very useful information at the more summary level. Furthermore, the maintenance of a number of different accounting systems involves considerable duplication of effort, and consistency checks between the accounts are often not feasible. What is required is a conceptually integrated system into which the various kinds of Government ac-

counts can be fitted as integral parts. A fully integrated system may perhaps require budgetary reform. But even in advance of such budgetary reform it would be very useful to develop a system of Government accounts that was at least conceptually integrated so that the various parts of the overall accounting system, even if estimated independently, would not live different and distinct lives of their own.

In recent years problems of Federal Government accounts have been given increasing attention by the General Accounting Office, the Bureau of the Budget, and the Treasury Department under the joint program for improving accounting. The second Hoover Commission gave explicit recognition to the value of the joint accounting program, and recommended strengthening it. Some of the major areas of its interest are the development of performance budgeting, the formulation and administration of agency budgets on a cost basis, and the basing of appropriations on accrued expenditures. There can be no doubt that these developments are real contributions to the usefulness of Government accounts for the evaluation of the efficiency expenditure.

Simultaneously with these developments in Government accounting at the level of the individual agency, there have also been developments at the more summary levels, in showing the role which the public sector plays in the economy as a whole. The national income accounts show the receipts and expenditures of the Government sector in a single summary account. The flow-of-funds accounts have separate statements for Federal and State and local governments, and are somewhat more comprehensive in the kinds of transaction they contain. The input-output accounts give considerable detail as to the kinds of goods that are purchased and the payments that are made by the Government sector. But until recently, there had been little attempt to relate the Government accounts in the different forms of national economic accounts to one another. However, on October 29 the National Accounts Review Committee submitted a report to the Joint Economic Committee recommending that an integration of the summary Government accounts be developed, and that the different forms of national economic accounts—national income accounts, flow-of-funds accounts, input-output accounts, balance of payments accounts, and national balance sheets—which have also hitherto led rather independent lives, be coordinated into a single national economic accounting system. Such an integration would do much to put in order the presentation of information on the public sector at the more summary level.

The United States is not alone in facing this problem of developing adequate government accounts. Other countries have much the same sort of problem, and we can learn a good deal from studying the kinds of solution they have adopted. The United Nations is also playing an active role in this process. Over the past 5 years, the U. N. has been developing a manual on the economic and functional classification of government transactions, and workshops on this subject have been held in different parts of the world. Specific individual countries have probably drawn ahead of the United States in this area, at least if the development of an integrated set of national economic accounts is regarded as a step forward. Some governments require that budget presentations be related to the overall national economic accounts, so as to show the proposed government tax and expenditure policy in relation to the overall operation of the economy. Much

could be learned from the difficulties that have been experienced in these attempts, as well as from their successes.

From these observations, it is obvious that consideration is being given by a number of groups in the United States to improving government accounts, both at the individual agency appropriation level and at the more summary level dealing with the government's economic activity. But there is little consideration by any of these groups of the work of the others. Those working at the level of the detailed accounts are not concerning themselves with the problems of national economic accounts; those working on national economic accounts have not given very much consideration to the requirements of budgeting as a political process or to the problems of accountability; and it can probably be said that neither group has sufficiently exploited the experience of international groups and other countries in this area. If the Congress wants to obtain better information, both at the detailed level and at the more summary level, specific action will be needed to bring it about.

Representative MILLS. Thank you, Professor Ruggles.

Our next panelist is Mr. Murray L. Weidenbaum, senior operations analyst, Convair, a division of General Dynamics Corp., Forth Worth, Tex.

You are recognized for 5 minutes, Mr. Weidenbaum.

Mr. WEIDENBAUM. Thank you. I should like to point out that the views I express are my own and not those of the General Dynamics Corp.

STATEMENT OF MURRAY L. WEIDENBAUM, SENIOR OPERATIONS ANALYST, CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP., FORT WORTH, TEX.

Mr. WEIDENBAUM. In considering changes and developments in Federal expenditures, it should be noted that there is a fairly lengthy and involved process through which Government expenditures are made. Government spending is not simply turned on or off, or quickly accelerated, or slowed down.

Following the authorization of a new program by the Congress, appropriations or other obligational authority must be enacted, apportionments must be made, contracts negotiated, production undertaken, delivery to the Government effected and, finally, Government payments made. A significant amount of time usually elapses while this chain of events is taking place.

In some circumstances and for certain types of programs—such as payment of wages to Government employees or of pensions and compensation to veterans—the lags are at a minimum. In other cases, particularly those involving the production of heavy equipment, several years may elapse until delivery and payment.

A number of consequences arise because of the extended nature of the Government spending process:

1. The actual Government expenditures may lag significantly behind the effect on employment, production, and income. Particularly in the case of a procurement program, the economic impact may occur when the goods are ordered and being produced.

2. In the case where production is being carried on by private firms, the expansive effect on the economy will show up in reports on the business sector, rather than for the Government sector. This distinction is especially important in properly interpreting the economic outlook when fluctuations in Government purchasing dominate economic developments.

3. In determining changes in Government spending programs for purposes of economic stabilization, it is important to know whether the economic impact of a specific program being considered will be immediate or will only occur after a substantial delay.

4. Developments in the early stages of the Government spending process can yield important indications of future expenditure levels. They are in the nature of "lead" series or "expectational" statistics.

Measures of the actual expenditures of the Federal Government are highly developed, readily available, and frequently used. The budget document reports the amount of new obligational authority granted by the Congress. However, no series are prepared on the total obligations being incurred by the Federal Government or on the current amount of private production on Government order.

The Subcommittee on Economic Statistics has recommended that reports on private business inventories show how much relates to Government contracts. This would indicate the current amount of Government-ordered production.

The individual Federal agencies report their obligations monthly or quarterly to the Bureau of the Budget. However, no attempt is made at the present time to summarize this information and to examine it from the viewpoint of the Government as a whole. A measure of the total obligations being incurred by the Government might be useful not only for purposes of economic analysis but for internal governmental administrative and budgetary control.

I should like to emphasize the point that the timing of the economic impact of Government spending may vary with the type of program and surrounding circumstances, and that the length and complexity of the Government spending process need to be understood and taken into account in formulating public policy relating to Government spending.

Representative MILLS. Thank you, Mr. Weidenbaum.

Mr. Curtis—

Representative CURTIS. Mr. Chairman, I want to come back to a specific item in Mr. Break's paper. But before doing that, I would like to pose a question that possibly—or rather state a series of cases of governmental programs and expenditures and how they came about to see how they fit in with these particular generalities.

The Bonner subcommittee, back in the 82d Congress, of which I was a member, was investigating military procurement and supply. And we found many areas in which the Military Establishment had become engaged, which looked to us like civilian-type occupations. And one of the things that excited our curiosity was how the Government got into those areas in the first place.

Then secondly, why did the Government remain in those fields?

I would like to illustrate, or mention 1, or 3, really, because each one illustrates a different point. One was in the field of coffee roasting and distribution of coffee, which looked to us to be readily suitable for civilian economy. The Navy's explanation was that coffee was a

matter of morale, and they had to have just the best coffee. Having served in the Navy for 4 years myself, I think that coffee was a matter of morale. But it was an interesting thing that even on the shelves of the naval commissaries, where they had regular standard brands, were the Navy brands, selling for considerably less.

The Navy housewives would purchase the standard brands. I thought maybe that was an indication of which coffee system promoted the morale the most. But how did the Navy get into it? Where did they get the financings?

Now, out in St. Louis, Mo., the largest optical shop in the world apparently was being operated by the Army, grinding and fitting lenses. They also had a big dental laboratory, which still exists, which was making teeth and plates and so forth.

Now, getting down to how they got into it, we found that the funds mainly came from "Maintenance and operation." And in getting into the accounting that the Military Establishment had as to how much it cost, we found that the accounting was quite primitive. And, incidentally, it still has not improved too much. Things like depreciation of all this very expensive equipment was not taken into account, because as the colonel in charge of this one operation said, when this wears out, we come to Congress through another account and replace it. The proportionate salary of the colonel, the time he devoted in running this optical shop, was not included. Of course, such things as the proportionate costs for sewerage, fire protection, police protection, and so forth, was not within any contemplation, nor was insurance.

Interestingly enough, the military is still in many of these fields in spite of all the work on the second Hoover Commission, which followed the Bonner subcommittee work.

One observation: The reason they are phasing out in the dental laboratory work is that the private dental laboratories are paying the dental technicians a great deal more money, so that the military cannot keep them; because, under the civil-service classifications, they do not rate the dental technicians sufficiently high so that they can get the money. That is what, not the high command nor the Congress, has gotten them out of this business. It has not been Congress, nor the Military Establishment. Using those as examples, I personally came to this conclusion: that one very important thing that the Congress could do to rectify that type of uneconomic operation was to return these endeavors to the control of a market operation in the private sector, to get the military out of that. Then you have an automatic check. If your private concerns are in competition and let their dreams get ahead of reality, they go broke. But in a Government operation, all you have to do is to present a pretty picture to those higher on up in the budgetary line and only the Government pays for the bad economics.

There is no automatic check built into Government.

I am wondering whether or not there are not some economic standards—I am not an economist—but I am wondering if there are not some standards that actually could be built to test many of these operations that the Federal Government has gone into.

Now, one final comment on it, to get it back into perspective: In our previous papers there have been statistics that indicate that the time that the Federal Government has enlarged, has been in times of war, and the big depression. But when it enlarged greatly, after the

ebbing the level remained considerably beyond the level before the war. That indicates that in times of emotion and in the pressures to meet war, we obviously must have gotten into a great many programs that probably were not thought about—such as dental laboratories, tire retreading, maintenance and repair of civilian-type automobiles, and so forth, and so forth.

And there has never been a look back to see what we should get out of.

Now, to a degree, the Hoover Commission, as has been pointed out, has done some of that. And yet, even there, I do not believe any standards have been established which might be used to test these various operations to see whether it is something that it is economic for the Federal Government to get into or stay in.

Now, having made that comment, I wonder if there is any comment from the panel on that?

Is it not possible, perhaps, that a great deal of some of this uneconomic operation could be corrected simply by the device of turning it back into the private sector, so that there would be this automatic check that I referred to?

Mr. HARVEY. Mr. Chairman, may I speak for just a second on that?

Representative MILLS. Yes.

Mr. HARVEY. I think it can be said that the Government can justify its embarking in a straight business venture only on one ground. That is that it can handle the Governments business more cheaply and save money for the taxpayer in that way. Now, there have been many investigations of the Government in business. I recall in the early 1930's, about 1933, Congressman Shannon, from Kansas City, Mo., headed a special committee which made a great general investigation at that time. It has been a recurring problem. The greatest difficulty in it is what you referred to a minute ago, Mr. Curtis, on the accounting side. Until there is available, and unless there is available, in the departments, adequate cost accounting, which is going to reflect true cost, then it is not possible to determine whether or not a particular venture is advantageous to the Government.

In many branches of the military services today there are developed fine, modern cost-accounting systems. In some branches of the military they have no adequate cost-accounting system. In many areas they still do not show all of the costs, because the salaries of the military personnel are charged to pay of the Army or pay of the Navy, and are not reflected in cost of operations.

Now, it is not always necessary to have these cost-accounting systems for straight annual appropriations purposes as much as it is necessary that we have such cost-accounting systems for the purposes of internal management and for the purposes of finding answers to the problems such as you just raised.

If I may tell you a little more fantastic story of what may be done, I would like to do so.

A few years ago, when the Committee on Appropriations sent some auditors out through the islands of the Pacific after the war, when we rediscovered the islands of the Pacific, and found we had a lot

of business out there that had to be handled, a General Accounting Office auditor for the Appropriations Committee went into American Samoa. While he was there, he walked into a little bank to cash a check. He introduced himself as a General Accounting Office auditor. The president of the bank, or cashier, said to him: "By the way, I am glad to see you. I wish while you are here you would audit this bank."

Mr. Jordan, the auditor, said, "I have no authority to audit this bank. I am a Government auditor." "Well," he said, "the Government owns this bank." He said, "The Government owns it?"

He said, "Why certainly, the Government owns this bank." The history of it was that when the United States Government took over American Samoa back in 1917, or 1918, along in the First World War period, they had no bank down there at all; they had no facilities for cashing checks, making change, handling local business. The Navy was in charge and some enterprising naval officer on the spot had to do business fast. He took \$5,000 out of the Navy account of advances and opened a bank.

Well, now, if that account of advances had been audited during the period when he had that \$5,000 out in that bank, he would have been in a very embarrassing position. But, the bank made \$5,000 and he got his \$5,000, restored it to his account, and the bank exists.

There is no capital stock. There is a nice little paid-up surplus. It was a nice little business down there—a million and a half dollar bank and no one in Washington knew we owned it.

MR. WEIDENBAUM. A number of reasons have been given for the development of these Government enterprises which produce goods and services for the Government's own use. These are such criteria as the necessity for immediate availability, quality control, and geographic considerations.

It is my own personal belief that the primary reason for the development of these enterprises is insufficient guidance and policy objectives. I do not believe that the average staffman in the Government departments that establish these business activities had, during the years, guidance to the effect that the Government does not desire to carry on businesses in competition with private industry. I do not think he had this type of guideline.

I should like to point out that in recent years, the executive branch has taken some first steps along these lines. I have in mind the Budget Bureau inventory of business-type activities carried on by the Federal Government and the circular which has been promulgated setting up some general criteria for taking the Government out of business. I cannot say whether these are adequate, but I think something along those lines is necessary.

(The following material was subsequently supplied for the record:)

The above-mentioned inventory is contained in the Bureau of the Budget publication, *An Inventory of Certain Commercial-Industrial Activities of the Government*, Washington, D. C., May 1956.

The statement of administration policy is contained in Bureau of the Budget Bulletin No. 55-4, *Commercial-Industrial Activities of the Government Providing Products or Services for Governmental Use*, issued on January 15, 1955.

**AN INVENTORY OF CERTAIN COMMERCIAL-INDUSTRIAL ACTIVITIES OF THE
GOVERNMENT**

(PART OF A PROGRAM FOR THE REVIEW OF GOVERNMENT COMPETITION WITH PRIVATE
ENTERPRISE)

Bureau of the Budget, Washington, D. C., May 1956

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I. ORIGIN AND SCOPE OF THE PROGRAM

In order to initiate an orderly and systematic review of the activities of the Government which might be in competition with private enterprise, the Bureau of the Budget, at the direction of the President, issued its Bulletin No. 55-4 on January 15, 1955 (appendix I).

During the preceding 2 years there had been a reexamination of what the Federal Government was doing and should not be doing, particularly with respect to services performed on behalf of the public. Laws were enacted providing for the liquidation of business-type activities, including several Government corporations, and steps were taken to shift to private enterprise some of the other major activities of the Government.

Congress directed the Commission on Organization of the Executive Branch of the Government to make recommendations toward "eliminating nonessential services, functions, and activities which are competitive with private enterprise." The importance with which the Commission regarded this directive is indicated by the fact that five distinct task forces made reports on the subject. The Commission's report on business enterprises emphasizes that continuance of competitive business activities by the Government must be made subject to rigid justification and recommends the curtailment or disposal of certain specific activities.

Broad classes of activities

The commercial and industrial-type activities of the Government comprise three categories:

(1) Those which provide products or services for all or part of the general public.

(2) Those which provide products or services for Federal civilian employees and military personnel.

(3) Those which provide products or services for the use of the Government itself.

In the first category are such activities as the generation of power for sale to the public, the making of loans, etc. In the second category are the military commissaries and post exchanges, and a number of relatively small volume activities conducted by civilian agencies as a part of their employee relations programs. The third category is composed of activities which do not directly provide services to the public or to Federal personnel, but where the Govern-

ment has chosen to provide for itself a product or service which might be purchased from private enterprise.

The program covered by Bulletin No. 55-4 is aimed specifically at the third category of activities named above. The other two categories are being examined continually by other means.

The commercial-industrial activities of the Government may also be classified in another way: some are operated by the Government itself; others are operated by contractors, using Government-owned facilities; and still others are operated by contractors using Government-owned facilities in part and their own facilities in part. The scope of this program reaches to all three of these subcategories where applicable.

Program

There are four parts to the program announced by Bulletin No. 55-4. The following paragraphs describe the program as applied to civilian agencies of the Government; in the case of the Defense Department, the program is the same but the time schedule and sequence are somewhat different. In that Department the inventory and the evaluation are proceeding simultaneously, but because of the volume of activities and their widespread nature, the program is being divided into a number of installments for study and action.

With the timing exception noted for the Defense Department, the program consists of the following for both military and civilian agencies:

(1) *An inventory of commercial and industrial-type activities.*—The bulletin called for agencies of the executive branch to prepare an inventory of their commercial and industrial-type activities carried on to provide a service or product for the Government's use during the fiscal years 1954 or 1955. Both Government-operated and contractor-operated activities were covered in the continental United States, Alaska, and Hawaii. The bulletin exempted small activities with capital assets of less than \$5,000 and a product valued at less than \$25,000 a year. With these exemptions, the instructions called for the inventory to be complete with respect to all such commercial and industrial operations, whether or not the agencies believed they were justifiable as Government activities. The evaluation of such activities and the justification therefor was to be separated from the process of making a complete inventory.

(2) *An evaluation of commercial and industrial-type activities.*—Each agency was directed to begin the evaluation of the commercial and industrial-type activities covered by the bulletin. Because of the magnitude of the evaluation, provision was made for spreading it over a longer period of time. The first phase of the evaluation was to deal with the manufacturing segment of the commercial and industrial activities operated by the Government; other phases of the evaluation are to be announced from time to time.

(3) *Action to close or curtail activities as indicated by evaluation.*—The third part of the program covers the action necessary to carry out the conclusions reached in the course of the evaluation. Unless the agency head concludes that the procurement of the product commercially would not be in the public interest, the activity is to be closed or curtailed. Action to close or curtail the activity is to be taken promptly, except where it is necessary to seek legislation; in such cases the legislation proposed is to be drafted promptly for submission to the Congress.

(4) *Action to limit starting new activities.*—Each agency is to examine each proposed start of a commercial-type activity from the same policy viewpoint as the examination of activities already carried on. New starts are to be undertaken only where the agency head determines that there is a clear demonstration that it is not in the public interest to procure the product or service from private enterprise.

II. THE INVENTORY

Purpose and scope

This report brings together the results of the separate inventories made by the various agencies of the Government under Bureau of the Budget Bulletin No. 55-4. It makes available for the first time information on a governmentwide basis as to the kind and size of commercial-industrial activities which the Government carries on to provide goods and services for its own use. The report is an inventory of such activities and is not intended to indicate whether any particular activity should or should not be carried on by the Government. These con-

clusions will be reached in the process of evaluation by the responsible agencies and will be made available from time to time.

As indicated above, the inventory covers the continental United States, Alaska, and Hawaii except those with capital assets of less than \$5,000 and a production valued at less than \$25,000 a year.

The agencies were instructed to report all activities that are commercial in nature and that provide a service or product for the Government's own use "if such product or service can be procured from private enterprise through ordinary business channels." For interpretation of the latter point, reference was to be made to the Standard Industrial Classification Manual and to ordinary business practice with respect to procurement of services or products. The inclusion of an activity in the manual is generally indicative that it may be procured commercially. Certain exclusions were made, however, as outlined in the next subsection of this report.

With respect to the Department of Defense, military functions, the inventory is limited to the manufacturing activities. Inventories of other types of commercial and industrial activities will be prepared as the program progresses through further stages.

Limitations and guides for use

Certain qualifications on use of data.—Certain qualifications must be noted in the use of the figures. The figures do not purport to cover activities which are primarily for the public or for Government personnel. Second, there may be some inconsistencies in reporting as between agencies. One agency may have listed activities of a kind that another agency may have omitted. It is not believed, however, that such differences are significant. Any gaps in the inventory will be filled in as the program progresses. Third, the inventory relates to activities carried on at any time in the fiscal years 1954 or 1955; some activities have been curtailed or terminated since their listing.

The Standard Industrial Classification Manual has been used for purposes of uniformity;¹ those unfamiliar with the classification may not recognize immediately the kinds of activities being carried on in the various categories. However, it would have been very difficult to compile the inventory on the basis of each agency's own terminology, and the Standard Classification was adopted.

Some kinds of activities excluded.—Certain activities have been intentionally excluded from the tables, either before or after the original submissions by the agencies. For example, those activities that are normally considered a part of the management of a private enterprise—personnel work, bookkeeping and accounting, are not included. Other examples are public services and utilities that are essential to the conduct of a facility but not available commercially in the area, such as water and sewer systems where there is no local system to which they can be connected.

Basis for stating the figures.—For the activities included in the tables, capital assets are listed at acquisition cost, where known. Costs for land and buildings are, therefore, in many instances, below the replacement values, while the opposite situation may exist with respect to equipment that has been in use for a period of time. Where the commercial activity is in effect a subactivity of a larger installation, the capital asset value has often been determined by estimating, since no precise breakdown would be available. Numbers of personnel are generally stated in terms of those engaged directly in the activity; overhead personnel, beyond the management of the particular activity, are excluded. In some cases the agency has not found it possible to estimate the capital assets involved, and in a few cases the agencies have omitted an estimate of the number of employees or the number of installations.

¹ U. S. Bureau of the Budget, Standard Industrial Classification Manual, 1945-49, 2 volumes in 3 parts, available at the U. S. Government Printing Office, Washington, D. C. (\$4).

Summary of the inventory

The inventory of commercial-industrial activities conducted by the Government or with Government facilities for its own use is set forth in summary tables I to IV attached. It may be further summarized as follows:

	Number of installations	Capital assets	Number of Government employees	
			Civilian	Other
Government-operated:				
Civilian agencies.....	18,964	\$760,655,575	92,320	4,524
Department of Defense, Military (manufacturing only).....	357	2,229,454,160	166,105	3,572
Total, Government operated.....	19,321	2,990,109,735	258,425	8,096
Government-owned, contractor-operated:				
Civilian agencies.....	301	4,028,545,658	None	None
Department of Defense, military (manufacturing only):				
Wholly-owned by Government.....	106	4,191,698,246	None	None
Partly-owned by Government.....	43	653,636,930	None	None
Total, Government-owned, contractor-operated.....	450	8,873,880,834	None	None
Grand total.....	19,771	11,863,990,569	258,425	8,096

The activities tabulated here fall into 232 of the 1,028 categories in the Standard Industrial Classification. Civilian agencies' activities are spread among 184 categories; the Defense manufacturing activities among 74 of the 469 categories for manufacturing in the classification.

Analysis of Government-operated activities

The activities which are owned and operated by the Government for its own use are classified as follows among the nine principal groups in the Standard Industrial Classification (in the Department of Defense, only the manufacturing category is included) :

	Number of installations	Capital assets	Number of Government employees	
			Civilian	Other
A. Agriculture, forestry, and fisheries.....	117	\$11,304,031	784	-----
B. Mining.....	11	2,369,561	34	-----
C. Contract construction.....	981	160,249,555	22,888	-----
D. Manufacturing:				
Civilian agencies.....	305	62,731,236	5,483	3,398
Department of Defense—military.....	357	2,229,454,160	166,105	3,572
E. Transportation, communication, and other public utilities.....	6,061	368,094,638	7,320	-----
F. Wholesale trade.....	13	11,230,393	503	-----
G. Retail trade.....	298	8,798,639	903	25
H. Finance, insurance, and real estate.....	328	10,523,169	1,230	-----
I. Services.....	10,850	125,354,353	53,175	1,109
Total.....	19,321	2,990,109,735	258,425	8,096

A. *Agriculture, forestry, and fisheries.*—The principal type of activity in this classification consists of farms conducted by the Department of Justice, the Department of Health, Education, and Welfare, and the Veterans' Administration; these are operated primarily for the purposes of rehabilitation and occupational therapy.

B. *Mining.*—The major part of the activity in this category is work performed by the Bureau of Mines, Department of the Interior, to develop and demonstrate improved mining methods.

C. *Contract construction.*—The Corps of Engineers accounts for a large proportion of the investment in capital assets in this group of activities; these assets are required in connection with its construction, dredging, and maintenance operation on the rivers, harbors, and waterways. The Tennessee Valley Authority is also significant in the field of contract construction, accounting for about half the total number of personnel shown above.

D. (1) *Manufacturing—civilian agencies.*—The two largest manufacturing activities consist of the helium plants of the Bureau of Mines and shipyard activities of the Coast Guard. The program of the Federal Prison Industries, Inc., includes 34 manufacturing installations of small size used for rehabilitation purposes. Also included in this group are a number of small printing plants of various Government agencies utilized for spot jobs.

D. (2) *Manufacturing—Department of Defense, military functions.*—The Navy shipyards account for more than \$1.5 billion of the assets reported for the manufacturing activities and for 113,000 of the civilian employees shown above. The manufacturing of ordnance and accessories, largely by the Army, accounts for over \$650 million of the capital assets and for more than 45,000 civilian employees. Other manufacturing activities of the Department of Defense are scattered through a wide range of subcategories.

E. *Transportation, communication, and other public utilities.*—The activities categorized in this group represent 46 percent of the total assets reported for civilian agencies in this inventory. This is mainly attributable to the Commodity Stabilization Service investment in grain bins for the Commodity Credit Corporation at 4,531 installations—valued at \$198 million. The General Services Administration also has a large investment in storage facilities, amounting to \$34 million; these are primarily for the stockpiling of strategic and critical materials essential to the military and industrial needs of the United States in times of national emergency. In addition to such warehousing and storage facilities, a number of Government agencies have some communications facilities, utilities, sanitary services, and similar items of their own.

F. *Wholesale trade.*—The storage and distribution functions conducted by the Veterans' Administration for its food and medical supplies are the predominant activity in this group.

G. *Retail trade.*—The operation of cafeterias in the Bureau of Indian Affairs for school feeding accounts for a major segment of these activities.

H. *Finance, insurance, and real estate.*—The real estate operations of Fish and Wildlife Service of the Department of the Interior, primarily pertaining to facilities management, rentals, and appraisals, are the largest activity reported here.

I. *Services.*—About two-thirds of the aggregate number of civilian installations are in this group. The largest single item is the custodial work performed at some 8,000 locations in the Post Office and at over 300 locations by the General Services Administration. This classification also includes duplicating, blue-printing, and photostating performed at 3,400 locations by a large number of agencies. Other services of a significant nature include laundries of the Veterans' Administration, automobile repair services and garages of several departments, radio broadcasting of the Union States Information Agency, and miscellaneous other services.

Analysis of Government-owned, contractor-operated activities

The Government-owned, contractor-operated activities reported in the inventory may be grouped as follows (in the Department of Defense, only the manufacturing category is included) :

	Number of installations	Capital assets	Number of civilian employees
A. Agriculture, forestry, and fisheries.....			
B. Mining.....	3	\$28, 910	21
C. Contract construction.....	1	1, 020, 000	18
D. Manufacturing:			
Civillian agencies.....	47	3, 357, 017, 000	45, 503
Department of Defense, military:			
Wholly Government-owned.....	106	4, 191, 698, 246	(1)
Partly Government-owned.....	43	653, 636, 930	(1)
E. Transportation, communication, and other public utilities..	113	167, 935, 844	2, 084
F. Wholesale trade.....			
G. Retail trade.....	6	1, 192, 904	71
H. Finance, insurance, and real estate.....	2	165, 000	
I. Services.....	129	501, 186, 000	21, 970
Total, civilian.....	301	4, 028, 545, 658	69, 667
Total, Department of Defense.....	149	4, 845, 335, 176	(1)
Grand total.....	450	8, 873, 880, 834	* 69, 667

¹ Not available.

² Employees shown are employees of contractors; such data are not reported for Department of Defense contracts.

The civilian figures given above are dominated by the activities of the Atomic Energy Commission, since all but a very few of its facilities are operated for the Commission by private contractors. The Atomic Energy Commission data cover 280 of the installations and \$4,011 million of the capital assets, as well as 68,649 of the employees.

The Department of Defense figures shown above, which are limited as in the other part of the inventory to manufacturing activities, exceed the \$1 billion mark in three instances: Manufacturing of ordnance and accessories, the manufacture of chemicals and allied products, and the manufacture of transportation equipment (primarily ships). The consolidated totals of assets of the contractor-operated manufacturing facilities of the Department of Defense are more than twice as large as the assets of the Government-operated manufacturing facilities of the Department.

The detailed inventory

Table V attached gives a more detailed breakdown of the foregoing figures, indicating each subcategory of activity and, within subcategories, a breakdown by department and (where applicable) by bureau. It should be noted that where activities are supporting to other major commercial-type facilities, the applicable amounts for installation, capital assets, and personnel are shown in parentheses. They are nonadditive figures, as the amounts thereof are included in the totals of the respective major activities.

This inventory presents information which indicates the size and scope of the total problem of commercial-industrial activities conducted by the Government for its own use. Such information is essential to an orderly approach to the problem.

APPENDIX AND TABLES

APPENDIX I

EXECUTIVE OFFICE OF THE PRESIDENT,
BUREAU OF THE BUDGET,
Washington, D. C., January 15, 1955.

BULLETIN No. 55-4

To the heads of executive departments and establishments.

Subject: Commercial-industrial activities of the Government providing products or services for governmental use.

1. *Purpose.*—This bulletin initiates a review of those commercial-industrial-type activities conducted by the Government that provide services or products for its own use which could be procured from private enterprise through ordinary business channels (hereafter called "commercial activities"). It also sets forth Government policy with respect to both the starting and carrying on of such activities.

The fact that this bulletin does not deal with products or services provided directly to the public in no way relieves the agencies of keeping such activities under constant review and reevaluation as to the need for the Government to carry on such activities. The results of such reevaluation will be reflected in the legislative and budget programs.

2. *Policy.*—It is the general policy of the administration that the Federal Government will not start or carry on any commercial activity to provide a service or product for its own use if such product or service can be procured from private enterprise through ordinary business channels. Exceptions to this policy shall be made by the head of an agency only where it is clearly demonstrated in each case that it is not in the public interest to procure such product or service from private enterprise.

3. *Responsibility.*—In furtherance of this policy, the head of each agency shall give personal direction to the accomplishment of the review (inventory and evaluation) of the activities of his agency which fall within the scope of this bulletin. He shall assign to a member of his key staff the responsibility for direction and coordination of this program throughout the agency.

4. *Scope and coverage of review.*—The review will consist of two phases: (a) an immediate inventory of all commercial activities, and (b) an evaluation of these activities, to be spread over a longer period of time. The first evaluation will cover manufacturing activities as set forth below. This will be followed periodically by similar evaluations of other commercial activities, such as wholesale and retail trade, repair and business services, construction, transportation, communication, public utilities, agriculture, forestry, fisheries, and mining. Instructions for later evaluation reports will be issued subsequently, but agencies may proceed with a program of evaluation and action as fast as time permits.

The following rules will prevail as to coverage of the review:

a. The review will cover activities carried on in the continental United States and in the Territories of Alaska and Hawaii.

b. In determining whether an activity is "commercial" in nature and "could be procured * * * through ordinary business channels," reference may be made to the Standard Industrial Classification Manual and to ordinary business practice with respect to procurement of services or products. The inclusion of an activity in the manual will be generally considered indicative that it may be procured commercially. There will be excluded from coverage as noncommercial, however, those functions which are a part of the normal management responsibilities of a Government agency or a private business of comparable size (such as accounting, personnel work, and the like).

c. Any activity at any one location which involves an equipment investment of less than \$5,000 and a product or service with an approximate annual value of less than \$25,000 shall be excluded.

d. "Activities conducted by the Government" will exclude Government-owned, contractor-operated facilities as far as evaluation is concerned, but will include such facilities for purposes of the inventory report.

e. "Activities * * * for its own use" will include the activities of producing a service or product primarily for the use of the Government (whether the same agency or other agencies), even though some portion of the product or service is sold or given to the public. The coverage will include activi-

ties which are to provide a service or product for the use of a Government agency in its official duties, even though the agency is engaged in carrying out a service to the public (e. g., it will include the manufacture of mail bags or the generation of power at a Government institution). However, the coverage will exclude the activities of producing a service or product primarily to be sold or given to the public (e. g., it will exclude the generation of power for sale to the public).

5. *Inventory of commercial activities.*—Each agency shall prepare an inventory of all commercial activities. The inventory shall identify the activity in terms of the Standard Industrial Classification Manual, the number of installations or the locations where the activity is conducted, the capital assets invested in the activity, and the average number of employees engaged in the activity. Exhibit 55-4A indicates the format for reporting this inventory to the Bureau of the Budget. Instructions for this report are contained in attachment A.

6. *Evaluation of manufacturing activities.*—Each agency shall make an evaluation of all its commercial activities which are classified as manufacturing in the inventory. Government-owned, contractor-operated activities included in the inventory report required under paragraph 5 above are not required to be evaluated at this time.

The evaluation should determine whether or not each of these manufacturing activities should be continued by the Government in the light of the objectives stated in paragraph 2 above.

The relative costs of Government operation compared to purchase from private sources will be a factor in the determination in those cases where the agency head concludes that the product or service cannot be purchased on a competitive basis and cannot be obtained at reasonable prices from private industry. In those cases it will be necessary to develop detailed data on such costs. In doing so, the costs of Government operation should be fairly computed and complete, covering both direct and indirect costs, including elements not usually chargeable to current appropriations such as depreciation, interest on the Government's investment, the cost of self-insurance (even though it is unfunded); there shall also be added an allowance for Federal, State, and local taxes to the extent necessary to put the costs on a comparable basis. Care must also be exercised to see that the costs of procuring material from private sources are fairly computed and complete, being truly representative of the lowest price the Government would pay for the quantity and quality needed, and taking account of any applicable indirect costs of the Government for such procurement.

The evaluation will also review the legal authorization for each activity and determine whether congressional action is necessary to permit discontinuance. Except where such congressional action would be required, activities should be discontinued as soon as the agency head determines that it is reasonably possible to do so. Where congressional action would be necessary to permit discontinuance, the agency head shall seek such action promptly, submitting drafts of legislation or appropriation language, as may be required, to the Bureau of the Budget in the usual manner.

The evaluation should proceed promptly so that a report of the results may be made as provided in paragraph 9 below. The report on each manufacturing activity conducted during any part of fiscal years 1954 and 1955 shall be submitted on exhibit 55-4B, showing what the agency head decides to do about the elimination, curtailment, or continuation of each activity. The form is divided into three sections. Section A shall be completed on all reportable activities. Section B shall be completed on those activities which are being curtailed, eliminated, or procured from commercial sources. Section C shall be completed for all activities which will continue as Government operations. Applicable questions only need to be answered. The justification for continuation as a Government operation must be complete. Instructions for this report are contained in attachment B.

7. *Applicability to Department of Defense.*—Inasmuch as the Department of Defense started its own review of these activities some months ago, special instructions will be issued for that Department in order to take full advantage of the work already done.

8. *Questions and interpretations.*—Any questions regarding completion of the forms or interpretation as to coverage should be presented to the respective Bureau of the Budget examiners.

9. *Reporting dates.*—The name of the individual designated to direct the program and three copies of whatever implementing instructions are issued by the agency shall be furnished the Bureau of the Budget by February 15, 1955.

Three copies of the inventory reports (exhibit 55-4A) shall be submitted to the Bureau of the Budget on or before April 15, 1955. Three copies of the reports on evaluation of manufacturing activities (exhibit 55-4B) shall be submitted to the Bureau of the Budget on or before July 15, 1955. Copies of the evaluation report form may be secured in limited quantity from the Bureau of the Budget Publications Unit, code 189, extension 616.

By direction of the President:

ROWLAND R. HUGHES, *Director.*

[Attachment A to Bureau of the Budget Bulletin No. 55-4]

INSTRUCTIONS FOR INVENTORY REPORT ON COMMERCIAL ACTIVITIES

Prepare the report on letter-size paper in the format appearing on the reverse.

A separate report shall be submitted for each bureau, service, or other major administrative unit within the agency.

List on separate pages and designate appropriately (a) those activities or services which are Government-operated, and (b) those which are Government-owned but contractor-operated.

Include all commercial activities conducted during any part of fiscal years 1954 or 1955.

Column 1: The type of activity or service should be classified according to the Standard Industrial Classification Manual (obtainable from the Superintendent of Documents), giving the industry classification number and the industry title as shown in the manual, and be followed by such additional words or phrases as will help to identify the specific activity or service. Where a major installation is itself a commercial activity and has a number of commercial activities as components, the installation should be listed by its overall functions and the component activities listed under it. Number each major activity consecutively beginning with the figure 1 on each page.

Column 2: If the activity is confined to one or a few locations, list them individually. If there are many locations, the number of separate facilities will be sufficient if accompanied by some general indication of locations.

Column 3: Estimate the value of capital assets used primarily for the activity. Use only one figure for the total of land, buildings, and equipment. Use same figures as reported to the General Services Administration in its Inventory of Federal Real Property Holdings, to the extent possible. For those activities not covered in the General Services Administration report, use same valuation basis (original cost) as used for that report.

Column 4: Show the average number of persons employed annually on the particular activity. This figure can be computed by averaging the figures reported to the Civil Service Commission on Standard Form 113. If the operation is seasonal, show the average employment for only the months during which the activity was performed and indicate in parentheses the number of months during which the activity was performed.

Column 5: Use this column for any special information considered pertinent from the standpoint of the development of an inventory. Do not try to justify the conduct of the activity here. Wherever necessary, justifications will be developed through subsequent surveys.

EXHIBIT 55-4A

Inventory report of commercial activities under Bureau of the Budget Bulletin No. 55-4

Page No. _____ of _____ (total).

Check one:

- Government-operated.
- Government-owned, contractor-operated.

Agency _____ Bureau _____ Date _____

Activity (1)	Location or number of installations (2)	Capital assets (3)	Number of employees (4)	Comment (5)

[Attachment B to Bureau of the Budget Bulletin No. 55-4]

INSTRUCTIONS FOR EVALUATION REPORT ON MANUFACTURING ACTIVITIES

Section A.—This section is to be filled out on all manufacturing activities. Answer only those questions which are applicable.

1. Use the industrial title from the Standard Industrial Classification Manual which describes the activity at the highest organization level that can be analyzed as a separate commercial activity, even though it may have a number of commercial activities as components. For example, a shipyard would be the industrial activity and not the individual activities which make up a shipyard, such as foundries, machine shops, etc.
2. Use the code number corresponding to the title from the Standard Industrial Classification Manual.
3. Refer to the proper page and line of the agency's inventory report previously submitted.
4. This should be the number of similar installations. Exclude those reported elsewhere as a part of another major activity.
5. If there are relatively few such installations, give their location. If there is a larger number of such installations, use some descriptive term, such as "at all dam construction sites" or "one in each seaboard State."
6. Show as subordinate activities the types listed in the Standard Industrial Classification Manual which form a part of the major activity listed in No. 1.
7. This should be an estimate of the total expenditures attributable to the activity for the fiscal year 1954.
8. This should be an estimate of the total expenditures attributable to the activity for the fiscal year 1955.
9. Show the number of employees assigned to the activity who were included on the Standard Form 113 report to the Civil Service Commission and the number of military personnel assigned to the activity.
10. If the number of employees shown in No. 9 is not representative of the normal or seasonal size of the operation, explain the seasonal character and give figures which reflect the maximum employment during the peak season.
11. On a percentage basis, account for the disposition made during fiscal year 1954 of the products manufactured.

12. The value of land and buildings should be the same (initial cost) as reported to the General Services Administration in connection with its survey of real property holdings. For those assets disposed of before or acquired after December 31, 1953, which are not included in the GSA survey, use the same concept of initial cost, or the best estimate thereof, in setting the asset figure. This concept should also govern the value placed on equipment which was not covered by the GSA survey.

13. Check the block which indicates the authority and circumstances under which the activity is conducted. If it is required by law check "Required." If it is specifically authorized but not required by law, check "Specifically authorized." If it is not specifically authorized or required but has been the subject of specific congressional approval in appropriation acts or some other legislation, check "Congressional approval" and explain the circumstances. If there is no specific approval, but the agency considers that its basic legislation authorizes the activity, check "General authorization." Use the "Other" block only if none of the previously mentioned categories is applicable, and explain the circumstances. Wherever there is legislation under which the activity is authorized, give the United States Code citation.

14. Indicate by a check what the agency head determines is to be done about the continuation of the activity. Check the block "Eliminate" if the Government operation is to be closed and the facilities disposed of: Check "Curtail" if the volume of activity is being reduced but the activity will continue as a Government operation. "Continue" will be used to denote the decision that it is in the public interest for the activity to be conducted as a Government operation. Check "Other" if the activity is being converted to a contractor-operated basis or some combination of ways of procuring the product. If the "Other" block is checked, give a brief explanation of what is to be done.

Section B.—This section should be completed for all activities on which No. 14 is not checked "Continue."

15. State exactly what is to be done.

16. Show the date on which the activity has been or will be eliminated, curtailed, or otherwise modified.

17. If the agency head's determination is not yet in effect, indicate the extent to which negotiations or other actions have progressed on the date of the report.

18. If the agency head's determination cannot be carried out because of existing law, summarize any legislative proposals being submitted to the Bureau of the Budget.

19. If the assets which were used in the conduct of the activity are to be sold or otherwise disposed of, so indicate. If they are not to be disposed of, give reasons.

20. If any of the assets have been disposed of, show the amount recovered from their sale. If they have not been but will be later, indicate an estimated amount to be recovered, adding "estimate."

21. Use the same basis for determining the value of the assets being retained as was used in estimating the value of the capital assets in No. 12.

22. There will normally be an entry on line 2 and in addition there may be one on lines 1 or 3, depending on the action being taken. The first line should show savings. The second should show amounts formerly spent for Government operations which hereafter will be spent for procurement of the product by direct purchase or contractual arrangements. The third line should show any increase in out-of-pocket costs of procuring the product, whether or not additional appropriations will be requested. The last line will be used for any other circumstances which will prevail. These need not be exact figures developed by a cost study but may be estimated amounts.

23. The changes in the numbers of persons engaged in the activity will be related to the answer on No. 9. The number eliminated does not necessarily mean that employment of the particular individuals will be terminated but it does mean that the personnel requirements of the agency will be reduced to that extent so far as the activity is concerned.

Section C.—This section is to be completed whenever the agency head decides that the activity is to be continued as a direct-Government operation.

24. This justification must be complete, showing the reasons why the agency head has decided that there is a clear demonstration that it is not in the public interest to procure such product from private enterprise.

25. If unavailability of the product commercially is a reason given in No. 24, this item will be used to indicate the circumstances under which the product is provided by private enterprise under normal business conditions. It should also indicate whether the geographical location of the activity is such that private enterprise is not in a position to fill the agency's needs. This should be answered only after specific analysis of the problem and must include a description of the steps which the agency has taken to be sure that private industry either can or cannot furnish the agency's needs.

26. If cost is a reason given in No. 24, this item will be used to indicate the comparative costs. Since cost should not usually be the deciding factor in determining whether to continue the operation as a direct-Government operation, this statement should show both the results of the comparative cost analysis and the elements which have been used in determining the Government cost, both as a direct operation and if the product is secured from private industry.

FEDERAL EXPENDITURE POLICY

EXHIBIT 65-48

EVALUATION REPORT UNDER BUREAU OF THE BUDGET BULLETIN NO. 65-4
ON GOVERNMENT OPERATED MANUFACTURING ACTIVITIES

(AGENCY) _____ (BUREAU) _____ (DATE) _____

ADDITIONAL INFORMATION WILL BE SUPPLIED BY _____ SUBMITTED BY: (SIGN) _____

NAME _____

TITLE _____ TEL. NO. _____ (TITLE) _____

SECTION A (TO BE COMPLETED ON EACH ACTIVITY EVALUATED)

1. INDUSTRIAL ACTIVITY TITLE	2. INDUSTRY CODE NO.	3. INVENTORY REPORT REFERENCE PAGE _____ LINE _____
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4. NO. OF INSTALLATIONS	5. LOCATION OF INSTALLATIONS
-------------------------	------------------------------

6. COMPONENT ACTIVITIES

7. EXPENDITURE FISCAL YEAR 1954 \$ _____ 8. EXPENDITURE FISCAL YEAR 1955 \$ _____

9. NO. EMPLOYEES JUNE 30, 1954: CIVILIAN _____ MILITARY _____	10. EXPLAIN ANY SPECIAL SEASONAL ACTIVITY PEAK EMPLOYMENT: CIVILIAN _____ MILITARY _____
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11. DISPOSITION OF PRODUCT FISCAL YEAR 1954: GOVERNMENT USE _____% DISTRIBUTED TO PUBLIC FREE _____% SOLD TO PUBLIC _____%

12. VALUE OF CAPITAL ASSETS: LAND \$ _____ BUILDINGS \$ _____ EQUIPMENT \$ _____

13. LEGAL AUTHORIZATION: REQUIRED SPECIFICALLY AUTHORIZED CONGRESSIONAL APPROVAL (EXPLAIN) GENERAL AUTHORIZATION OTHER (EXPLAIN)
U. S. CODE REFERENCE OR EXPLANATION _____14. AGENCY DETERMINATION: ELIMINATE CURTAIL CONTINUE OTHER (EXPLAIN)

SECTION B (TO BE COMPLETED ON ALL ACTIVITIES ON WHICH NO. 14 IS NOT CHECKED "CONTINUE")	
15. SPECIFIC ACTION	16. EFFECTIVE DATE OF ACTION _____
17. STATUS OF ACTION	18. EXPLAIN ANY LEGISLATION NEEDED TO EFFECT ACTION
19. DISPOSITION OF ASSETS	20. AMOUNT RECOVERED \$ _____ 21. VALUE OF ASSETS RETAINED \$ _____
22. EFFECT OF ANNUAL EXPENDITURES \$ _____ LESS WILL BE SPENT _____ WILL BE SPENT IN A DIFFERENT MANNER (AS PAYMENTS TO VENDORS OR CONTRACTORS RATHER THAN FOR PERSONNEL AND FACILITIES) _____ MORE WILL BE SPENT _____ OTHER (EXPLAIN)	23. REDUCTION IN NUMBER OF PERSONNEL _____ CIVILIAN } FEMER EMPLOYEES WILL BE _____ MILITARY } NEEDED _____ OTHER (EXPLAIN)

SECTION C (TO BE COMPLETED FOR ALL ACTIVITIES ON WHICH NO. 14 IS CHECKED "CONTINUE")

24. REASON FOR DECISION TO CONTINUE AS GOVERNMENT OPERATION (IF MORE SPACE IS NEEDED ATTACH A SEPARATE SHEET).

25. IF UNAVAILABILITY OF PRODUCT OR SERVICE COMMERCIALY IS REASON GIVEN IN NO. 24, EXPLAIN.

26. IF COST IS REASON GIVEN IN NO. 24, IDENTIFY ITEMS CONSIDERED IN COST COMPUTATIONS AND SOURCE OF COMMERCIAL COSTS USED IN COMPARISONS.

TABLE I.—Commercial activities of civilian agencies summarized by agency—
Reported under Budget Bulletin No. 55-4

A. GOVERNMENT OPERATED

	Number of installations	Capital assets	Number of employees	
			Civilian	Other
Department of Agriculture.....	5,044	\$228,494,348	8,113	-----
Department of Commerce.....	800	14,167,862	3,338	-----
Department of Defense (civil functions).....	317	118,186,000	9,611	-----
Department of Health, Education, and Welfare.....	162	5,238,856	2,153	-----
Department of the Interior.....	1,550	100,245,002	7,531	-----
Department of Justice.....	396	35,029,178	1,294	3,509
Department of Labor.....	2	57,488	77	-----
Post Office Department.....	8,292	47,940,325	24,191	-----
Department of State.....	9	651,180	135	-----
Treasury Department.....	79	22,155,132	3,606	1,015
Executive Office of the President.....	1	6,786	5	-----
General Services Administration.....	1,089	75,140,122	8,848	-----
Housing and Home Finance Agency.....	241	(¹)	1,130	-----
Atomic Energy Commission.....	4	2,662,000	198	-----
U. S. Civil Service Commission.....	11	169,107	92	-----
Federal Civil Defense Administration.....	1	10,286	6	-----
Federal Communications Commission.....	2	32,377	32	-----
Federal Deposit Insurance Corporation.....	1	21,212	7	-----
Federal Power Commission.....	1	47,220	20	-----
Federal Trade Commission.....	1	53,395	6	-----
General Accounting Office.....	1	137,051	14	-----
Interstate Commerce Commission.....	1	42,254	47	-----
National Advisory Committee for Aeronautics.....	53	8,439,000	1,175	-----
National Capital Housing Authority.....	5	61,000	1	-----
National Labor Relations Board.....	1	20,200	13	-----
Railroad Retirement Board.....	1	50,191	17	-----
Securities and Exchange Commission.....	1	64,582	13	-----
Small Business Administration.....	1	14,375	4	-----
Smithsonian Institution.....	1	8,000	35	-----
Tennessee Valley Authority.....	67	32,457,453	12,910	-----
U. S. Information Agency.....	20	16,139,249	204	-----
Veterans' Administration.....	809	52,914,314	7,494	-----
Total, Government operated.....	18,964	760,655,575	92,320	4,524

B. GOVERNMENT OWNED, CONTRACTOR OPERATED

Department of Defense (civil functions).....	11	\$2,385,000	350	-----
Treasury Department: Federal Facilities Corporation.....	1	13,184,000	600	-----
General Services Administration.....	8	1,378,754	68	-----
Tennessee Valley Authority.....	1	148,904	-----	-----
Atomic Energy Commission.....	280	4,011,449,000	68,649	-----
Total, Government owned, contractor operated.....	301	4,028,545,658	69,667	-----
Grand total.....	19,265	4,789,201,233	161,987	4,524

¹ Information not available.

TABLE II.—Commercial activities of civilian agencies summarized by industrial group—Reported under Budget Bulletin No. 55-4

A. GOVERNMENT OPERATED

	Number of installations	Capital assets	Number of employees	
			Civilian	Other
A. Agriculture, forestry, and fisheries:				
Farms.....	82	\$8,950,077	489	-----
Agricultural services and hunting and trapping.....	9	295,587	80	-----
Forestry.....	26	2,058,367	215	-----
Subtotal.....	117	11,304,031	784	-----
B. Mining:				
Metal mining.....	8	2,353,561	24	-----
Mining and quarrying of nonmetallic minerals, except fuels.....	3	16,000	10	-----
Subtotal.....	11	2,369,561	34	-----
C. Contract construction:				
Building construction, general contractors.....	412	10,457,631	3,876	-----
Construction, other than building construction, general contractors.....	444	146,354,783	18,013	-----
Construction, special trade contractors.....	125	3,437,141	999	-----
Subtotal.....	981	160,249,555	22,888	-----
D. Manufacturing:				
Ordnance and accessories.....	1	(1)	550	-----
Food and kindred products.....	111	3,247,037	308	144
Textile mill products.....	2	4,490,967	53	762
Apparel and other finished products made from fabric and similar materials.....	15	1,285,063	290	524
Lumber and wood products (except furniture).....	7	1,921,988	537	125
Furniture and fixtures.....	8	2,186,143	85	764
Paper and allied products.....	1	710	1	13
Printing, publishing, and allied industries.....	68	2,875,678	687	64
Chemicals and allied products.....	25	19,713,263	358	-----
Rubber products.....	1	6,474	-----	-----
Leather and leather products.....	2	1,016,385	20	441
Stone, clay, and glass products.....	4	235,568	16	-----
Primary metal industries.....	5	2,474,129	209	29
Fabricated metal products (except ordnance, machinery, and transportation equipment).....	4	1,052,431	150	-----
Machinery (except electrical).....	8	2,847,440	214	50
Electrical machinery, equipment, and supplies.....	3	17,754	146	-----
Transportation equipment.....	9	16,662,245	1,422	171
Professional, scientific, and controlling instruments; photographic and optical goods, watches and clocks.....	28	2,178,688	421	-----
Miscellaneous manufacturing industries.....	3	519,273	16	311
Subtotal.....	305	62,731,236	5,483	3,398
E. Transportation, communication, and other public utilities:				
Railroads.....	3	869,568	6	-----
Local and interurban railways and bus lines.....	4	330,616	12	-----
Trucking and warehousing.....	4,753	308,043,018	5,511	-----
Highway transportation, not elsewhere classified.....	17	525,294	60	-----
Water transportation.....	49	9,470,424	273	-----
Transportation by air.....	154	3,354,592	137	-----
Services incidental to transportation.....	1	15,018	6	-----
Telecommunications.....	714	20,661,748	713	-----
Utilities and sanitary services.....	366	24,824,360	602	-----
Subtotal.....	6,061	368,094,638	7,320	-----

¹ Information not available.

TABLE II.—Commercial activities of civilian agencies summarized by industrial group—Reported under Budget Bulletin No. 55-4—Continued

A. GOVERNMENT OPERATED—Continued

	Number of installations	Capital assets	Number of employees	
			Civilian	Other
F. Wholesale trade:				
Wholesale trade, merchant wholesalers.....	7	\$9,230,393	497	-----
Wholesale trade, other than merchant wholesalers.....	6	2,000,000	6	-----
Subtotal.....	13	11,230,393	503	-----
G. Retail trade:				
Retail trade:				
General merchandise.....	1	500,000	4	-----
Food.....	1	132,753	2	26
Automotive dealers and gasoline service stations.....	44	287,969	30	-----
Retail trade, eating and drinking places.....	252	7,877,917	867	-----
Subtotal.....	298	8,798,639	903	26
H. Finance, insurance, and real estate:				
Credit agencies other than banks.....	8	(1)	46	-----
Insurance carriers.....	1	225,739	1	-----
Real estate.....	319	10,297,430	1,183	-----
Subtotal.....	328	10,523,169	1,230	-----
I. Services:				
Hotels, rooming houses, camps, and other lodging places.....	12	682,615	22	-----
Personal services.....	399	34,322,437	4,567	130
Miscellaneous business services.....	8,932	21,544,068	32,336	8
Automobile repair services and garages.....	498	13,643,356	4,164	-----
Miscellaneous repair services.....	216	18,165,934	3,395	944
Radio broadcasting (including facsimile broadcasting) and television.....	14	16,527,899	143	-----
Motion pictures.....	9	641,039	67	-----
Amusement and recreation services, except motion pictures.....	1	5,313	2	-----
Medical and other health services.....	52	4,007,062	388	15
Legal services.....	1	2,250	6	-----
Educational services.....	48	2,231,729	172	3
Miscellaneous services.....	668	13,580,051	7,923	-----
Subtotal.....	10,850	125,354,353	53,175	1,100
Total, Government operated.....	18,964	760,655,575	92,320	4,524

B. GOVERNMENT OWNED, CONTRACTOR OPERATED

B. Mining: Mining and quarrying of nonmetallic minerals, except fuels.....	3	\$28,910	21	-----
C. Contract construction: Construction other than building construction—general contractors.....	1	1,020,000	18	-----
D. Manufacturing:				
Ordnance and accessories.....	9	594,709,000	17,378	-----
Printing, publishing, and allied industries.....	16	1,064,000	291	-----
Chemicals and allied products.....	13	2,746,023,000	26,882	-----
Stone, clay, and glass products.....	8	2,037,000	352	-----
Primary metal products.....	1	13,184,000	600	-----
Subtotal.....	47	3,357,017,000	45,503	-----
E. Transportation, communication, and other public utilities:				
Trucking and warehousing.....	69	14,080,844	1,216	-----
Transportation by air.....	3	188,000	5	-----
Telecommunications.....	3	5,350,000	93	-----
Utilities and sanitary services.....	38	148,317,000	770	-----
Subtotal.....	113	167,935,844	2,084	-----
G. Retail trade: Retail trade—eating and drinking places.....	6	1,192,904	71	-----
H. Finance, insurance, and real estate: Real estate.....	2	165,000	-----	-----

¹ Information not available.

TABLE II.—Commercial activities of civilian agencies summarized by industrial group—Reported under Budget Bulletin No. 55-4—Continued

B. GOVERNMENT OWNED, CONTRACTOR OPERATED—Continued

	Number of installations	Capital assets	Number of employees	
			Civilian	Other
I. Services:				
Personal services.....	13	\$2,061,000	243	-----
Miscellaneous business services.....	65	459,406,000	17,636	-----
Automobile repair services and garages.....	23	11,082,000	913	-----
Miscellaneous repair services.....	27	26,286,000	2,918	-----
Medical and other health services.....	1	2,351,000	260	-----
Subtotal.....	129	501,186,000	21,970	-----
Total, Government owned, contractor operated.....	301	4,028,545,658	69,667	-----
Grand total.....	19,265	4,789,201,233	161,987	4,524

† Information not available.

TABLE III.—Manufacturing activities of the Department of Defense summarized by organization unit—Reported under Budget Bulletin No. 55-4

A. GOVERNMENT OPERATED

	Number of installations	Capital assets	Number of employees	
			Civilian	Other
Department of the Army.....	158	\$460,185,058	31,422	218
Department of the Navy.....	156	1,766,832,189	133,697	3,317
Department of the Air Force.....	43	2,436,913	986	37
Total, Government operated.....	357	2,229,454,160	166,105	3,572

B. GOVERNMENT OWNED, CONTRACTOR OPERATED

Department of the Army.....	35	\$2,331,884,594	-----	-----
Department of the Navy.....	41	1,051,810,834	-----	-----
Department of the Air Force.....	30	808,002,768	-----	-----
Total, Government owned, contractor operated.....	106	4,191,698,246	-----	-----

C. GOVERNMENT PARTLY OWNED, CONTRACTOR OPERATED

Department of the Army.....	3	\$28,490,542	-----	-----
Department of the Navy.....	27	202,611,148	-----	-----
Department of the Air Force.....	13	422,535,240	-----	-----
Total, Government partly owned, contractor operated.....	43	653,636,930	-----	-----
Grand total.....	506	7,074,789,336	166,105	3,572

TABLE IV.—*Manufacturing activities of the Department of Defense summarized by industrial group—Reported under Budget Bulletin No. 55-4*

A. GOVERNMENT OPERATED

	Number of installations	Capital assets	Number of employees	
			Civilian	Other
Ordnance and accessories.....	35	\$657,795,846	45,687	210
Food and kindred products.....	84	1,601,220	69	71
Textile mill products.....	1	(¹)	(¹)	-----
Apparel and other finished products made from fabrics, and similar materials.....	8	1,188,132	546	-----
Lumber and wood products (except furniture).....	78	7,838,871	3,183	21
Paper and allied products.....	28	1,209,577	94	-----
Chemicals and allied products.....	17	4,678,386	187	2
Rubber products.....	4	233,437	16	-----
Leather and leather products.....	1	150,000	185	-----
Primary metal industries.....	16	10,726,069	298	-----
Fabricated metal products (except ordnance, machinery, and transportation equipment).....	20	18,368,106	950	1
Machinery (except electrical).....	10	7,395,377	450	1
Transportation equipment.....	15	1,512,109,184	113,762	3,188
Professional, scientific and controlling instruments; photographic and optical goods; watches and clocks..	18	(¹)	(¹)	-----
Miscellaneous manufacturing industries.....	22	6,159,955	648	78
Total, Government operated.....	357	2,229,454,160	166,105	3,572

B. GOVERNMENT OWNED, CONTRACTOR OPERATED

Ordnance and accessories.....	48	\$1,687,852,978	-----	-----
Chemicals and allied products.....	12	1,140,067,886	-----	-----
Primary metal industries.....	2	40,354,680	-----	-----
Machinery (except electrical).....	2	45,928,056	-----	-----
Electrical machinery, equipment, and supplies.....	1	2,367,497	-----	-----
Transportation equipment.....	39	1,246,128,052	-----	-----
Professional, scientific, and controlling instruments; photographic and optical goods; watches and clocks..	2	28,999,097	-----	-----
Total, Government owned, contractor operated..	106	4,191,698,246	-----	-----

C. GOVERNMENT PARTLY OWNED, CONTRACTOR OPERATED

Ordnance and accessories.....	3	\$28,490,542	-----	-----
Primary metal industries.....	4	44,689,741	-----	-----
Electrical machinery, equipment, and supplies.....	1	4,137,387	-----	-----
Transportation equipment.....	35	576,319,260	-----	-----
Total, Government partly owned, contractor operated.....	43	653,636,930	-----	-----
Grand total.....	506	7,074,789,336	166,105	3,572

¹ Information not available.

TABLE V.—Commercial activities (excluding nonmanufacturing activities of the Department of Defense), arranged by industrial group and organization unit—Reported under Budget Bulletin No. 55-4

A. GOVERNMENT OPERATED, CIVILIAN AGENCIES

SICM* Code	Industry	Number of installations	Capital assets	Number of employees	
				Civilian	Other
01 0115	Farms: Livestock farms (commercial): Department of the Interior: Bureau of Indian Affairs.....	20	\$1,017,637	60	-----
0116	General farms: Department of Health, Education, and Welfare: Public Health Service, Bureau of Medical Services.....	2	120,774	132	-----
	Department of the Interior: Bureau of Indian Affairs.....	15	987,685	64	-----
	Subtotal.....	17	1,108,459	196	-----
0121	Noncommercial farms: Department of Health, Education, and Welfare: St. Elizabeths Hospital.....	1	64,234	10	-----
	Department of Justice: Bureau of Prisons.....	23	4,674,352	116	-----
	Veterans' Administration: Department of Medicine and Surgery.....	21	2,085,395	107	-----
	Subtotal.....	45	6,823,981	233	-----
	Total, farms.....	82	8,950,077	489	-----
07 0729	Agricultural services and hunting and trapping: Animal husbandry services, not elsewhere classified: Department of Agriculture: Agricultural Research Service.....	2	156,000	18	-----
	Department of Health, Education, and Welfare: Public Health Service, Bureau of State Services.....	1	14,117	3	-----
	Subtotal.....	3	170,117	21	-----
0731	Horticultural services: Department of Agriculture: Agricultural Research Service.....	2	11,109	9	-----
	Department of Commerce: National Bureau of Standards.....	2	36,021	11	-----
	Department of Health, Education, and Welfare: Public Health Service, National Institutes of Health.....	1	66,340	35	-----
	Department of the Interior: Bureau of Reclamation.....	1	12,000	4	-----
	Subtotal.....	6	125,470	59	-----
	Total, agricultural services and hunting and trapping.....	9	295,587	80	-----
08 0811	Forestry: Timber tracts: Department of the Interior: Bureau of Land Management.....	11		42	-----
0821	Forest nurseries: Department of Agriculture: Forest Service.....	13	1,950,223	140	-----
	Tennessee Valley Authority.....	1	104,644	21	-----
	Subtotal.....	14	2,054,867	161	-----
0831	Reforestation: Department of the Interior: Bureau of Reclamation.....	1	3,500	12	-----
	Total, forestry.....	26	2,058,367	215	-----
10 1081	Metal mining: Metal mining contract services: Department of the Interior: Bureau of Mines.....	8	2,353,561	24	-----

*Standard Industrial Classification Manual.

TABLE V.—Commercial activities (excluding nonmanufacturing activities of the Department of Defense), arranged by industrial group and organization unit—Reported under Budget Bulletin No. 55-4—Continued

A. GOVERNMENT OPERATED, CIVILIAN AGENCIES—Continued

SICM* Code	Industry	Number of instal- lations	Capital assets	Number of employees	
				Civilian	Other
14	Mining and quarrying of nonmetallic minerals, except fuels:				
1423	Crushed and broken granite: Department of the Interior: Bureau of Reclamation.....	2	\$6,000	3	-----
1441	Sand and gravel: Department of the Interior: Bureau of Reclamation.....	1	10,000	7	-----
	Total, mining and quarrying of nonmetallic minerals, except fuels.....	3	16,000	10	-----
15	Building construction, general contractors:				
1511	General building contractors:				
	Department of Agriculture: Agricultural Research Service.....	1	103,483	150	-----
	Department of Commerce:				
	Civil Aeronautics Administration.....	17	219,417	950	-----
	National Bureau of Standards.....	2	979,997	187	-----
	Subtotal.....	19	1,199,414	1,137	-----
	Department of the Interior:				
	Bureau of Indian Affairs.....	5	796,866	64	-----
	Bureau of Land Management.....	3	100,000	-----	-----
	Bureau of Reclamation.....	21	1,610,535	146	-----
	Office of Territories.....	10	184,000	42	-----
	Subtotal.....	39	2,691,401	252	-----
	Treasury Department:				
	Office of the Secretary, Office of Administrative Services.....	1	24,808	64	-----
	Bureau of Engraving and Printing.....	1	86,063	44	-----
	Subtotal.....	2	110,871	108	-----
	General Services Administration: Public Buildings Service.....	82	79,477	91	-----
	National Advisory Committee for Aeronautics.....	5	1,138,000	412	-----
	Veterans' Administration:				
	Office of Assistant Administrator for Construction.....	176	-----	144	-----
	Department of Medicine and Surgery.....	88	5,134,985	1,582	-----
	Subtotal.....	264	5,134,985	1,726	-----
	Total, building construction, general contractors.....	412	10,457,631	3,876	-----
16	Construction, other than building construction, general contractors:				
1611	Highway and street construction (except elevated highways):				
	Department of Agriculture:				
	Agricultural Research Service.....	1	19,072	7	-----
	Forest Service.....	149	10,600,000	2,900	-----
	Subtotal.....	150	10,619,072	2,907	-----
	Department of the Interior:				
	Bureau of Indian Affairs.....	105	4,000,000	693	-----
	Bureau of Reclamation.....	8	175,090	54	-----
	Subtotal.....	113	4,175,090	647	-----
	General Services Administration: Public Buildings Service.....	3	136,700	15	-----
	Subtotal.....	266	14,930,862	3,569	-----

*Standard Industrial Classification Manual.

TABLE V.—Commercial activities (excluding nonmanufacturing activities of the Department of Defense), arranged by industrial group and organization unit—Reported under Budget Bulletin No. 55-4—Continued

A. GOVERNMENT OPERATED, CIVILIAN AGENCIES—Continued

SIOM* Code	Industry	Number of installations	Capital assets	Number of employees	
				Civilian	Other
16 1621	Construction, etc.—Continued Heavy construction, except highway and street construction: Department of Defense: Civil functions, Corps of Engineers.....	78	\$96,837,000	3,173	-----
	Department of the Interior: Bureau of Indian Affairs.....	47	3,746,108	108	-----
	Bureau of Reclamation.....	4	430,650	46	-----
	Subtotal.....	51	4,176,758	154	-----
	Department of State: International Boundary and Water Commission.....	1	63,163	15	-----
	Tennessee Valley Authority.....	48	30,347,000	11,102	-----
	Subtotal.....	178	131,423,921	14,444	-----
	Total, construction, other than building construction-general contractors.....	444	146,354,783	18,013	-----
17 1700	Construction, special trade contractors: Maintenance: Department of the Interior: Bureau of Indian Affairs.....	86	1,159,984	356	-----
1711	Plumbing, heating, and air conditioning: Department of Agriculture: Agricultural Research Service.....	2	36,207	11	-----
	Department of Health, Education, and Welfare: St. Elizabeths Hospital.....	1	26,040	45	-----
	Department of the Interior: Bureau of Mines.....	3	18,471	14	-----
	Bonneville Power Administration.....	(1)	(¹)	(¹)	-----
	Treasury Department: Bureau of Engraving and Printing.....	1	(¹)	63	-----
	General Services Administration: Public Buildings Service.....	1	7,272	18	-----
	Subtotal.....	8	87,990	151	-----
1721	Painting, paperhanging, and decorating: Department of Agriculture: Agricultural Research Service.....	1	19,595	3	-----
	Department of Health, Education, and Welfare: St. Elizabeths Hospital.....	1	19,872	20	-----
	Department of the Interior: Bonneville Power Administration.....	(1)	(¹)	(¹)	-----
	General Services Administration: Public Buildings Service.....	{ 9 (7)	{ 4,264 (20,200)	{ 75 (6)	-----
	Subtotal.....	11	43,731	98	-----
1731	Electrical work: Department of Health, Education and Welfare: St. Elizabeths Hospital.....	1	27,135	28	-----
	Department of the Interior: Bureau of Mines.....	2	185,625	27	-----
	Bonneville Power Administration.....	(1)	(¹)	(¹)	-----
	Treasury Department: Bureau of Engraving and Printing.....	1	1,251,956	73	-----
	Subtotal.....	4	1,464,716	128	-----
1741	Masonry, stonemasonry, and other stonework: General Services Administration: Public Buildings Service.....	1	8,783	29	-----
1742	Plastering and lathing: General Services Administration: Public Buildings Service.....	{ (1) (1)	{ (1) (1)	{ (1) (1)	-----

¹ Information not available.

*Standard Industrial Classification Manual.

TABLE V.—Commercial activities (excluding nonmanufacturing activities of the Department of Defense), arranged by industrial group and organization unit—Reported under Budget Bulletin No. 55-4—Continued

A. GOVERNMENT OPERATED, CIVILIAN AGENCIES—Continued

SICM* Code	Industry	Number of instal- lations	Capital assets	Number of employees	
				Civilian	Other
17	Construction, etc.—Continued				
1751	Carpentering:				
	Department of Agriculture: Forest Service.....	1		12	
	Department of the Interior:				
	Bureau of Mines.....	2	\$27,033	6	
	Bonneville Power Administration.....	(1)	(¹)	(¹)	
	General Services Administration: Public Buildings Service.....	1	53,500	3	
	Subtotal.....	4	80,533	21	
1761	Roofing and sheet-metal work:				
	Department of the Interior: Bonneville Power Administration.....	(1)	(¹)	(¹)	
	General Services Administration: Public Buildings Service.....	1	10,572	16	
1781	Water-well drilling: Department of the Interior:				
	Bureau of Reclamation.....	1	10,000		
1791	Structural-steel erection: Department of Com- merce: Coast and Geodetic Survey.....	8	335,512	111	
1799	Special trade contractors, not elsewhere class- fied: Treasury Department: Bureau of En- graving and Printing.....	1	235,320	89	
	Total, construction, special trade contractors.....	125	3,437,141	999	
19	Ordnance and accessories:				
1929	Ammunition, not elsewhere classified: Tennes- see Valley Authority.....	1		550	
20	Food and kindred products:				
2011	Meatpacking, wholesale: Department of Health, Education, and Welfare: Public Health Ser- vice, Bureau of Medical Services.....	1	26,157	3	
2024	Ice cream and ices:				
	Department of Health, Education, and Welfare: St. Elizabeths Hospital.....	1	17,484	3	
	Veterans' Administration: Department of Medicine and Surgery.....	15	160,574	11	
	Subtotal.....	16	178,058	14	
2033	Canned fruits, vegetables, and soups; preserves, jams, and jellies: Department of Justice:				
	Federal Prison Industries, Inc.....	2	506,749	4	144
2042	Prepared feeds for animals and fowls: Depart- ment of Agriculture: Agricultural Research Service.....	1	186,397	5	
2051	Bread and other bakery products (except biscuit, crackers, and pretzels):				
	Department of Defense: Civil Functions, United States Soldiers' Home.....	1	(¹)	7	
	Department of Health, Education, and Welfare:				
	Public Health Service: Bureau of Medical Services.....	2	22,642	15	
	St. Elizabeths Hospital.....	1	74,699	10	
	Subtotal.....	3	97,341	25	
	Department of the Interior: Bureau of Indian Affairs.....	28	437,477	38	
	Veterans' Administration: Department of Medicine and Surgery.....	51	1,749,155	209	
	Subtotal.....	83	2,283,973	279	

¹ Information not available.

*Standard Industrial Classification Manual.

TABLE V.—Commercial activities (excluding nonmanufacturing activities of the Department of Defense), arranged by industrial group and organization unit—Reported under Budget Bulletin No. 55-4—Continued

A. GOVERNMENT OPERATED, CIVILIAN AGENCIES—Continued

SIC* Code	Industry	Number of installations	Capital assets	Number of employees	
				Civilian	Other
20	Food, etc.—Continued				
2097	Manufactured ice:				
	Department of Health, Education, and Welfare: Public Health Service, Bureau of Medical Services.....	5	\$38,603	2	-----
	Veterans' Administration: Department of Medicine and Surgery.....	3	27,100	1	-----
		8	65,703	3	-----
	Total, food and kindred products.....	111	3,247,037	308	144
22	Textile mill products:				
2231	Broad-woven fabric mills:				
	Cotton, silk, and synthetic fiber: Department of Justice: Federal Prison Industries, Inc.....	1	2,614,447	40	598
2232	Woolen and worsted: Department of Justice: Federal Prison Industries, Inc.....	1	1,876,520	13	164
	Total, textile mill products.....	2	4,490,967	53	762
23	Apparel and other finished products made from fabrics and similar materials:				
2300	Garment factory: Department of the Interior: Bureau of Indian Affairs.....	1	28,200	28	-----
2321	Men's, youths', and boys' shirts (except work shirts), collars, and nightwear: Department of Justice: Federal Prison Industries, Inc.....	1	346,916	3	58
	Veterans' Administration: Department of Medicine and Surgery.....	1	6,009	1	-----
	Subtotal.....	2	352,925	4	58
2327	Men's, youths', and boys' separate trousers: Department of Justice: Federal Prison Industries, Inc.....	1	21,246	3	62
2328	Work shirts: Department of Justice: Federal Prison Industries, Inc.....	1	102,657	8	86
2329	Men's, youths', and boys' work, sport, and other clothing, not elsewhere classified: Department of Justice: Federal Prison Industries, Inc.....	3	125,572	7	172
2330	Women's and misses' outerwear: Department of Health, Education, and Welfare: St. Elizabeths Hospital.....	1	91,606	10	-----
2334	Household apparel: Department of Health, Education, and Welfare: Public Health Service—Bureau of Medical Services.....	2	46,553	142	-----
2341	St. Elizabeths Hospital.....	(1)	(1)	(1)	-----
2341	Women's, misses', children's, and infants' underwear and nightwear: Department of Health, Education, and Welfare: St. Elizabeths Hospital.....	(1)	(1)	(1)	-----
2382	Work gloves and mittens (fabric, fabric and leather combined): Department of Justice: Federal Prison Industries, Inc.....	2	84,086	6	83
2392	Housefurnishings (except curtains and draperies): Department of Health, Education, and Welfare: St. Elizabeths Hospital.....	(1)	(1)	(1)	-----
2393	Textile bags: Post Office Department: Bureau of Facilities.....	1	367,131	79	-----
2394	Canvas products: Department of Justice: Federal Prison Industries, Inc.....	1	65,087	3	63
	Total, apparel and other finished products made from fabrics and similar materials.....	15	1,285,063	290	524

¹ Information not available.

*Standard Industrial Classification Manual.

TABLE V.—Commercial activities (excluding nonmanufacturing activities of the Department of Defense), arranged by industrial group and organization unit—Reported under Budget Bulletin No. 55-4—Continued

A. GOVERNMENT OPERATED, CIVILIAN AGENCIES—Continued

SICM* Code	Industry	Number of installations	Capital assets	Number of employees	
				Civilian	Other
24 2411	Lumber and wood products (except furniture): Logging camps and logging contractors: Department of the Interior: Bureau of Indian Affairs.....	2	\$311,507	215	-----
2421	Sawmills and planing mills, general: Department of the Interior: Bureau of Indian Affairs.....	3	1,449,871	317	-----
	Department of Justice: Federal Prison Industries, Inc.....	1	114,489	4	90
2499	Subtotal.....	4	1,564,360	321	90
	Wooden products, not elsewhere classified: Department of Justice: Federal Prison Industries, Inc.....	1	46,121	1	35
	Total, lumber and wood products (except furniture).....	7	1,921,988	537	125
25	Furniture and fixtures:				
2515	Mattresses and bedsprings: Department of Justice: Federal Prison Industries, Inc.....	1	63,892	2	41
2521	Wood office furniture: Department of Justice: Federal Prison Industries, Inc.....	3	902,825	36	368
2532	Professional furniture: Department of Commerce: Coast and Geodetic Survey.....	1	8,275	3	-----
2541	Partitions, shelving, lockers, and office and store fixtures:				
	Department of Commerce: Bureau of the Census.....	1	8,795	2	-----
	Department of Justice: Federal Prison Industries, Inc.....	2	1,202,356	42	355
	Subtotal.....	3	1,211,151	44	355
	Total, furniture and fixtures.....	8	2,186,143	85	764
26 2699	Paper and allied products: Converted paper products, not elsewhere classified: Department of Justice: Federal Prison Industries, Inc.....	1	710	1	13
27 2732	Printing, publishing, and allied industries: Book printing: Department of Agriculture: Office of Plant and Operations.....	(1)	(1)	(1)	-----
	National Advisory Committee for Aeronautics.....	3	309,000	54	-----
2741	Miscellaneous publishing: Department of Agriculture: Forest Service.....	1	10,000	30	-----
	Department of Commerce: Coast and Geodetic Survey.....	1	85,283	18	-----
	Subtotal.....	2	95,283	48	-----
2751	Commercial printing: Department of Agriculture: Office of Plant and Operations.....	(1)	(1)	(1)	-----
	Department of Defense: Civil Functions: Corps of Engineers.....	23	292,000	70	-----
	Department of Health, Education, and Welfare: Public Health Service, Bureau of Medical Services.....	1	34,959	17	-----
	Department of the Interior: Bureau of Indian Affairs.....	5	310,200	14	-----
	Bureau of Mines.....	1	7,090	1	-----
	Subtotal.....	6	317,290	15	-----
	Department of Justice: Federal Prison Industries, Inc.....	3	343,101	9	64
	Post Office Department: Bureau of Post Office Operations.....	8	29,000	16	-----

¹ Information not available.

*Standard Industrial Classification Manual.

TABLE V.—Commercial activities (excluding nonmanufacturing activities of the Department of Defense), arranged by industrial group and organization unit—Reported under Budget Bulletin No. 55-4—Continued

A. GOVERNMENT OPERATED, CIVILIAN AGENCIES—Continued

SICM* Code	Industry	Number of Instal- lations	Capital assets	Number of employees	
				Civilian	Other
27	Printing, etc.—Continued				
	Commercial printing—Continued				
	General Services Administration: Office of the Administrator, Office of Management.....	1	\$41,327	27	-----
	Atomic Energy Commission.....	1	154,000	59	-----
	Federal Civil Defense Administration.....	1	10,286	6	-----
	Federal Deposit Insurance Corporation.....	1	21,212	7	-----
	Federal Trade Commission.....	1	53,395	6	-----
	Subtotal.....	46	1,296,570	232	64
2761	Lithographing:				
	Department of Agriculture:				
	Soil Conservation Service.....	7	179,000	31	-----
	Office of Plant and Operations.....	(1)	(1)	(1)	-----
	Department of Commerce:				
	Office of Publications.....	2	193,026	68	-----
	Coast and Geodetic Survey.....	3	561,065	113	-----
	Weather Bureau.....	1	119,027	27	-----
	Subtotal.....	6	873,118	208	-----
	Department of the Interior: Bureau of Reclamation.....	2	47,671	21	-----
	Subtotal.....	15	1,099,789	260	-----
2791	Typesetting: Department of Commerce: Coast and Geodetic Survey.....	1	61,947	17	-----
2793	Photoengraving: Department of Commerce: Coast and Geodetic Survey.....	1	13,089	76	-----
	Total, printing, publishing, and allied industries.....	68	2,875,673	687	64
28	Chemicals and allied products:				
2819	Industrial inorganic chemicals, not elsewhere classified: Department of Defense, civil functions, Corps of Engineers.....	1	241,000	4	-----
2831	Biological products:				
	Department of Agriculture: Agricultural Research Service.....	2	82,507	9	-----
	Department of Health Education, and Welfare: Public Health Service—National Institutes of Health.....	1	20,970	9	-----
	Veterans' Administration: Department of Medicine and Surgery.....	3	194,959	13	-----
	Subtotal.....	6	298,436	31	-----
2834	Pharmaceutical products:				
	Department of Health, Education, and Welfare: Public Health Service—Office of Surgeon General.....	1	17,772	4	-----
	Veterans' Administration: Department of Medicine and Surgery.....	3	34,720	8	-----
	Subtotal.....	4	52,492	12	-----
2891	Printing ink: Treasury Department: Bureau of Engraving and Printing.....	1	223,806	54	-----
2894	Glue and gelatin: Treasury Department: Bureau of Engraving and Printing.....	1	(1)	3	-----
2896	Compressed and liquified gases:				
	Department of Commerce: National Bureau of Standards.....	2	2,457,717	19	-----
	Department of the Interior: Bureau of Mines.....	7	14,672,812	231	-----
	National Advisory Committee for Aeronautics.....	3	1,767,000	4	-----
	Subtotal.....	12	18,897,529	254	-----
	Total, chemicals and allied products.....	25	19,713,263	358	-----

¹ Information not available.

*Standard Industrial Classification Manual.

TABLE V.—Commercial activities (excluding nonmanufacturing activities of the Department of Defense), arranged by industrial group and organization unit—Reported under Budget Bulletin No. 55-4—Continued

A. GOVERNMENT OPERATED, CIVILIAN AGENCIES—Continued

SICM* Code	Industry	Number of installations	Capital assets	Number of employees	
				Civilian	Other
30 3099	Rubber products: Rubber industries, not elsewhere classified: Department of Justice: Federal Prison Industries, Inc.-----	1	\$6,474		
31 3140	Leather and leather products: Footwear: Department of Health, Education, and Welfare: St. Elizabeths Hospital.....	1	120,704	2	
3141	Footwear (except house slippers and rubber footwear): Department of Health, Education, and Welfare: St. Elizabeths Hospital.....	(¹)	(¹)	(¹)	
	Department of Justice: Federal Prison Industries, Inc.-----	1	895,681	18	441
	Total, leather and leather products.....	2	1,016,385	20	441
32 3229	Stone, clay, and glass products: Pressed and blown glassware, not elsewhere classified: Department of Agriculture: Agricultural Research Service.....	2	16,364	2	
	Department of Commerce: National Bureau of Standards.....	2	219,204	14	
	Total, stone, clay, and glass products....	4	235,568	16	
33 3313	Primary metal industries: Electrometallurgical products: Department of the Interior: Bureau of Mines.....	2	2,312,022	200	
3321	Gray-iron foundries: Department of Justice: Federal Prison Industries, Inc.....	1	72,107	3	29
3361	Nonferrous foundries: National Advisory Committee for Aeronautics.....	2	90,000	6	
	Total, primary metal industries.....	5	2,474,129	209	29
34 3429	Fabricated metal products (except ordnance, machinery, and transportation equipment): Hardware, not elsewhere classified: Post Office Department: Bureau of Facilities.....	1	212,179	78	
3443	Boiler shop products: Department of the Interior: Bureau of Mines.....	(¹)	(¹)	(¹)	
3463	Treasury Department: U. S. Coast Guard. Stamped and pressed metal products (except automobile stampings): Post Office Department: Bureau of Facilities.....	1	279,093	36	
3468	Electroplating, plating and polishing: Department of Commerce: National Bureau of Standards.....	1	39,832	3	
	Total, fabricated metal products (except ordnance, machinery, and transportation equipment).....	4	1,052,431	150	
35 3543	Machinery (except electrical): Machine-tool accessories, other metalworking-machinery accessories, and machinists' precision tools: Department of Justice: Federal Prison Industries, Inc.....	1	285,754	10	32
	Post Office Department: Bureau of Facilities.....	1	216,421	15	
	Subtotal.....	2	502,175	25	32

¹ Information not available.

*Standard Industrial Classification Manual.

TABLE V.—Commercial activities (excluding nonmanufacturing activities of the Department of Defense), arranged by industrial group and organization unit—Reported under Budget Bulletin No. 55-4—Continued

A. GOVERNMENT OPERATED, CIVILIAN AGENCIES—Continued

SICM* Code	Industry	Number of installations	Capital assets	Number of employees	
				Civilian	Other
35	Machinery—Continued				
3599	Machine shops (jobbing and repair):				
	Department of Commerce: National Bureau of Standards.....	2	\$1,603,836	130	-----
	Department of the Interior: Bonneville Power Administration.....	2	670,388	56	-----
	Department of Justice: Federal Prison Industries, Inc.....	1	4,861	2	18
	Department of State.....	1	66,180	1	-----
	Subtotal.....	6	2,345,265	189	18
	Total, machinery (except electrical).....	8	2,847,440	214	50
36	Electrical machinery, equipment, and supplies:				
3616	Switchgear, switchboard apparatus, and industrial control: Department of the Interior: Bonneville Power Administration.....	1	17,754	67	-----
3661	Communications equipment and related products: Department of Commerce: Civil Aeronautics Administration.....	2	-----	79	-----
	Total, electrical machinery, equipment, and supplies.....	3	17,754	146	-----
37	Transportation equipment:				
3731	Ship building and repairing:				
	Department of the Interior:				
	Fish and Wildlife Service.....	1	50,000	9	-----
	Office of Territories.....	6	73,136	-----	-----
	Subtotal.....	7	123,136	9	-----
	Treasury Department: United States Coast Guard.....	1	11,762,000	1,412	124
	Subtotal.....	8	11,885,136	1,421	124
3732	Boat building and repairing:				
	Department of Justice: Federal Prison Industries, Inc.....	1	59,065	1	47
	Treasury Department: United States Coast Guard.....	(¹)	(¹)	(¹)	(¹)
3742	Railroad and streetcars: Department of the Interior: Bureau of Mines.....	(¹)	4,718,044	-----	-----
	Total, transportation equipment.....	9	16,662,245	1,422	171
38	Professional, scientific, and controlling instruments; photographic and optical goods; watches and clocks:				
3811	Laboratory, scientific, and engineering instruments (except surgical, medical, and dental):				
	Department of Commerce: Coast and Geodetic Survey.....	1	44,019	10	-----
	National Advisory Committee for Aeronautics.....	4	1,498,000	183	-----
	Subtotal.....	5	1,542,019	193	-----
3831	Optical instruments and lenses:				
	Department of Commerce: National Bureau of Standards.....	1	84,054	6	-----
3841	Surgical and medical instruments: Department of Health, Education, and Welfare: Public Health Service, Bureau of Medical Services.....	1	9,779	1	-----
3842	Surgical and orthopedic appliances and supplies; and personal safety devices, not elsewhere classified: Veterans' Administration: Department of Medicine and Surgery.....	21	542,836	221	-----
	Total, professional, scientific, and controlling instruments; photographic and optical goods; watches and clocks.....	28	2,178,688	421	-----

¹ Information not available.

*Standard Industrial Classification Manual.

TABLE V.—Commercial activities (excluding nonmanufacturing activities of the Department of Defense), arranged by industrial group and organization unit—Reported under Budget Bulletin No. 55-4—Continued

A. GOVERNMENT OPERATED, CIVILIAN AGENCIES—Continued

SICM* Code	Industry	Number of instal- lations	Capital assets	Number of employees	
				Civilian	Other
39 3981	Miscellaneous manufacturing industries: Brooms and brushes: Department of Justice: Federal Prison Industries, Inc.....	3	\$519, 273	16	311
40 4013	Railroads: Switching and terminal companies: Department of Health, Education, and Welfare: St. Elizabeths Hospital.....	1	41, 368	2	-----
	Department of the Interior: Bureau of Reclamation.....	1	754, 000	3	-----
	General Services Administration: Federal Supply Service.....	1	74, 200	1	-----
	Public Buildings Service.....	(1)	(894, 000)	(8)	-----
	Total, railroads.....	3	869, 568	6	-----
41 4151	Local and interurban railways and buslines: Local buslines, not operating railways: Department of Health, Education, and Welfare: Social Security Administration, Bureau of Old-Age and Survivors Insur- ance.....	1	6, 911	7	-----
	General Services Administration: Federal Supply Service.....	2	313, 705	2	-----
	National Advisory Committee for Aeronau- tics.....	1	10, 000	3	-----
	Total, local and interurban railways and buslines.....	4	330, 616	12	-----
42 4200	Trucking and warehousing: Trucking and warehousing: Department of the Interior: Office of Territories.....	15	510, 000	32	-----
4212	Local trucking and draying: Department of the Interior: Bureau of In- dian Affairs.....	(1)	1, 707, 277	178	-----
	Post Office Department: Bureau of Facili- ties.....	(1)	39, 362, 000	(1)	-----
	Department of State.....	1	35, 788	17	-----
	Treasury Department: Bureau of Engraving and Printing.....	1	58, 283	21	-----
	Bureau of the Public Debt.....	3	11, 565	2	-----
	Subtotal.....	4	69, 848	23	-----
	General Services Administration: Federal Supply Service.....	5	499, 329	62	-----
	Public Buildings Service.....	1	75, 000	300	-----
	Subtotal.....	(1)	(1)	(1)	-----
	Subtotal.....	6	574, 329	362	-----
	National Advisory Committee for Aeronau- tics.....	3	111, 000	32	-----
	Veterans' Administration: Assistant Administrator for Adminis- tration.....	1	19, 110	10	-----
	Department of Medicine and Surgery..	56	1, 210, 995	275	-----
	Department of Veterans' Benefits.....	1	5, 599	-----	-----
	Subtotal.....	58	1, 235, 704	285	-----
	United States Information Agency: Office of Administration.....	2	27, 225	-----	-----
	Media Services: Press Service.....	1	7, 375	-----	-----
	Broadcasting Service.....	1	16, 250	-----	-----
	Subtotal.....	4	50, 850	-----	-----

¹ Information not available.

*Standard Industrial Classification Manual.

TABLE V.—Commercial activities (excluding nonmanufacturing activities of the Department of Defense), arranged by industrial group and organization unit—Reported under Budget Bulletin No. 55-4—Continued

A. GOVERNMENT OPERATED, CIVILIAN AGENCIES—Continued

SICM* Code	Industry	Number of installations	Capital assets	Number of employees	
				Civilian	Other
42	Trucking and warehousing—Continued				
4212	Local trucking and draying—Continued				
	Department of Health, Education, and Welfare:				
	Public Health Service:				
	Bureau of Medical Services.....	5	\$53,889	7	-----
	National Institutes of Health.....	1	93,600	18	-----
	Social Security Administration, Bureau of Old-Age and Survivors Insurance.....	1	15,811	7	-----
	St. Elizabeths Hospital.....	1	50,665	25	-----
	Subtotal.....	8	213,965	57	-----
	Total, local trucking and draying.....	84	43,360,761	954	-----
4213	Trucking, except local:				
	Department of Health, Education, and Welfare: Public Health Service, Bureau of Medical Services.....	1	8,715	1	-----
	Post Office Department:				
	Bureau of Transportation.....	23	1,001,700	53	-----
	Bureau of Facilities.....	(1)	2,687,000	(1)	-----
	Subtotal.....	23	3,688,700	53	-----
	General Services Administration: Federal Supply Service.....	1	13,000	2	-----
	National Advisory Committee for Aeronautics.....	2	36,000	2	-----
	Subtotal.....	27	3,746,415	58	-----
4221	Farm product warehousing and storage:				
	Department of Agriculture: Commodity Stabilization Service.....	4,531	197,975,000	3,120	-----
	Department of Commerce: Maritime Administration.....	4	(1)	22	-----
	General Services Administration: Emergency Procurement Service.....	10	4,940,097	119	-----
	Subtotal.....	4,545	240,915,097	3,261	-----
4233	Food lockers, with or without food-preparation facilities: Veterans' Administration: Department of Medicine and Surgery.....	1	73,528	3	-----
4251	Special warehousing and storage, not elsewhere classified:				
	Department of Commerce: Bureau of Public Roads.....	(5)	(450,052)	(19)	-----
	General Services Administration:				
	Federal Supply Service.....	4	1,208,045	49	-----
	Emergency Procurement Service.....	2	403,749	20	-----
	Public Buildings Service.....	(6)	(61,388)	(20)	-----
	Subtotal.....	4	-----	70	-----
	Subtotal.....	10	1,611,794	139	-----
4291	General warehousing and storage:				
	Department of Agriculture: Agricultural Research Service.....	1	59,430	1	-----
	Department of Commerce:				
	Civil Aeronautics Administration.....	12	634,656	149	-----
	National Bureau of Standards.....	2	242,146	36	-----
	Weather Bureau.....	6	16,121	11	-----
	Subtotal.....	20	892,923	196	-----
	Department of Health, Education, and Welfare: Public Health Service, Office of Surgeon General.....	1	52,146	16	-----

¹ Information not available.

*Standard Industrial Classification Manual.

TABLE V.—Commercial activities (excluding nonmanufacturing activities of the Department of Defense), arranged by industrial group and organization unit—Reported under Budget Bulletin No. 55-4—Continued

A. GOVERNMENT OPERATED, CIVILIAN AGENCIES—Continued

SIOM* Code	Industry	Number of instal- lations	Capital assets	Number of employees	
				Civilian	Other
42	Trucking and warehousing—Continued				
4291	General warehousing and storage—Continued				
	Department of the Interior:				
	Bureau of Land Management.....	1	\$36,650	-----	-----
	National Park Service.....	13	566,961	42	-----
	Office of Territories.....	4	79,737	-----	-----
	Subtotal.....	18	683,348	42	-----
	General Services Administration:				
	Federal Supply Service.....	26	14,747,801	727	-----
	Public Buildings Service.....	4	1,211,775	79	-----
	(8)	(8)	(1,091,134)	(55)	-----
	Subtotal.....	30	15,959,576	806	-----
	Atomic Energy Commission.....	1	178,000	3	-----
	Subtotal.....	71	17,825,423	1,064	-----
	Total, trucking and warehousing.....	4,753	308,043,018	5,511	-----
43	Highway transportation, not elsewhere classified:				
4311	Buslines, except local: Department of Justice:				
	Bureau of Prisons.....	6	120,000	16	-----
	Immigration and Naturalization Service.....	7	349,510	22	-----
	Subtotal.....	13	469,510	38	-----
4321	School buses: Veterans' Administration: Department of Medicine and Surgery.....	2	21,500	2	-----
4331	Taxis: Department of State.....	1	20,762	9	-----
	General Services Administration: Federal Supply Service.....	1	13,522	11	-----
	Subtotal.....	2	34,284	20	-----
	Total, highway transportation, not elsewhere classified.....	17	525,294	60	-----
44	Water transportation:				
4412	Overseas foreign transportation: Department of Commerce: Maritime Administration.....	(1)	(1)	(1)	-----
4421	Transportation to noncontiguous territories: Department of the Interior:				
	Bureau of Indian Affairs.....	1	1,500,000	44	-----
	Fish and Wildlife Service.....	23	4,000,000	164	-----
	Subtotal.....	24	5,500,000	208	-----
4431	Great Lakes transportation: Department of the Interior: National Park Service.....	1	350,000	2	-----
4441	Transportation on rivers and canals: Department of Commerce: Civil Aeronautics Administration.....	1	-----	-----	-----
	Department of the Interior: Office of Territories.....	14	2,216,025	-----	-----
	Subtotal.....	15	2,216,025	-----	-----
4452	Ferries: Department of the Interior: Bureau of Indian Affairs.....	1	43,974	8	-----
	Department of Justice: Bureau of Prisons.....	2	533,603	14	-----
	National Advisory Committee for Aeronautics.....	1	232,000	5	-----
	Subtotal.....	4	809,577	27	-----
4453	Lighterage: Department of Health, Education, and Welfare: Public Health Service, Bureau of Medical Services.....	5	594,822	36	-----
	Total, water transportation.....	49	9,470,424	273	-----

¹ Information not available.

*Standard Industrial Classification Manual.

TABLE V.—Commercial activities (excluding nonmanufacturing activities of the Department of Defense), arranged by industrial group and organization unit—Reported under Budget Bulletin No. 55-4—Continued

A. GOVERNMENT OPERATED, CIVILIAN AGENCIES—Continued

SIOM* Code	Industry	Number of instal- lations	Capital assets	Number of employees	
				Civilian	Other
45	Transportation by air:				
4513	Uncertified carriers:				
	Department of Defense: Civil functions, Corps of Engineers.....	1	\$233,000	3	-----
	National Advisory Committee for Aero- nautics.....	4	505,000	14	-----
	Subtotal.....	5	738,000	17	-----
4521	Air carriage, except common carriers:				
	Department of Commerce: Civil Aero- nautics Administration.....	3	613,000	4	-----
	Department of the Interior:				
	Bureau of Reclamation.....	4	78,592	5	-----
	Fish and Wildlife Service.....	22	760,000	50	-----
	Subtotal.....	26	838,592	55	-----
	Department of Justice: Immigration and Naturalization Service.....	2	1,165,000	21	-----
	Subtotal.....	31	2,616,592	80	-----
4582	Airports and flying fields: Department of Commerce: Civil Aeronautics Administra- tion.....	118		40	-----
	Total, transportation by air.....	154	3,354,592	137	-----
47	Services incidental to transportation:				
4789	Services incidental to transportation, not else- where classified: Department of Agriculture: Office of Plant and Operations.....	1	15,018	6	-----
48	Telecommunications:				
4811	Telephone communications (wire or radio):				
	Department of Agriculture: Forest Service.....	149	13,757,000	350	-----
	Department of Defense: Civil Functions: Corps of Engineers.....	3	81,000		-----
	Department of Health, Education, and Welfare:				
	Public Health Service—Bureau of Medical Services.....	1	38,795	4	-----
	St. Elizabeths Hospital.....	1	204,826		-----
	Subtotal.....	2	243,621	4	-----
	Department of the Interior:				
	Bureau of Indian Affairs.....	41	2,529,765	51	-----
	Bureau of Reclamation.....	9	685,700	17	-----
	Fish and Wildlife Service.....	22	100,000	2	-----
	National Park Service.....	20	2,863,483	39	-----
	Subtotal.....	92	6,178,948	109	-----
	National Advisory Committee for Aero- nautics.....	3	319,000	11	-----
	Veterans' Administration: Department of Medicine and Surgery.....	4	82,179	11	-----
	Subtotal.....	253	20,661,748	485	-----
4821	Telegraph communication (wire and radio):				
	Department of Agriculture: Agricultural Marketing Service.....	1		25	-----
	Department of Commerce: Civil Aero- nautics Administration.....	8		103	-----
	Subtotal.....	9		128	-----
4899	Communication services, not elsewhere clas- sified:				
	Department of Commerce: Civil Aero- nautics Administration.....	452		100	-----
	Total, telecommunications.....	714	20,661,748	713	-----

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TABLE V.—Commercial activities (excluding nonmanufacturing activities of the Department of Defense), arranged by industrial group and organization unit—Reported under Budget Bulletin No. 55-4—Continued

A. GOVERNMENT OPERATED, CIVILIAN AGENCIES—Continued

SICM* Code	Industry	Number of Instal- lations	Capital assets	Number of employees	
				Civilian	Other
49	Utilities and sanitary services:				
4900	Operations and maintenance of utilities:				
	Department of Commerce: Civil Aero- nautics Administration.....	4	\$54,665	49	-----
4911	Electric light and power:				
	Department of Agriculture: Agricultural Research Service.....	1	59,382	-----	-----
	Department of Defense: Civil Functions— Corps of Engineers.....	2	2,168,000	13	-----
	Department of Health, Education, and Welfare: Public Health Service—Bureau of Medical Services.....	1	-----	5	-----
	Department of the Interior:				
	Bureau of Indian Affairs.....	176	8,665,777	300	-----
	Bureau of Reclamation.....	1	27,000	-----	-----
	Bonneville Power Administration.....	90	(1)	1	-----
	Office of Territories.....	1	2,615,173	-----	-----
	Subtotal.....	268	11,307,950	301	-----
	Department of Justice, Bureau of Prisons.....	4	635,000	(1)	-----
	National Advisory Committee for Aero- nautics.....	1	1,063,000	8	-----
	Tennessee Valley Authority (maintenance of transmission lines).....	1	389,000	110	-----
	Veterans' Administration: Department of Medicine and Surgery.....	1	71,500	15	-----
	Subtotal.....	279	15,693,832	452	-----
4924	Natural gas distribution: Department of the In- terior: Bureau of Indian Affairs.....	2	52,000	-----	-----
4925	Manufactured gas production and distribution: Department of the Interior: Bureau of Indian Affairs.....	3	89,505	-----	-----
4941	Water supply:				
	Department of Agriculture: Agricultural Research Service.....	1	157,200	1	-----
	Department of Health, Education, and Welfare: Public Health Service—Bureau of Medical Services.....	1	-----	2	-----
	Department of Justice: Bureau of Prisons.....	10	1,108,222	5	-----
	Veterans' Administration: Department of Medicine and Surgery.....	14	1,677,833	11	-----
	Subtotal.....	26	2,943,255	19	-----
4952	Sewerage systems:				
	Department of Agriculture: Agricultural Research Service.....	1	200,000	2	-----
	Department of Health, Education, and Welfare: Public Health Service—Bureau of Medical Services.....	2	-----	14	-----
	Department of Justice: Bureau of Prisons.....	15	565,450	2	-----
	General Services Administration: Public Buildings Service.....	1	2,500,000	10	-----
	Veterans' Administration: Department of Medicine and Surgery.....	5	2,175,024	6	-----
	Subtotal.....	24	5,440,474	34	-----
4953	Refuse systems:				
	General Services Administration: Public Buildings Service.....	(1)	(1)	(1)	-----
	Veterans' Administration: Department of Medicine and Surgery.....	28	550,629	48	-----
	Total, utilities and sanitary services.....	366	24,824,360	602	-----
50	Wholesale trade, merchant wholesalers:				
5000	Stores activity—receiving, storing, and issue: General Services Administration: Federal Supply Service.....	4	680,329	87	-----

¹ Information not available.

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TABLE V.—Commercial activities (excluding nonmanufacturing activities of the Department of Defense), arranged by industrial group and organization unit—Reported under Budget Bulletin No. 55-4—Continued

A. GOVERNMENT OPERATED, CIVILIAN AGENCIES—Continued

SICM* Code	Industry	Number of instal- lations	Capital assets	Number of employees	
				Civilian	Other
50 6022 (5042)	Wholesale trade, merchant wholesalers—Continued Drugs, general line: (Groceries, general line) Veterans' Administration: Department of Medicine and Surgery.....	3	\$8, 550, 064	410	-----
51 5121	Total, wholesale trade—merchant wholesalers..... Wholesale trade, other than merchant wholesalers: Petroleum bulk stations: Department of the Interior: Office of Territories.....	7 6	9, 230, 393 2, 000, 000	497 6	----- -----
53 5393	Retail trade, general merchandise: General stores: Department of the Interior: Fish and Wildlife Service.....	1	500, 000	4	-----
54 5452	Retail trade, food: Milk dealers: Department of Justice: Federal Prison Industries, Inc.....	1	132, 753	2	26
55	Automobile dealers and gasoline service stations:				
5541	Gasoline service stations: Department of Commerce: Bureau of Pub- lic Roads..... Department of the Interior: Bureau of Indian Affairs..... Bureau of Reclamation..... Office of Territories..... Total, automobile dealers and gasoline service stations.....	(1) 37 6 (1) 1 44	(1) 94, 856 118, 113 (1) 75, 000 287, 969	(1) 17 12 (1) 1 30	----- ----- ----- ----- ----- -----
58 5812	Retail trade, eating and drinking places: Eating places: Department of Commerce: Civil Aeronau- tics Administration..... Department of Health, Education, and Welfare: Public Health Service, National Institutes of Health..... Department of the Interior: Bureau of In- dian Affairs..... Department of Justice: Bureau of Prisons..... Immigration and Naturalization Service. Subtotal..... Total retail trade, eating and drink- ing places.....	2 1 220 26 3 29 252	147, 000 53, 350 2, 757, 475 4, 790, 874 129, 218 4, 920, 092 7, 877, 917	22 34 674 123 14 137 867	----- ----- ----- ----- ----- ----- ----- -----
61 6152	Credit agencies other than banks: Bond and mortgage companies: Housing and Home Finance Agency: Federal National Mortgage Association. Federal Housing Administration..... Public Housing Administration..... Total, credit agencies other than banks.....	6 1 1 8	(1) (1) (1) (1)	5 34 7 46	----- ----- ----- -----
63 6399	Insurance carriers: Insurance carriers, not elsewhere classified: Treasury Department: Fiscal Service, Bureau of Accounts.....	1	225, 739	1	-----
65 6512	Real estate: Operators of nonresidential buildings: National Capital Housing Authority.....	5	61, 000	1	-----

¹ Information not available.
*Standard Industrial Classification Manual.

TABLE V.—Commercial activities (excluding nonmanufacturing activities of the Department of Defense), arranged by industrial group and organization unit—Reported under Budget Bulletin No. 55-4—Continued

A. GOVERNMENT OPERATED, CIVILIAN AGENCIES—Continued

SICM* Code	Industry	Number of instal- lations	Capital assets	Number of employees	
				Civilian	Other
65 6531	Real estate—Continued				
	Agents, brokers, and managers:				
	Department of Defense: Civil functions, Corps of Engineers.....	27	\$196, 000	235	-----
	Department of the Interior:				
	Bureau of Reclamation.....	8	15, 300	25	-----
	Fish and Wildlife Service.....	6	10, 020, 000	80	-----
	National Park Service.....	11	-----	4	-----
	Bonneville Power Administration.....	1	750	5	-----
	Subtotal.....	26	10, 036, 050	114	-----
	General Services Administration: Public Buildings Service.....	114	(¹)	(¹)	-----
	Housing and Home Finance Agency:				
	Federal Housing Administration.....	122	(¹)	774	-----
	Public Housing Administration.....	7	(¹)	31	-----
Subtotal.....	129	(¹)	805	-----	
	Total, agents, brokers, and managers.....	296	10, 232, 050	1, 154	-----
6541	Title abstract (companies):				
	Department of Agriculture: General Coun- sel.....	17	4, 380	12	-----
	Tennessee Valley Authority.....	1	-----	16	-----
	Subtotal.....	18	4, 380	28	-----
	Total, real estate.....	319	10, 297, 430	1, 183	-----
70 7021	Hotels, roominghouses, camps, and other lodging places:				
	Rooming and boardinghouses:				
	Department of Health, Education, and Welfare: St. Elizabeths Hospital.....	1	348, 497	17	-----
Department of the Interior: Bureau of Reclamation.....	11	334, 118	5	-----	
	Subtotal.....	12	682, 615	22	-----
72 7211	Personal services:				
	Power laundries:				
	Department of Defense: Civil Functions, Soldiers Home.....	1	234, 000	38	-----
	Department of Health, Education, and Welfare:				
	Public Health Service:				
	Bureau of Medical Services.....	15	566, 080	297	-----
	National Institutes of Health.....	1	210, 420	39	-----
	St. Elizabeths Hospital.....	1	865, 072	55	-----
	Subtotal.....	17	1, 641, 572	391	-----
	Department of the Interior: Bureau of Indian Affairs.....	38	2, 740, 728	180	-----
	Department of Justice:				
Bureau of Prisons.....	26	1, 666, 316	34	-----	
Federal Prison Industries, Inc.....	4	461, 156	12	130	
Subtotal.....	30	2, 127, 472	46	130	
Veterans' Administration: Department of Medicine and Surgery.....	142	24, 370, 422	3, 323	-----	
	Subtotal.....	228	31, 114, 194	3, 978	130

¹ Information not available.

*Standard Industrial Classification Manual.

TABLE V.—Commercial activities (excluding nonmanufacturing activities of the Department of Defense), arranged by industrial group and organization unit—Reported under Budget Bulletin No. 55-4—Continued

A. GOVERNMENT OPERATED, CIVILIAN AGENCIES—Continued

SICM* Code	Industry	Number of installations	Capital assets	Number of employees	
				Civilian	Other
70	Personal services—Continued				
7221	Cleaning and dyeing plants, except rug cleaning:				
	Department of Defense: Civil functions, Soldiers Home.....	1	\$121,000	3	-----
	Department of Health, Education, and Welfare: Public Health Service, Bureau of Medical Services.....	1	8,630	4	-----
	Department of the Interior: Bureau of Indian Affairs.....	3	36,678	8	-----
	Subtotal.....	5	166,308	15	-----
7231	Photographic studies, except commercial photography:				
	Department of Health, Education, and Welfare: Public Health Service, Bureau of Medical Services.....	1	35,000	9	-----
	Department of State.....	1	40,763	4	-----
	Subtotal.....	2	75,763	13	-----
7232	Commercial photography:				
	Department of Agriculture: Commodity Stabilization Service.....	2	317,337	203	-----
	Department of Commerce:				
	Bureau of the Census.....	1	27,306	3	-----
	Civil Aeronautics Administration.....	2	35,280	6	-----
	Coast and Geodetic Survey.....	2	141,678	8	-----
	Patent Office.....	1	17,000	3	-----
	Bureau of Public Roads.....	1	41,535	10	-----
	National Bureau of Standards.....	1	79,319	10	-----
	Subtotal.....	8	342,118	40	-----
	Department of Defense: Civil functions, Corps of Engineers.....	22	281,000	49	-----
	Department of Health, Education, and Welfare:				
	Public Health Service:				
	Bureau of Medical Services.....	1	6,491	22	-----
	National Institutes of Health.....	1	73,660	16	-----
	St. Elizabeths Hospital.....	1	16,254	2	-----
	Subtotal.....	3	96,405	40	-----
	Department of the Interior:				
	Bureau of Indian Affairs.....	1	20,000	2	-----
	Bureau of Reclamation.....	5	89,023	11	-----
	Subtotal.....	6	109,023	13	-----
	Department of Justice: Federal Bureau of Investigation.....	11	114,409	40	-----
	United States Information Agency: Press Service.....	1	70,000	17	-----
	Veterans' Administration: Department of Medicine and Surgery.....	58	1,283,901	128	-----
	Subtotal.....	111	2,614,193	530	-----
7241	Barbershops: Department of Justice: Bureau of Prisons.....	26	211,186	6	-----
7251	Shoe-repair shops, shoeshine parlors, and hat-cleaning shops:				
	Department of Health, Education, and Welfare: St. Elizabeths Hospital.....	(1)	(1)	(1)	-----
	Department of Justice: Bureau of Prisons.....	(26)	(46,004)	(1)	-----
7262	Funeral service: Veterans' Administration: Department of Medicine and Surgery.....	1	5,573	5	-----

¹ Information not available.

*Standard Industrial Classification Manual.

TABLE V.—Commercial activities (excluding nonmanufacturing activities of the Department of Defense), arranged by industrial group and organization unit—Reported under Budget Bulletin No. 55-4—Continued

A. GOVERNMENT OPERATED, CIVILIAN AGENCIES—Continued

SICM* Code	Industry	Number of instal- lations	Capital assets	Number of employees	
				Civilian	Other
72 7271	Personal services—Continued Pressing, alteration, and garment repair: De- partment of Justice: Bureau of Prisons.....	26	\$135, 220	20	-----
	Total, personal services.....	399	34, 322, 437	4, 567	130
73 7312	Miscellaneous business services: Outdoor advertising services: Department of Labor: Office of the Secretary General Services Administration: Public Buildings Service.....	1 1	884 8, 209	6 8	----- -----
	Subtotal.....	2	9, 093	14	-----
7321	Consumer credit reporting agencies, mercantile reporting agencies, and adjustment and col- lection agencies: Department of Agriculture: Office of the Sollitor.....	19	26, 350	69	-----
	Housing and Home Finance Agency: Fed- eral Housing Administration.....	57	(1)	144	-----
	Subtotal.....	76	26, 350	213	-----
7331	Duplicating, addressing, mailing, mailing list, and stenographic services: Department of Agriculture: Agricultural Research Service.....	1	13, 225	6	-----
	Forest Service.....	3	75, 700	11	-----
	Commodity Stabilization Service.....	2	11, 536	7	-----
	Office of Plant and Operations.....	1	147, 618	101	-----
	Subtotal.....	7	248, 079	125	-----
	Department of Commerce: Office of the Secretary, Office of Publi- cations.....	1	48, 909	14	-----
	Bureau of the Census.....	1	29, 737	15	-----
	Civil Aeronautics Administration.....	17	26, 292	18	-----
	National Bureau of Standards.....	2	51, 596	10	-----
	Civil Aeronautics Board.....	1	18, 300	8	-----
	Subtotal.....	22	174, 834	65	-----
	Department of Defense: Civil functions, Corps of Engineers.....	41	831, 000	213	-----
	Department of Health, Education, and Welfare: Office of the Secretary, Office of Admin- istration.....	1	145, 294	62	-----
	Public Health Service: Bureau of State Services.....	1	51, 209	8	-----
	National Institutes of Health.....	1	15, 000	9	-----
	Social Security Administration, Bureau of Old-Age and Survivors Insurance.....	1	40, 634	28	-----
	Subtotal.....	4	252, 137	107	-----
	Department of the Interior: Office of the Secretary.....	1	122, 622	63	-----
	Bureau of Mines.....	1	41, 490	22	-----
	Bureau of Reclamation.....	5	45, 249	17	-----
	Bonneville Power Administration.....	(5) 1	(1) 104, 568	(1) 26	----- -----
	Subtotal.....	8	318, 929	128	-----
	Department of Justice: Office of Alien Property.....	1	11, 939	5	-----
	Administrative Division.....	1	15, 565	17	-----
	Federal Bureau of Investigation.....	6	196, 225	62	-----
	Subtotal.....	8	223, 729	84	-----

¹ Information not available.

*Standard Industrial Classification Manual.

TABLE V.—Commercial activities (excluding nonmanufacturing activities of the Department of Defense), arranged by industrial group and organization unit—Reported under Budget Bulletin No. 55-4—Continued

A. GOVERNMENT OPERATED, CIVILIAN AGENCIES—Continued

SICM* Code	Industry	Number of installations	Capital assets	Number of employees	
				Civilian	Other
73 7331	Miscellaneous business services—Continued				
	Duplicating, addressing, mailing, mailing list, and stenographic services—Con.				
	Department of Labor: Office of the Secretary.....	1	\$56,604	71	-----
	Post Office Department:				
	Deputy Postmaster General.....	1	72,600	27	-----
	Bureau of Post Office Operations.....	61	594,300	181	-----
	Subtotal.....	62	666,900	208	-----
	Department of State.....	1	343,772	53	-----
	Treasury Department:				
	Office of the Secretary, Office of Administrative Services.....	1	29,549	17	-----
	Bureau of Customs.....	2	27,409	7	-----
	Internal Revenue Service.....	11	313,500	138	-----
	Fiscal Service, Bureau of the Public Debt.....	2	24,422	8	-----
	United States Savings Bonds Division.....	1	16,021	4	-----
	U. S. Coast Guard.....	2	119,947	15	8
	Federal Facilities Corporation.....	1	26,000	12	-----
	Subtotal.....	20	556,848	201	8
	General Services Administration:				
	Office of the Administrator, Office of Management.....	1	45,288	43	-----
	Staff offices.....	7	59,277	37	-----
	Subtotal.....	8	104,565	80	-----
	Bureau of the Budget.....	1	6,786	5	-----
	General Accounting Office.....	1	137,051	14	-----
	Civil Service Commission.....	11	169,107	92	-----
	Federal Communications Commission.....	1	32,377	25	-----
	Federal Power Commission.....	1	47,220	20	-----
	Interstate Commerce Commission.....	1	42,254	47	-----
National Labor Relations Board.....	1	20,200	13	-----	
Railroad Retirement Board.....	1	50,191	17	-----	
Securities and Exchange Commission.....	1	64,582	13	-----	
Small Business Administration.....	1	14,375	4	-----	
Tennessee Valley Authority.....	3	151,073	48	-----	
United States Information Agency, Press Service.....	1	20,000	24	-----	
Veterans' Administration:					
Assistant Administrator for Administration.....	2	322,497	147	-----	
Department of Medicine and Surgery.....	4	39,810	66	-----	
Subtotal.....	6	362,307	213	-----	
Total, duplicating, addressing, mailing, mailing list and stenographic services.....	212	4,889,920	1,870	-----	
7332	Blueprinting and photostating services:				
	Department of Agriculture:				
	Library.....	1	19,319	8	-----
	Office of Plant and Operations.....	(1)	(1)	(1)	-----
	Department of Commerce:				
	Office of the Secretary, Office of Publications.....	(1)	(22,000)	(4)	-----
	Bureau of the Census.....	2	29,342	6	-----
	Civil Aeronautics Administration.....	(8)	(19,020)	(9)	-----
	Subtotal.....	2	29,342	6	-----
	Department of Defense: Civil Functions—Corps of Engineers.....	(41)	(344,000)	(79)	-----
	Department of Health, Education, and Welfare: Social Security Administration, Bureau of Old-Age and Survivors Insurance.....	{ 3 (1)	{ 73,773 (13,175)	{ 50 (6)	-----

¹ Information not available.
 *Standard Industrial Classification Manual.

TABLE V.—Commercial activities (excluding nonmanufacturing activities of the Department of Defense), arranged by industrial group and organization unit—Reported under Budget Bulletin No. 55-4—Continued

A. GOVERNMENT OPERATED, CIVILIAN AGENCIES—Continued

SICM* Code	Industry	Number of instal- lations	Capital assets	Number of employees	
				Civilian	Other
73 7332	Miscellaneous business services—Continued				
	Blueprinting and photostating services—Con.				
	Department of the Interior:				
	Office of the Secretary.....	(1)	(¹)	(¹)	-----
	Bureau of Land Management.....	1	\$8,105		3
	Bureau of Mines.....	3	44,275		11
	Bureau of Reclamation.....	12	164,890		29
	Bonneville Power Administration.....	(3)	(¹)	(¹)	-----
	Subtotal.....	(1)	(¹)	(¹)	-----
	Subtotal.....	16	217,270	43	-----
	Department of Justice:				
	Administrative Division.....	(1)	(7,700)	(4)	-----
	Federal Bureau of Investigation.....	(6)	(¹)	(¹)	-----
	Post Office Department: Deputy Post- master General.....	(1)	(25,800)	(2)	-----
	State Department.....	(1)	(74,848)	(4)	-----
	Treasury Department:				
	Office of the Secretary, Office of Admin- istrative Services.....	(1)	(¹)	(¹)	-----
	Bureau of Customs.....	(1)	(6,858)	(2)	-----
	Internal Revenue Service.....	(¹)	(¹)	(¹)	-----
	Fiscal Service, Bureau of the Public Debt.....	1	7,889		1
	Federal Facilities Corporation.....	(1)	(6,000)	(¹)	-----
	Subtotal.....	1	7,889	1	-----
	General Services Administration:				
	Office of the Administrator, Office of Management.....	1	45,012	10	-----
	Staff offices.....	(1)	(11,301)	(5)	-----
	National Archives and Records Service.....	(3)	(3,530)	(1)	-----
	Subtotal.....	1	10,800	1	-----
	Subtotal.....	2	55,812	11	-----
	General Accounting Office.....	(1)	(80,125)	(6)	-----
	Civil Service Commission.....	(11)	(30,758)	(7)	-----
	Interstate Commerce Commission.....	(1)	(5,871)	(3)	-----
	National Advisory Committee for Aero- nautics.....	5	216,000	35	-----
	Railroad Retirement Board.....	(1)	(5,715)	(1)	-----
	Securities and Exchange Commission.....	(1)	(6,702)	(1)	-----
	Tennessee Valley Authority.....	2	128,000	32	-----
	Veterans' Administration:				
	Assistant Administrator for Admin- istration.....	(1)	(18,745)	(7)	-----
	Assistant Administrator for Construc- tion.....	1	60,780	11	-----
	Department of Insurance.....	1	33,838	9	-----
	Subtotal.....	2	94,618	20	-----
	Total, blueprinting and photostating services.....	34	842,023	206	-----
7341	Window cleaning:				
	General Services Administration: Public Buildings Service.....	28	-----	15	-----
7342	Disinfecting and exterminating services:				
	General Services Administration: Public Buildings Service.....	(¹)	(¹)	(¹)	-----
7349	Miscellaneous services to dwellings and other buildings:				
	Department of Agriculture:				
	Agricultural Research Service.....	4	11,955	64	-----
	Forest Service.....	1	-----	10	-----
	Subtotal.....	5	11,955	74	-----

¹ Information not available.

*Standard Industrial Classification Manual.

TABLE V.—Commercial activities (excluding nonmanufacturing activities of the Department of Defense), arranged by industrial group and organization unit—Reported under Budget Bulletin No. 55-4—Continued

A. GOVERNMENT OPERATED, CIVILIAN AGENCIES—Continued

SIOM* Code	Industry	Number of installations	Capital assets	Number of employees	
				Civilian	Other
73 7349	Miscellaneous business services—Continued				
	Miscellaneous services to dwellings and other buildings—Continued				
	Department of Commerce:				
	Civil Aeronautics Administration.....	2	\$7,719	43	-----
	National Bureau of Standards.....	2	(1) 17,971	6	-----
	Subtotal.....	2		48	-----
	Department of Defense: Civil functions, Corps of Engineers.....	6	25,690	97	-----
	Department of Health, Education, and Welfare: Bureau of Medical Services.....	5	44,000	45	-----
	Welfare: Bureau of Medical Services.....	15	63,809	500	-----
	Department of the Interior:				
	Bonneville Power Administration.....	(1)	(1)	(1)	-----
	Bureau of Mines.....	2	1,932	26	-----
	Bureau of Reclamation.....	6	20,900	78	-----
	Subtotal.....	8	22,832	104	-----
	Post Office Department.....	8,000	1,500,000	20,700	-----
	Treasury Department:				
	Office of the Secretary, Office of Administrative Services.....	1	8,371	74	-----
	Bureau of Engraving and Printing.....	1	24,746	446	-----
	Subtotal.....	2	33,117	520	-----
	General Services Administration: Public Buildings Service.....	308	8,658,810	6,325	-----
	Smithsonian Institution: National Gallery of Art.....	1	8,000	35	-----
	Subtotal.....	8,350	10,368,213	28,400	-----
7351	News syndicates: United States Information Agency: Press Service.....	1		13	-----
7371	Accounting, auditing and bookkeeping services:				
	Department of Agriculture:				
	Commodity Stabilization Service.....	4		10	-----
	Agricultural Marketing Service.....	5	13,345	22	-----
	Subtotal.....	9	13,345	32	-----
	Department of Commerce: Civil Aeronautics Administration.....	6		15	-----
	Department of Health, Education, and Welfare:				
	Office of the Secretary, Office of Administration.....	54		108	-----
	Public Health Service, National Institutes of Health.....	1	4,790	12	-----
	Subtotal.....	55	4,790	120	-----
	Housing and Home Finance Agency:				
	Office of the Administrator.....	7	(1)	27	-----
	Federal National Mortgage Association.....	6	(1)	10	-----
	Home Loan Bank Board.....	11	(1)	(1)	-----
	Federal Housing Administration.....	1	(1)	10	-----
	Public Housing Administration.....	22	(1)	88	-----
	Subtotal.....	47	(1)	135	-----
	Total, accounting, auditing, and bookkeeping services.....	117	18,135	302	-----
7399	Business services not elsewhere classified:				
	Department of Agriculture:				
	Agricultural Research Service.....	3	17,682	17	-----
	Soil Conservation Service.....	1		7	-----
	Agricultural Marketing Service.....	1	9,534	2	-----
	Office of Information.....	1	29,302	21	-----
	Subtotal.....	6	56,518	47	-----

¹ Information not available.
*Standard Industrial Classification Manual.

TABLE V.—Commercial activities (excluding nonmanufacturing activities of the Department of Defense), arranged by industrial group and organization unit—Reported under Budget Bulletin No. 55-4—Continued

A. GOVERNMENT OPERATED, CIVILIAN AGENCIES—Continued

SICM* Code	Industry	Number of installations	Capital assets	Number of employees	
				Civilian	Other
73 7399	Miscellaneous business services—Continued				
	Business services not elsewhere classified—Con.				
	Department of Commerce:				
	Office of the Secretary, Office of Publications.....	2	\$13,000	25	-----
	Civil Aeronautics Administration.....	1	35,000	9	-----
	Coast and Geodetic Survey.....	1	1,072	14	-----
	Bureau of Public Roads.....	1	4,683	7	-----
	National Bureau of Standards.....	7	839,690	96	-----
		2	(1)	(1)	-----
	Subtotal.....	14	894,075	151	-----
	Department of Health, Education, and Welfare: Public Health Service, National Institutes of Health.....	2	20,776	22	-----
	Department of the Interior:				
	Bureau of Mines.....	6	669,287	160	-----
	Bureau of Reclamation.....	36	409,400	94	-----
	Bonneville Power Administration.....	1	180,962	32	-----
	Subtotal.....	43	1,259,649	286	-----
	Department of Justice: Immigration and Naturalization Service.....	7	49,650	14	-----
	Post Office Department: Deputy Postmaster General.....	(1)	-----	(4)	-----
	Treasury Department: Fiscal Service, Bureau of the Public Debt.....	5	44,230	55	-----
	General Services Administration:				
	Federal Supply Service.....	19	335,845	169	-----
		(1)	1,527	9	-----
	Emergency Procurement Service.....	1	104,157	10	-----
	Public Buildings Service.....	6	7,300	73	-----
	National Archives and Records Service.....	2	84,000	15	-----
		28	532,829	276	-----
	Atomic Energy Commission.....	2	2,330,000	136	-----
Federal Communications Commission.....	1	-----	7	-----	
Tennessee Valley Authority.....	1	13,450	269	-----	
Veterans' Administration:					
Assistant Administrator for Construction.....	1	13,700	12	-----	
Department of Medicine and Surgery.....	2	176,057	28	-----	
Subtotal.....	3	189,757	40	-----	
Total, business services not elsewhere classified.....	112	5,390,934	1,303	-----	
Total, miscellaneous business services.....	8,932	21,544,668	32,336	-----	
75 7522	Automobile repair services and garages:				
	Storage garages:				
	Department of Commerce: Bureau of Public Roads.....	(1)	(13,560)	(1)	-----
		(1)	(1)	(1)	-----
	Department of Defense: Civil functions, Corps of Engineers.....	15	305,000	20	-----
	Department of the Interior: Bureau of Reclamation.....	14	284,426	-----	-----
	General Services Administration: Federal Supply Service.....	1	307,000	1	-----
	Veterans' Administration: Department of Medicine and Surgery.....	1	15,100	-----	-----
Subtotal.....	31	911,526	21	-----	

* Information not available.

*Standard Industrial Classification Manual.

TABLE V.—Commercial activities (excluding nonmanufacturing activities of the Department of Defense), arranged by industrial group and organization unit—Reported under Budget Bulletin No. 55-4—Continued

A. GOVERNMENT OPERATED, CIVILIAN AGENCIES—Continued

SICM* Code	Industry	Number of instal- lations	Capital assets	Number of employees		
				Civilian	Other	
75 7538	Automobile repair, etc.—Continued					
	General automobile repair shops:					
	Department of Agriculture:					
	Agricultural Research Service.....	1	\$37, 448	9	-----	
	Forest Service.....	24	1, 165, 425	188	-----	
	Soil Conservation Service.....	5	174, 343	46	-----	
	Subtotal.....	30	1, 377, 216	241	-----	
	Department of Commerce:					
	Civil Aeronautics Administration.....	5	184, 425	40	-----	
	Bureau of Public Roads.....	8	943, 830	111	-----	
	National Bureau of Standards.....	2	87, 075	15	-----	
	Subtotal.....	15	1, 215, 330	166	-----	
	Department of Defense: Civil Functions—					
	Corps of Engineers.....	16	561, 000	124	-----	
	Department of Health, Education, and					
	Welfare:					
	Public Health Service, National Insti- tutes of Health.....	1	13, 500	7	-----	
	St. Elizabeths Hospital.....	1	21, 371	7	-----	
	Subtotal.....	2	34, 871	14	-----	
	Department of the Interior:					
	Bureau of Indian Affairs.....	75	1, 109, 273	161	-----	
	Bureau of Mines.....	3	55, 714	20	-----	
	Bureau of Reclamation.....	12	637, 329	39	-----	
	Bonneville Power Administration.....	7	(¹)	(¹)	-----	
	Office of Territories.....	13	1, 675, 000	112	-----	
	Subtotal.....	110	3, 477, 316	332	-----	
	Department of Justice:					
	Bureau of Prisons.....	26	1, 162, 782	34	-----	
	Immigration and Naturalization Ser- vice.....	16	211, 964	44	-----	
	Subtotal.....	42	1, 374, 746	78	-----	
7538	General automobile repair shops (cont'd.):					
	Post Office Department: Bureau of Facili- ties.....	166	1, 551, 000	2, 736	-----	
	Department of State: International Bound- ary and Water Commission.....	2	44, 900	23	-----	
	General Services Administration: Federal Supply Service.....	1	190, 996	78	-----	
	National Advisory Committee for Aero- nautics.....	5	153, 000	15	-----	
	Veterans' Administration: Department of Medicine and Surgery.....	48	1, 255, 308	130	-----	
	Tennessee Valley Authority.....	6	1, 039, 309	134	-----	
	Total, general automobile repair shops.....	443	12, 274, 992	4, 071	-----	
	7541	Automobile services except repair:				
		Department of Defense: Civil functions, Corps of Engineers.....	7	69, 000	11	-----
Department of the Interior: Bureau of Re- clamation.....		(1)	(¹)	(¹)	-----	
General Services Administration: Federal Supply Service.....		2	128, 861	15	-----	
Veterans' Administration: Department of Medicine and Surgery.....		15	258, 977	36	-----	
Subtotal.....		24	456, 838	62	-----	
Total, automobile repair services and garages.....		498	13, 643, 356	4, 154	-----	

¹ Information not available.

*Standard Industrial Classification Manual.

TABLE V.—Commercial activities (excluding nonmanufacturing activities of the Department of Defense), arranged by industrial group and organization unit—Reported under Budget Bulletin No. 55-4—Continued

A. GOVERNMENT OPERATED, CIVILIAN AGENCIES—Continued

SICM* Code	Industry	Number of instal- lations	Capital assets	Number of employees	
				Civilian	Other
76	Miscellaneous repair services:				
7611	Blacksmith shops: Department of the Interior: Bonneville Power Administration.....	(1)	(1)	(1)	-----
7621	Electrical repair shops:				
	Department of Commerce:				
	Civil Aeronautics Administration.....	7	\$228,667	58	-----
	Weather Bureau.....	1	32,631	12	-----
	Subtotal.....	8	261,298	70	-----
	Department of Justice:				
	Federal Bureau of Investigation.....	6	300	5	-----
	Bureau of Prisons.....	26	398,476	36	-----
	Subtotal.....	32	398,776	41	-----
	Treasury Department: U. S. Coast Guard.....	1	187,160	7	5
	Subtotal.....	41	847,234	118	5
7641	Upholstery and furniture repair:				
	Department of Health, Education, and Welfare: Bureau of Medical Services.....	1	34,450	39	-----
	Department of Justice: Federal Prison In- dustries, Inc.....	3	29,026	4	61
	General Services Administration:				
	Federal Supply Service.....	2	51,715	90	-----
	Public Buildings Service.....	1	15,600	3	-----
	Subtotal.....	3	67,315	93	-----
	Veterans' Administration: Assistant Ad- ministrator for Administration.....	1	4,144	7	-----
	Subtotal.....	8	134,935	143	61
7695	Locksmith and gunsmith shops:				
	Post Office Department: Bureau of Facili- ties.....	1	11,301	8	-----
	Treasury Department: United States Coast Guard.....	1	11,982		6
	Subtotal.....	2	23,283	8	6
7699	Repair shops, not elsewhere classified:				
	Department of Agriculture:				
	Agricultural Research Service.....	3	134,882	25	-----
	Forest Service.....	2	15,500	12	-----
	Soil Conservation Service.....	2	36,743	5	-----
	Subtotal.....	7	187,125	42	-----
	Department of Commerce:				
	Office of Administrative Operations.....	1		9	-----
	Civil Aeronautics Administration.....	14	586,309	190	-----
	Weather Bureau.....	4	16,814	16	-----
	Coast and Geodetic Survey.....	3	44,614	6	-----
	Subtotal.....	22	647,737	221	-----
	Department of Defense: Civil Functions-- Corps of Engineers.....	29	7,311,000	992	-----
	Department of Health, Education, and Welfare:				
	Public Health Service, National Insti- tutes of Health.....	1	322,250	103	-----
	St. Elizabeths Hospital.....	3	97,147	35	-----
	Subtotal.....	4	419,397	138	-----

¹ Information not available.

*Standard Industrial Classification Manual.

TABLE V.—Commercial activities (excluding nonmanufacturing activities of the Department of Defense), arranged by industrial group and organization unit—Reported under Budget Bulletin No. 55-4—Continued

A. GOVERNMENT OPERATED, CIVILIAN AGENCIES—Continued

SICM* Code	Industry	Number of installations	Capital assets	Number of employees	
				Civilian	Other
76 7699	Miscellaneous repair services—Continued				
	Repair shops, not elsewhere classified—Con.				
	Department of the Interior:				
	Bonneville Power Administration.....	(1)	(1)	(1)	-----
	Bureau of Mines.....	18	\$546,910	104	-----
	Fish and Wildlife Service.....	2	315,000	12	-----
	Subtotal.....	20	861,910	116	-----
	Department of Justice: Federal Bureau of Investigation.....	2	5,076	6	-----
	Post Office Department:				
	Bureau of Post Office Operations.....	6	50,000	240	-----
	Bureau of Facilities.....	22	6,600	22	-----
	Subtotal.....	28	56,600	262	-----
	Treasury Department:				
	Fiscal Service—Bureau of the Public Debt.....	1	10,000	6	-----
	U. S. Coast Guard.....	34	6,846,000	973	872
	Subtotal.....	35	6,856,000	979	872
	General Services Administration:				
	Federal Supply Service.....	3	24,238	68	-----
	Public Buildings Service.....	3	6,715	12	-----
	Subtotal.....	6	30,953	80	-----
	National Advisory Committee for Aeronautics.....	4	459,000	192	-----
	Veterans' Administration:				
	Assistant Administrator for Administration.....	1	2,157	8	-----
Department of Medicine and Surgery.....	7	323,527	90	-----	
Subtotal.....	8	325,684	98	-----	
Total, repair shops, not elsewhere classified.....	165	17,160,482	3,126	872	
Total, miscellaneous repair services.....	216	18,165,934	3,395	944	
77 7712	Radio broadcasting (including facsimile broadcasting) and television:				
	Radio broadcasting (including facsimile broadcasting):				
	Department of Commerce: National Bureau of Standards.....	2	529,500	7	-----
	United States Information Agency: Broadcasting Service.....	12	15,998,399	136	-----
Total, radio broadcasting (including facsimile broadcasting) and television.....	14	16,527,899	143	-----	
78 7811	Motion pictures:				
	Motion picture production:				
	Department of Agriculture:				
	Forest Service.....	1	5,000	1	-----
	Office of Information.....	1	353,712	25	-----
	Subtotal.....	2	358,712	26	-----
	Department of Commerce: Bureau of Public Roads.....	1	24,327	5	-----
Department of Health, Education, and Welfare: Public Health Service—Bureau of State Services.....	1	120,000	25	-----	
Subtotal.....	4	503,039	56	-----	

¹ Information not available.

*Standard Industrial Classification Manual.

TABLE V.—Commercial activities (excluding nonmanufacturing activities of the Department of Defense), arranged by industrial group and organization unit—Reported under Budget Bulletin No. 55-4—Continued

A. GOVERNMENT OPERATED, CIVILIAN AGENCIES—Continued

SICM* Code	Industry	Number of instal- lations	Capital assets	Number of employees	
				Civilian	Other
78	Motion pictures—Continued				
7821	Motion picture service industries:				
	Department of Agriculture: Office of In- formation.....	(1)	(1)	(23)	-----
	General Services Administration: National Archives and Records Service.....	1	-----	1	-----
	National Advisory Committee for Aero- nautics.....	4	\$138,000	10	-----
	Subtotal.....	5	138,000	11	-----
	Total, motion pictures.....	9	641,039	67	-----
79	Amusement and recreation services, except motion pictures:				
7942	Golf courses: Department of Health, Educa- tion, and Welfare: Public Health Service— Bureau of Medical Services.....	1	5,313	2	-----
80	Medical and other health services:				
8061	Hospitals: Department of Justice: Bureau of Prisons.....	26	3,622,700	187	-----
8072	Dental laboratories:				
	Department of Health, Education, and Welfare: Public Health Service—Bureau of Medical Services.....	1	4,098	6	-----
	Department of Justice: Federal Prison In- dustries, Inc.....	1	17,635	4	15
	Veterans' Administration: Department of Medicine and Surgery.....	24	362,629	191	-----
	Subtotal.....	26	384,362	201	15
	Total, medical and other health services.....	52	4,007,062	388	15
81	Legal services:				
8111	Legal services: Department of Agriculture: Office of the Solicitor.....	1	2,250	6	-----
82	Educational services:				
8211	Elementary and secondary schools, except denominational and sectarian schools: De- partment of Justice: Bureau of Prisons.....	26	1,970,232	102	-----
8242	Vocational schools: Department of Justice: Federal Prison Industries, Inc.....	22	261,497	70	-----
	Total, educational services.....	48	2,231,729	172	-----
89	Miscellaneous services:				
8911	Engineering and architectural services:				
	Department of Agriculture:				
	Agricultural Research Service.....	1	2,741	4	-----
	Forest Service.....	65	250,000	350	-----
	Subtotal.....	66	252,741	354	-----
	Department of Commerce:				
	Bureau of the Census.....	1	96,366	29	-----
	Coast and Geodetic Survey.....	8	202,624	39	-----
	National Bureau of Standards.....	11	946,917	47	-----
	Subtotal.....	11	(1)	(1)	-----
	Department of Defense: Civil functions, Corps of Engineers.....	31	1,245,907	115	-----
	Department of the Interior:				
	Bureau of Land Management.....	11	-----	18	-----
	Bureau of Reclamation.....	77	2,294,141	1,567	-----
	Fish and Wildlife Service.....	2	10,000	6	-----
	National Park Service.....	2	-----	46	-----
	Bonneville Power Administration.....	(1)	5,000	4	-----
	Subtotal.....	1	2,625	7	-----
	Subtotal.....	93	2,311,766	1,648	-----

¹ Information not available.

*Standard Industrial Classification Manual.

TABLE V.—Commercial activities (excluding nonmanufacturing activities of the Department of Defense), arranged by industrial group and organization unit—Reported under Budget Bulletin No. 55-4—Continued

A. GOVERNMENT OPERATED, CIVILIAN AGENCIES—Continued

SICM* Code	Industry	Number of installations	Capital assets	Number of employees	
				Civilian	Other
89	Miscellaneous services—Continued				
8911	Engineering and architectural services—Con. Treasury Department: Bureau of Engraving and Printing.....	1	\$578,366	17	-----
	General Services Administration: Public Buildings Service.....	421	32,325	52	-----
	National Advisory Committee for Aeronautics.....	3	395,000	189	-----
	Tennessee Valley Authority.....	2	16,680	447	-----
	United States Information Agency: Broadcasting Service.....	1	-----	14	-----
	Veterans' Administration: Assistant Administrator for Construction.....	2	12,200	215	-----
	Subtotal.....	664	13,225,985	7,662	-----
8921	Nonprofit educational and scientific research agencies: Tennessee Valley Authority.....	1	268,327	181	-----
8999	Services not elsewhere classified:				
	Department of Agriculture: Office of Information.....	1	26,034	42	-----
	Department of Justice: Federal Bureau of Investigation.....	1	23,853	25	-----
	Department of State.....	1	35,852	13	-----
	Subtotal.....	3	85,739	80	-----
	Total, miscellaneous services.....	668	13,580,051	7,923	-----
	Grand total, Government-operated civilian agencies.....	18,964	760,655,575	92,320	4,524

B. GOVERNMENT-OWNED, CONTRACTOR-OPERATED, CIVILIAN AGENCIES

14	Mining and quarrying of nonmetallic minerals, except fuels:				
1493	Mica: General Services Administration: Emergency Procurement Service.....	3	\$28,910	21	-----
16	Construction other than building construction, general contractors:				
1621	Heavy construction, except highway and street construction: Department of Defense: Civil functions: Corps of Engineers.....	1	1,020,000	18	-----
19	Ordnance and accessories:				
1911	Guns, howitzers, mortars, and related equipment: Atomic Energy Commission.....	9	594,709,000	17,378	-----
27	Printing, publishing, and allied industries:				
2751	Commercial printing: Atomic Energy Commission.....	16	1,064,000	291	-----
28	Chemicals and allied products:				
2819	Industrial inorganic chemicals, not elsewhere classified: Atomic Energy Commission.....	13	2,746,023,000	26,882	-----
32	Stone, clay, and glass products:				
3271	Concrete products: Department of Defense: Civil functions, Corps of Engineers.....	7	1,177,000	327	-----
3294	Natural graphite, ground, refined, or blended: General Services Administration: Public Buildings Service.....	1	860,000	25	-----
	Total, stone, clay, and glass products.....	8	2,037,000	352	-----
33	Primary metal industries:				
3339	Primary smelting and refining of nonferrous metals and alloys: Treasury Department: Federal Facilities Corporation.....	1	13,184,000	600	-----
42	Trucking and warehousing:				
4251	Special warehousing and storage, not elsewhere classified: General Services Administration: Emergency Procurement Service.....	3	489,844	3	-----

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TABLE V.—Commercial activities (excluding nonmanufacturing activities of the Department of Defense), arranged by industrial group and organization unit—Reported under Budget Bulletin No. 55-4—Continued

B. GOVERNMENT-OWNED, CONTRACTOR-OPERATED, CIVILIAN AGENCIES—Con.

SICM* Code	Industry	Number of instal- lations	Capital assets	Number of employees	
				Civilian	Other
42 4291	Trucking and warehousing—Continued General warehousing and storage: Atomic Energy Commission.....	66	\$13,591,000	1,213	-----
	Total, trucking and warehousing.....	69	14,080,844	1,216	-----
45 4521	Transportation by air: Air carriers, except common carriers: Depart- ment of Defense: Civil functions, Corps of Engineers.....	3	188,000	5	-----
48 4811	Telecommunications: Telephone communication (wire or radio): Atomic Energy Commission.....	3	5,350,000	93	-----
49	Utilities and sanitary services:				
4911	Electric light and power: Atomic Energy Com- mission.....	18	94,033,000	513	-----
4922	Natural-gas transmission: Atomic Energy Commission.....	1	5,752,000	7	-----
4941	Water supply: Atomic Energy Commission.....	7	27,448,000	104	-----
4952	Sewerage systems: Atomic Energy Commis- sion.....	6	12,823,000	39	-----
4961	Steam heating system: Atomic Energy Com- mission.....	6	8,261,000	107	-----
	Total, utilities and sanitary services.....	38	148,317,000	770	-----
58	Retail trade, eating and drinking places:				
5812	Eating places: Atomic Energy Commission.....	5	1,044,000	71	-----
	Tennessee Valley Authority.....	1	148,904		-----
		6	1,192,904	71	-----
65	Real estate:				
6514	Operators of dwellings other than apart- ment buildings: Atomic Energy Commission.....	2	165,000		-----
72	Personal services:				
7211	Power laundries: Atomic Energy Commission.....	13	2,061,000	243	-----
73	Miscellaneous business services:				
7349	Miscellaneous services to dwellings and other buildings: General Services Administration: Public Buildings Service.....	1		19	-----
	Atomic Energy Commission.....	46	11,152,000	2,640	-----
	Subtotal.....	47	11,152,000	2,659	-----
7399	Business services, not elsewhere classified: Atomic Energy Commission.....	18	448,254,000	14,977	-----
	Total, miscellaneous business services.....	65	459,406,000	17,636	-----
75	Automobile repair services and garages:				
7533	Radiator repair shop: Atomic Energy Com- mission.....	1	148,000	14	-----
7538	General automobile repair shop: Atomic Energy Commission.....	22	10,934,000	899	-----
	Total, automobile repair services and garages.....	23	11,082,000	913	-----
76	Miscellaneous repair services:				
7699	Repair shops, not elsewhere classified: Atomic Energy Commission.....	27	26,286,000	2,918	-----
80	Medical and other health services:				
8071	Medical laboratories: Atomic Energy Commis- sion.....	1	2,351,000	260	-----
	Grand total, Government-owned, contrac- tor-operated, civilian agencies.....	301	4,028,545,658	69,067	-----
	Grand total, civilian agencies.....	19,265	4,789,201,233	161,987	4,524

*Standard Industrial Classification Manual.

TABLE V.—Commercial activities (excluding nonmanufacturing activities of the Department of Defense), arranged by industrial group and organization unit—Reported under Budget Bulletin No. 55-4—Continued

O. GOVERNMENT-OPERATED MANUFACTURING ACTIVITIES,
DEPARTMENT OF DEFENSE

SICM* Code	Industry	Number of instal- lations	Capital assets	Number of employees	
				Civilian	Other
19 1911	Ordnance and accessories: Guns, howitzers, mortars, and related equip- ment:				
	Department of the Navy.....	3	\$197,270,168	9,724	65
	Department of the Navy.....	4 (2)	74,767,099 (1)	4,730 (1)	79 (1)
	Subtotal.....	7	272,037,267	14,454	144
1921	Artillery ammunition:				
	Department of the Army.....	2	23,238,025	1,060	2
	Department of the Navy.....	2	52,216,984	3,063	25
	Subtotal.....	4	75,455,009	4,123	27
1922	Ammunition loading and assembling:				
	Department of the Army.....	5	95,767,305	5,995	15
	Department of the Navy.....	6	44,439,289	4,177	9
	Subtotal.....	11	140,206,594	10,172	24
1929	Ammunition, not elsewhere classified:				
	Department of the Army.....	3	57,569,726	3,693	-----
	Department of the Navy.....	3 (2)	9,302,459 (1)	1,718 (1)	5 -----
	Subtotal.....	6	66,872,185	5,411	5
1931	Tanks and tank components: Department of the Army.....	1	8,230,752	1,444	-----
1941	Sighting and fire-control equipment:				
	Department of the Army.....	1	8,250,009	408	-----
	Department of the Navy.....	2	21,017,575	3,043	10
	Subtotal.....	3	29,267,584	3,451	10
1951	Small arms: Department of the Army.....	1 (1)	26,098,995 (1)	5,031 (1)	-----
1961	Small arms ammunition: Department of the Army.....	1	25,739,760	498	-----
1999	Ordnance and accessories, not elsewhere clas- sified: Department of the Navy.....	1	13,887,700	1,103	-----
	Total, ordnance and accessories.....	35	657,795,846	45,687	210
20 2024	Food and kindred products:				
	Ice cream and ices:				
	Department of the Army.....	1	45,978	8	-----
	Department of the Navy.....	3 (1)	113,700 (1)	3 (1)	-----
	Subtotal.....	5	159,678	11	-----
2051	Bread and other bakery products (except biscuits, crackers, and pretzels):				
	Department of the Army.....	31 4	(1) 537,387	(1) 16	----- 34
	Department of the Navy.....	15	(1) 176,000	(1) 8	-----
	Department of the Air Force.....	4 3	(1) 423,747	(1) 27	----- 35
	Subtotal.....	68	1,137,134	51	69
2097	Manufactured ice:				
	Department of the Army.....	1 5	231,808 (1)	6 (1)	-----
	Department of the Navy.....	10	14,400	1	-----
	Department of the Air Force.....	1	58,200	-----	2
	Subtotal.....	17	304,408	7	2

¹ Information not available.

*Standard Industrial Classification Manual.

TABLE V.—Commercial activities (excluding nonmanufacturing activities of the Department of Defense), arranged by industrial group and organization unit—Reported under Budget Bulletin No. 55-4—Continued

C. GOVERNMENT-OPERATED MANUFACTURING ACTIVITIES,
DEPARTMENT OF DEFENSE—Continued

SICM* Code	Industry	Number of instal- lations	Capital assets	Number of employees	
				Civilian	Other
20	Food, etc.—Continued				
2099	Food preparation, not elsewhere classified:				
	Department of the Army.....	2	(1)	(1)	(1)
	Department of the Navy.....	2	(1)	(1)	(1)
	Subtotal.....	4			
	Total, food and kindred products.....	84	\$1, 601, 220	69	71
22	Textile mill products:				
2298	Cordage and twine: Department of the Navy..	1	(1)	(1)	
23	Apparel and other finished products made from fabrics and similar materials:				
2329	Men's, youths', and boys' work, sport, and other clothing not elsewhere classified:				
	Department of the Army.....	1	(1)	(1)	(1)
	Department of the Navy.....	1	(1)	(1)	
	Subtotal.....	2			
2393	Textile bags:				
	Department of the Army.....	1	200, 000	150	
	Department of the Navy.....	1	50, 000	5	
	Subtotal.....	2	250, 000	155	
2394	Canvas products:				
	Department of the Army.....	2	448, 274	296	
	Department of the Navy.....	1	224, 100	45	
	Subtotal.....	(6)	(1)	(1)	
	Subtotal.....	3	672, 374	341	
2399	Fabricated textile products, not elsewhere classified:				
	Department of the Army.....	(1)	(1)	(1)	(1)
	Department of the Navy.....	1	265, 758	50	
	Subtotal.....	(1)	(1)	(1)	(1)
	Subtotal.....	1	265, 758	50	
	Total, apparel and other finished products made from similar materials.....	8	1, 188, 132	546	
24	Lumber and wood products (except furniture):				
2444	Wooden boxes (except cigarboxes):				
	Department of the Army.....	41	4, 320, 555	2, 021	21
	Department of the Navy.....	15	1, 734, 728	255	
	Department of the Air Force.....	18	1, 420, 753	889	
	Subtotal.....	74	7, 476, 036	3, 165	21
2491	Wood preserving: Department of the Navy.....	3	(1)	(1)	(1)
2499	Wood products, not elsewhere classified: De- partment of the Navy.....	1	362, 835	18	
	Total, lumber and wood products (except furniture).....	78	7, 838, 871	3, 183	21
26	Paper and allied products:				
2671	Paperboard boxes, folded, set up, and corru- gated:				
	Department of the Army.....	22	889, 236	66	
	Department of the Navy.....	6	320, 341	28	
	Total, paper and allied products.....	28	1, 209, 577	94	
28	Chemicals and allied products:				
2811	Sulfuric acid: Department of the Navy.....	(1)	(1)	(1)	
2812	Alkalies and chlorine: Department of the Army..	2	(1)	(1)	
2826	Explosives:				
	Department of the Army.....	1	4, 390, 457	164	
	Department of the Navy.....	(1)	(1)	(1)	

¹ Information not available.

*Standard Industrial Classification Manual.

TABLE V.—Commercial activities (excluding nonmanufacturing activities of the Department of Defense), arranged by industrial group and organization unit—Reported under Budget Bulletin No. 55-4—Continued

C. GOVERNMENT-OPERATED MANUFACTURING ACTIVITIES,
DEPARTMENT OF DEFENSE—Continued

SICM* Code	Industry	Number of installations	Capital assets	Number of employees	
				Civilian	Other
28	Chemicals, etc.—Continued				
2851	Paints, varnishes, lacquers, japons, and enamels: Department of the Navy.....	2 (1)	(1) (1)	(1) (1)	----- -----
2896	Compressed and liquefied gases:				
	Department of the Army.....	1	(1)	(1)	-----
	Department of the Navy.....	7	(1)	(1)	-----
	Department of the Air Force.....	1	\$35,729	(1)	5
		2	(1)	(1)	-----
		1	252,200		18
	Subtotal.....	12	287,929		23
	Total, chemicals and allied products.....	17	4,678,386		187
30	Rubber products:				
3099	Rubber industries, not elsewhere classified:				
	Department of the Army.....	1	7,921		1
	Department of the Navy.....	3	225,516		15
	Total rubber products.....	4	233,437		16
31	Leather and leather products:				
3199	Leather goods, not elsewhere classified: Department of the Army.....	1	150,000		185
33	Primary metal industries:				
3320	Iron and steel foundries:				
	Department of the Army.....	(1)	(1)	(1)	(1)
	Department of the Navy.....	(10)	(1)	(1)	(1)
3322	Malleable-iron foundries: Department of the Navy.....	1	3,319,300		131
3341	Secondary smelting and refining of nonferrous metals and alloys:				
	Department of the Navy.....	4	(1)	(1)	(1)
	Department of the Air Force.....	5	(1)	(1)	(1)
	Subtotal.....	9			
3361	Nonferrous foundries:				
	Department of the Army.....	1	269,880		7
	Department of the Navy.....	3	2,795,489		81
		(2)	(1)	(1)	
	Subtotal.....	4	3,065,369		88
3391	Iron and steel forgings:				
	Department of the Army.....	(1)	(1)	(1)	(1)
	Department of the Navy.....	2	4,341,400	(1)	79
		(1)	(1)	(1)	(1)
	Subtotal.....	2	4,341,400		79
	Total, primary metal industries.....	16	10,726,069		298
34	Fabricated metal products (except ordnance, machinery, and transportation equipment):				
3443	Boilershop products: Department of the Navy.....	(11)	(1)	(1)	(1)
3444	Sheet-metal work:				
	Department of the Army.....	(1)	(1)	(1)	(1)
	Department of the Navy.....	1	583,495	(1)	3
		(1)	(1)	(1)	(1)
3495	Screw-machine products:				
	Department of the Army.....	(1)	(1)	(1)	(1)
	Department of the Navy.....	(1)	(1)	(1)	(1)
3463	Stamped and pressed metal products (except automobile stampings):				
	Department of the Army.....	(1)	(1)	(1)	(1)
	Department of the Navy.....	1	62,880		10
3464	Powder metallurgy: Department of the Navy.....	1	41,667		4
3465	Enameling, japanning, and lacquering: Department of the Army.....	1	201,000		33

¹ Information not available.

*Standard Industrial Classification Manual.

TABLE V.—Commercial activities (excluding nonmanufacturing activities of the Department of Defense), arranged by industrial group and organization unit—Reported under Budget Bulletin No. 55-4—Continued

C. GOVERNMENT-OPERATED MANUFACTURING ACTIVITIES,
DEPARTMENT OF DEFENSE—Continued

SICM* Code	Industry	Number of instal- lations	Capital assets	Number of employees	
				Civilian	Other
34 3466	Fabricated metal products, etc.—Continued Galvanizing and other hot-dip coating: Depart- ment of the Navy	(1)	(1)	(1)	-----
3468	Electroplating, plating, and polishing:				
	Department of the Army-----	{ (1) 2	\$1,124,599 (1)	53 (1)	-----
	Department of the Navy-----	{ (1) 5	7,354,407 (1)	296 (1)	-----
		7	8,479,006	349	-----
3471	Lighting fixtures: Department of the Navy-----	1	1,552,549	173	-----
3489	Wirework, not elsewhere classified: Department of the Army-----	(1)	(1)	(1)	-----
3492	Steel springs: Department of the Navy-----	1	1,534,300	11	-----
3495	Screw-machine products:				
	Department of the Army-----	{ (1) 1	95,495 (1)	7 (1)	-----
	Department of the Navy-----	{ (2) 4	3,019,875 (1)	115 (1)	-----
	Subtotal-----	5	3,115,370	122	-----
3499	Fabricated metal products, not elsewhere classi- fied:				
	Department of the Army-----	2	2,797,839	275	1
	Total, fabricated metal products (except ordnance, machinery, and transportation equipment)-----	20	18,368,106	980	1
35 3543	Machinery (except electrical): Machine-tool accessories, other metalworking- machinery accessories, and machinists' pre- cision tools:				
	Department of the Army-----	{ (1) 1	826,336 (1)	131 (1)	-----
	Department of the Navy-----	{ (16) 4	4,580,073 (1)	170 (1)	1 (1)
	Subtotal-----	5	5,406,409	301	1
3599	Machine shops jobbing and repair:				
	Department of the Army-----	(33)	(1)	(1)	(1)
	Department of the Navy-----	5	1,988,968	149	-----
	Total, machinery (except electrical)-----	10	7,395,377	450	1
37 3729	Transportation equipment: Aircraft parts and auxiliary equipment, not elsewhere classified: Department of the Navy	1	206,030	55	-----
3731	Ship building and repairing: Department of the Navy-----	{ (1) 14	1,511,903,154 (1)	113,707 (1)	3,188 (1)
3732	Boat building and repairing: Department of the Navy-----	(1)	(1)	(1)	(1)
	Total, transportation equipment-----	15	1,512,109,184	113,762	3,188
38	Professional, scientific, and controlling instruments; photographic and optical goods; watches and clocks:				
3831	Optical instruments and lenses: Department of the Navy-----	(4)	(1)	(1)	(1)
3842	Surgical and orthopedic appliances and sup- plies; and personal safety devices, not else- where classified:				
	Department of the Navy-----	2	(1)	(1)	(1)
	Department of the Air Force-----	8	(1)	(1)	(1)
	Subtotal-----	10	-----	-----	-----

¹ Information not available.

*Standard Industrial Classification Manual.

TABLE V.—Commercial activities (excluding nonmanufacturing activities of the Department of Defense), arranged by industrial group and organization unit—Reported under Budget Bulletin No. 55-4—Continued

C. GOVERNMENT-OPERATED MANUFACTURING ACTIVITIES, DEPARTMENT OF DEFENSE—Continued

SICM* Code	Industry	Number of installations	Capital assets	Number of employees	
				Civilian	Other
38	Professional, scientific, etc.—Continued				
3851	Ophthalmic goods:				
	Department of the Army.....	2	(1)	(1)	(1)
	Department of the Navy.....	3	(1)	(1)	(1)
	Subtotal.....	5			
3861	Photographic equipment and supplies: Department of the Navy.....	2	(1)	(1)	(1)
3871	Watches, clocks, and parts (except watchcases): Department of the Navy.....	1	(1)	(1)	(1)
	Total, professional, scientific, and controlling instruments, etc.....	18	(1)	(1)	(1)
39	Miscellaneous manufacturing industries:				
3953	Hand stamps, stencils, and brands: Department of the Navy.....	1	(1)	(1)	(1)
3971	Fabricated plastics products, not elsewhere classified: Department of the Navy.....	{ 2 (2)	{ \$81,640 (1)	{ 86 (1)	{ (1)
3985	Fireworks and pyrotechnics:				
	Department of the Army.....	1	154,991	27	-----
	Department of the Navy.....	1	2,707,981	206	-----
	Subtotal.....	2	2,862,972	233	-----
3998	Models and patters (except paper patterns):				
	Department of the Army.....	{ 12 (1)	{ 1,320,547 (1)	{ 119 (1)	{ 78 (1)
	Department of the Navy.....	{ 3 (9)	{ 1,604,768 (1)	{ 154 (1)	{ (1)
	Subtotal.....	15	2,925,315	273	78
3999	Miscellaneous fabricated products, not elsewhere classified:				
	Department of the Army.....	1	8,015	4	-----
	Department of the Air Force.....	1	282,013	52	-----
	Subtotal.....	2	290,028	56	-----
	Total, miscellaneous manufacturing industries.....	22	6,159,955	648	78
	Grand total, Government-operated manufacturing activities, Department of Defense.....	357	2,229,454,160	166,105	3,572

D. GOVERNMENT-OWNED, CONTRACTOR-OPERATED MANUFACTURING ACTIVITIES, DEPARTMENT OF DEFENSE

19	Ordnance and accessories:				
1911	Guns, howitzers, mortars, and related equipment:				
	Department of the Army.....	1	\$38,977,862	-----	-----
	Department of the Navy.....	3	75,087,758	-----	-----
	Subtotal.....	4	114,065,620	-----	-----
1921	Artillery ammunition:				
	Department of the Army.....	5	95,278,916	-----	-----
	Department of the Navy.....	12	217,056,069	-----	-----
	Subtotal.....	17	312,334,985	-----	-----

¹ Information not available.
*Standard Industrial Classification Manual.

TABLE V.—Commercial activities (excluding nonmanufacturing activities of the Department of Defense), arranged by industrial group and organization unit—Reported under Budget Bulletin No. 55-4—Continued

D. GOVERNMENT-OWNED, CONTRACTOR-OPERATED MANUFACTURING ACTIVITIES, DEPARTMENT OF DEFENSE—Continued

SICM* Code	Industry	Number of instal- lations	Capital assets	Number of employees	
				Civilian	Other
19	Ordnance and accessories—Continued				
1922	Ammunition loading and assembling:				
	Department of the Army.....	8	\$452,764,554		
	Department of the Navy.....	1	114,597,508		
	Subtotal.....	9	567,362,062		
1929	Ammunition, not elsewhere classified: Depart- ment of the Navy.....	4	68,243,449		
1931	Tanks and tank components: Department of the Army.....	3	133,491,766		
1941	Sighting and fire-control equipment:				
	Department of the Army.....	1	11,504,409		
	Department of the Navy.....	2	12,617,688		
	Department of the Air Force.....	4	31,646,034		
	Subtotal.....	7	55,768,131		
1961	Small arms ammunition: Department of the Army.....	3	430,674,173		
1999	Ordnance and accessories, not elsewhere classi- fied: Department of the Army.....	1	5,912,792		
	Total, ordnance and accessories.....	48	1,687,852,978		
28	Chemicals and allied products:				
2826	Explosives:				
	Department of the Army.....	10	1,114,984,569		
	Department of the Navy.....	1	9,488,413		
	Department of the Air Force.....	1	15,594,904		
	Subtotal.....	12	1,140,067,886		
33	Primary metal industries:				
3352	Rolling, drawing, and alloying of aluminum: Department of the Air Force.....	2	40,354,680		
35	Machinery (except electrical):				
3519	Diesel and semidiesel engines; and other in- ternal-combustion engines, not elsewhere classified: Department of the Army.....	2	45,928,056		
36	Electrical machinery, equipment, and supplies:				
3692	Primary batteries (dry and wet): Department of the Army.....	1	2,367,497		
37	Transportation equipment:				
3721	Aircraft:				
	Department of the Navy.....	8	306,209,374		
	Department of the Air Force.....	13	301,927,733		
	Subtotal.....	21	608,137,107		
3722	Aircraft engines and engine parts:				
	Department of the Navy.....	5	187,074,849		
	Department of the Air Force.....	7	315,532,069		
	Subtotal.....	12	502,606,918		
3723	Aircraft propellers and propeller parts:				
	Department of the Navy.....	1	7,984,979		
	Department of the Air Force.....	1	6,859,744		
	Subtotal.....	2	14,844,723		
3729	Aircraft parts and auxiliary equipment, not elsewhere classified:				
	Department of the Navy.....	1	16,017,335		
	Department of the Air Force.....	2	96,087,604		
	Subtotal.....	3	112,104,939		
3731	Ship building and repairing: Department of the Navy.....	1	8,434,365		
	Total, transportation equipment.....	39	1,246,128,052		

*Standard Industrial Classification Manual.

TABLE V.—Commercial activities (excluding nonmanufacturing activities of the Department of Defense), arranged by industrial group and organization unit—Reported under Budget Bulletin No. 55-4—Continued

D. GOVERNMENT-OWNED, CONTRACTOR-OPERATED MANUFACTURING ACTIVITIES, DEPARTMENT OF DEFENSE—Continued

SICM* Code	Industry	Number of installations	Capital assets	Number of employees	
				Civilian	Other
38	Professional, scientific, and controlling instruments; photographic and optical goods; watches and clocks:				
3811	Laboratory, scientific, and engineering instruments (except surgical, medical, and dental): Department of the Navy.....	2	\$28,999,097		
	Grand total, Government-owned, contractor operated manufacturing activities, Department of Defense.....	106	4,191,698,246		

E. GOVERNMENT PARTLY OWNED, CONTRACTOR-OPERATED, MANUFACTURING ACTIVITIES, DEPARTMENT OF DEFENSE

19	Ordnance and accessories:				
1921	Artillery ammunition: Department of the Army.....	1	\$1,826,854		
1931	Tanks and tank components: Department of the Army.....	2	26,663,688		
	Total, ordnance and accessories.....	3	28,490,542		
33	Primary metal industries:				
3312	Steelworks and rolling mills: Department of the Navy.....	1	23,655,205		
3391	Iron and steel forgings: Department of the Navy.....	3	21,034,536		
	Total, primary metal industries.....	4	44,689,741		
36	Electrical machinery, equipment, and supplies:				
3641	Electrical equipment for motor vehicles, aircraft, and railway locomotives and cars: Department of the Air Force.....	1	4,137,387		
37	Transportation equipment:				
3721	Aircraft: Department of the Air Force.....	6	130,198,128		
3722	Aircraft engines and engine parts: Department of the Air Force.....	5	283,108,640		
3729	Aircraft parts and auxiliary equipment, not elsewhere classified: Department of the Air Force.....	1	5,091,085		
3731	Shipbuilding and repairing: Department of the Navy.....	21	157,064,190		
3732	Boatbuilding and repairing: Department of the Navy.....	2	857,217		
	Total, transportation equipment.....	35	576,319,260		
	Grand total, Government partly owned, contractor-operated, manufacturing activities, Department of Defense.....	43	653,636,930		
	Grand total, Department of Defense.....	506	7,074,789,336	166,105	3,572
	Grand total, civilian agencies and Department of Defense.....	19,771	11,863,990,569	328,092	8,096

*Standard Industrial Classification Manual.

EXECUTIVE OFFICE OF THE PRESIDENT,
BUREAU OF THE BUDGET,
Washington, D. C.

(OD-112—Information Office. For release Tuesday a. m., February 12, 1957)

An expansion of the review of the Government's commercial and industrial activities that provide products or services for the Government's own use, which could otherwise be procured from private enterprise, was announced today by

Percival F. Brundage, Director of the Bureau of the Budget. "Commercial and industrial activities" include such various types of work as manufacturing, fisheries, construction, transportation, trade, and services.

In a memorandum, issued at the direction of the President, Mr. Brundage requested each department and agency to evaluate the "services" portion of its commercial-industrial activities and gave further instructions regarding both the termination and starting of all commercial and industrial activities.

The evaluation of "services" activities follows an inventory of the Government's commercial and industrial activities and an evaluation of manufacturing activities conducted in the past year. The new evaluation will be directed toward determining whether the "services" activities should be continued in the light of administration policy, and toward taking appropriate steps to discontinue or curtail activities on the basis of the evaluation. Agencies are also to review the legal authorization for each activity and determine whether statutory changes are necessary to permit discontinuance. Reports on the evaluation are to be submitted to the Bureau of the Budget by April 15, 1957. A special time schedule is being established for the Department of Defense.

Of the 19,321 Government-operated installations performing commercial and industrial functions, as reported in the inventory issued last May by the Bureau of the Budget, 10,850 fall into the "services" category covered in the new evaluation. The Government has capital assets of \$125,354,353 for the conduct of these "services" activities in which 54,275 people are employed.

"Services" activities include custodial work performed at some 8,000 locations in the Post Office Department and at over 300 locations by the General Services Administration. They also include duplicating, blueprinting, and photostating performed at 3,400 locations by a large number of agencies; laundries of the Veterans' Administration; automobile repair services and garages of several departments; radio work the United States Information Agency does for itself instead of getting it by contract, and other miscellaneous services. The Bureau of the Budget directive will not result in discontinuing Government operation of all of these activities, but the head of each agency is to evaluate them and then act appropriately in the light of general policy.

Mr. Brundage emphasized the necessity for prompt and orderly action in terminating commercial and industrial activities if the head of an agency finds it reasonably possible to do so. He instructed the agencies to give adequate notice to communities and employees in advance of discontinuing or curtailing activities and to assist employees, as necessary, in finding other employment.

Additional instructions in today's memorandum are designed to control the starting of new commercial-industrial activities. No new activities are to be started until, as a minimum, the agency head has taken the following steps to assure compliance with administrative policy.

He is to:

1. Ascertain that the product or service is necessary to the conduct of a governmental function.
2. Provide a reasonable opportunity for private enterprise to indicate its ability to furnish the product or service.
3. Determine, on the basis of the response from private enterprise, that the product or service cannot be supplied on a competitive basis, or at a reasonable price, through ordinary business channels.
4. Determine that it is not in the public interest to procure the product or service from private enterprise, either because it is not available on a competitive basis or at a reasonable price, or because of overriding consideration of law, national security, or national policy.
5. Make an adequate record that the foregoing steps have been taken.

Steps 2 and 3 may be omitted where overriding considerations of law, national security, or national policy require that the activity be conducted as a Government operation, but in such cases the agency head is to make an appropriate record of his findings and conclusions to that effect.

Reports on approved new activities are to be made to the Bureau of the Budget by April 1, 1957. They are to cover the period between June 30, 1955, and December 31, 1956.

The administration's general policy with regard to activities that may be in competition with private enterprise, as stated in the memorandum, is that the Federal Government will not start or carry on any commercial-industrial activity to provide a service or product for its own use if such product or service can be procured from private enterprise through ordinary business channels. Exceptions to this policy shall be made by the head of the agency only where it is clearly,

demonstrated in each case that it is not in the public interest to procure such product or service from private enterprise.

Mr. HARVEY. The very promulgation of a Government policy and the establishment of guidelines is necessary, so that a specific type of Government enterprise can be weighed against these guidelines.

Representative CURTIS. It might be well if the Congress had a copy of that set of criteria to go over for their review. And maybe a panel of economists and accountants would be helpful in setting that up. That is what I had in mind in getting into this; because a great deal of this, it seems to me, if it is once decided that the Federal Government has to be in it, is necessary to have a more rigid check of whether it is an economic operation.

If we have real competition, the dreams of the individual get beyond economic reality, he goes bankrupt. And there is an automatic check in our private economy on these ideas.

Many of these people in the Military Establishment, and elsewhere—in fact you have the same thing in big corporations where somebody gets a bright idea of checking out as to whether it really is economic. But in the Government there cannot be that automatic check.

It seems to me, for that reason, it is very desirable that we build up something at least that will simulate the automatic check that we find in the private economy.

I would like to go on now, if I may, because I think it fits in very well, to Mr. Break's paper, where he was discussing these various programs that the Federal Government gets into. There, too, I think we have got a problem where in the private sector of the economy they are doing the same thing or could be doing the same thing. It requires capital formation in order to provide a guaranty, if it is done in the private sector.

Now, we have had some instances of the Federal Government going in and then phasing out. The phasing out is not too often. But in HOLC, I recall, where the Federal Government went in and then phased out; RFC, to a degree; although we have got the Small Business Administration carrying on.

When we were discussing the flood-insurance program, the idea of those who were promoting it would be that it would be a phasing out once it was determined whether the techniques were good.

But it seems to me there are many of these guaranty programs in which it is questionable what the economic effect has been in respect to the private sector. For instance, in housing. The drop in housing starts. In the past year or so it was quite interesting because almost the entire drop was in the Government-guaranteed area. The private sector remained pretty constant. Now, the question that immediately came to my mind was, What has been the effect of the fact that the Government has remained in the housing-guaranteed program to the extent it has on additional capital, private capital, coming into housing? Has that been a deterrent? And if we had a phasing out on that, would the private sector have taken over?

If it had, would that be a more economic way of continuing to operate?

Now, the other day I happened to attend the opening of the commodity futures-market building in St. Louis. One of the gentlemen who was making a speech, who was with the cotton exchange there—although there are other commodities, too, of course—very bitterly

attacked the Federal Government for moving into the commodity futures-market business, which, again, is a kind of guaranty operation, through the CCC.

I had never heard of that before. It became obvious to me that everyone in that particular industry felt very deeply that the Federal Government had moved into a private sector of the economy. I wonder there, how to evaluate the Federal Government moving into some of these areas of guaranties, or insurance, or loan as to whether (1) they should be in; (2) if they do go in, should it be on a permanent or a phasing out basis?

Inasmuch as your paper is devoted to that, Professor Break, I wonder if you would comment on that observation. And if you tend to agree, if you could suggest any guidelines as to how we should test whether the Federal Government might or might not be in these programs.

MR. BREAK. I certainly agree with you that we need a great deal more information as to the effects that each of these programs is having. And I think until we have that information, it is extremely difficult to answer the question you pose, "whether we should have them or whether we should not."

If the effects are very slight, I suppose it is more or less wasted effort to have the guaranties. You are not accomplishing very much. You might as well not have them. If the effects are substantial—and we really do not know at the moment—and I hope in the next year or so we will be able to answer that question more precisely—then you can decide whether you want to have those effects on the particular industry involved, or not.

If you knew how much more housing, for instance, is being built because of the Government guaranties or insurance, you could evaluate the complete elimination of that program as against expanding it or keeping it the way it is.

Representative CURTIS. It would be estimates, would it not, if Government were out. What would happen?

MR. BREAK. What would happen to mortgage terms and consequently what would happen to the demand for housing. Of course, you can, in the last year or so, phase out the Government's influence by raising general interest rates and keeping housing mortgage rates constant. You more or less cut off the flow of funds, which reduces the Government's influence, although the program is still on the books and looks the same as it did years ago. It has less influence.

Representative CURTIS. I have a bill in the House right now to stimulate—it is designed to, and I think it would—more private capital in the home-building field. Perhaps it would not stimulate so much in the actual home, but certainly in business centers that go with some of these housing developments, which is simply to permit real estate and investment trusts to have the same tax treatment that our present investment trusts in stocks and bonds have.

So, whether that would do it or not, it is possible for other ways to try to encourage private capital to go in. I think it has been obvious that rent controls certainly dried up and discouraged money going into rental properties, building more rental properties, and the areas that needed additional rental properties were the ones that

had recreated a tremendous deterrent on private capital going into that field.

I am not arguing pro and con, as to whether those programs should or should not be. I am simply trying to pose the question so that we could determine if there are any criteria of testing this business of whether the Federal Government should or should not get into the field.

Now, we had this very interesting exercise—interesting to me at any rate—on flood insurance. That was what I regard as an exercise in discussing the economics of it. It was not, as of course you find in the political arena, those who were more interested in helping people, who were damaged by floods; it is not a question that we disagree on the social need. It is a question of how is the best economic way of meeting the need.

Is it through a Federal program? Will that stimulate it the most, or will a Federal program, although seeming to stimulate, actually be occupying a position that otherwise private capital would move into. Is that not something we ought to think about in each one of these things and possibly ought to review each one of these programs the Federal Government is presently in?

Mr. BREAK. May I say one final thing. I agree with you about the need to do this. And I would like to say that I am working on this problem this year for the National Planning Association. I hope to produce some results that will be useful to you.

Representative CURTIS. I am very happy about that.

Mr. HELD. Mr. Curtis, I agree with everything that you have said about the importance of developing criteria in this area and certainly with what Professor Break has said about the lack of information. I think there is another aspect of this problem of Government getting into lending programs which should not be overlooked, particularly with reference to their economic implications in the future. That is the contingent liabilities which are created as a result of the Government's engaging in lending programs. Generally speaking, we do not have enough information on the extent of that contingent liability nor do we know what change in the economy might result in a heavier impact on the budget at some future time because of an economic downturn, perhaps, or the inability of people to make good on the loans which have been guaranteed by the Government.

Representative CURTIS. We have never had the recession. Rather the trend that has been on the upgrade where we have not had the problems. That is very true.

Mr. HELD. We have to keep this in mind in terms of future fiscal planning, because there are other possibilities that things may level off or have a slight downturn. What impact that would have on expenditures for lending programs in the budget is something we need to consider.

Representative MILLS. In our previous discussions with other panels, we were looking for some general principle that would improve the formation of spending policies in the light of the objectives of steady economic growth and stability. These discussions were concerned with the broad general questions which must go into determining the substance of public functions.

This morning we turn to the somewhat more immediate question of the mechanism by which these broad decisions, if we have reached decisions, are put into effect. That is, the budget process.

In our discussions, we have been hearing a wide variety of criticisms of present budget procedures. I will say that I hope before we complete this morning, that we will reach some definite conclusions that we can use in the subcommittee as recommendations that will pinpoint the principal deficiencies, if there are deficiencies, in the present budget procedures. I have a number of questions that I want to ask, bringing out the response of this panel as to whether or not there are specific deficiencies, and if you feel that these things are in the area of deficiency, what can we do to correct the situation.

Mr. Harvey, I know you will recognize that in this overall discussion this morning, of procedures for determining Federal spending programs, I am not unmindful of the fact that the procedures in the Congress, for doing that, are also somewhat deficient, as are the procedures within the executive branch.

So, I am not limiting my discussion merely to deficiencies in procedures within the executive branch.

Now, the first question is:

Does the budget contain adequate information for appraising the substance of the programs for which it applies dollar measures? That is, as of now.

Dr. Colm?

Mr. COLM. Mr. Chairman, I would answer your question with "No." I do not think that the budget document at the moment presents to the Congress the information needed for determining legislation and appropriations.

Representative MILLS. Now, may I interrupt you at that point, before you proceed further to ascertain whether there is general agreement in the panel on your answer of "No," to the question?

I see Professor Break is agreeing.

Mr. Weidenbaum is agreeing.

Professor Ruggles is agreeing, and Mr. Held, is agreeing.

Now, Mr. Harvey?

Mr. HARVEY. I would like to say that I agree with the word "no," but when Dr. Colm is through, I would like to make a comment.

Representative MILLS. We want you to have that opportunity. But now I want Dr. Colm to go ahead with his answer.

Mr. COLM. Mr. Chairman, I had one particular aspect in mind in which I think the budget is most deficient.

In my judgment it is unrealistic to think of the budget as an affair of one year, where in the spring of 1 year, the budget can be determined for the next 365 days.

As other panel members have emphasized this morning, the budget process goes over a long period of time. It does not start with the budget at all. It starts with legislation in many cases, and with authorization included in legislation. And very often a decision made today by Congress has its full effect 3, 4, or 5 years from now.

Therefore, the biggest deficiency in my judgment is that the budget document does not present to the Congress a picture of what the effect of legislation and appropriations will be over a number of years. If it is said that the budget is out of control, as it has been said, I think it is an experience of frustration that if you want to do something,

which has an immediate effect on next year's budget, you find your hands are tied. They are tied by legislation of the past, by contract authorizations of the past, by all kinds of commitments made, in the administrative process, for instance, of agricultural price support and in many other respects.

Therefore, I respond to your question about specific deficiencies and what information would help with the suggestion that the budget should include, as it does in many other countries, a statement about the outlook for a number of years under existing legislation, assuming that legislation of the past be implemented by future appropriations, and that also estimates be given for proposed legislation and their effects, not only of the next year, but over a number of years.

Representative MILLS. Now, you have said that the budget does not contain adequate information for appraising the substance of the programs for which it applies dollar measures. You have said that.

Now, Professor Harvey, I am recognizing you, but I would like you and the others to comment on whether or not the budget itself should contain that information; or should that information be ascertained in appropriations committees, or should it be advanced to the Congress in subsequent executive messages of some sort?

Or, should it all be right in the budget, along with the dollar value where anyone going through it could ascertain the information immediately?

Mr. HARVEY. Mr. Chairman, I agree that the budget document does not contain adequate information to measure the fiscal requirements of the Government. I must insist, however, along the line with what you have just said, that it is not possible for the budget document ever to include that much detail.

Representative MILLS. Well, can it include adequate information for appraising a program as well as measuring the need in dollars?

Mr. HARVEY. I do not believe that it is possible for the budget document to be increased just physically to the size that would be necessary to include all the information.

Representative MILLS. You would prefer that information be gathered as it presently is through the hearings in the Appropriations Committees?

Mr. HARVEY. And through the supplemental material which is furnished by each department to the committee.

Representative MILLS. Is that material made available to anyone other than the members of the subcommittee hearing the particular department request?

Mr. HARVEY. The detailed material is made available not as a customary thing to others than members of the subcommittee. However, it may be available for study of those who require it. Now, there is another aspect to it. There is a continuing nature to this information which comes up from the department. Each year's package and the detailed information that comes before the committee may not be complete from a zero base rejustifying all of the programs that are before the department.

Take, for example, in the Department of Agriculture, the Office of Extension; there is a program which is a continuing State-aid program which has a very definitely established base over a period of years. And it would be useless to attempt to detail, or to dig into the

detailed figures each year. You can get down to the point where there is a certain dollar amount which you know is going to be appropriated, because that is the amount which is the basic amount that is necessary to carry that program. And it is not necessary each year to get down into that much detail.

Representative MILLS. Let me ask you this: Now, in 1946, did the Appropriations Committee receive, Mr. Harvey, any information that would lead the committee to believe that the requirements of the Extension Service, dollarwise, would have increased by 148 percent by fiscal year 1956?

Mr. HARVEY. You mean in 1946?

Representative MILLS. Would the information have been of any benefit to the Appropriations Committee, that there was built into this program this expansion based upon economic growth and increase in population?

Mr. HARVEY. If the elements are present, or were present in 1946, if the budget decision in 1946 was of such nature as to permit an increase over a 10-year period that was irrevocable from that point on of such magnitude, it should have been in the material. I do not recall now what the situation was at that time.

Representative MILLS. I am not saying the Congress was not justified in making the increase. That is not my point. But the question is whether or not Congress had sufficient information to know that over a period of 10 years there would be that rise in expenses of that particular program. And as you know, the difficulty that we have in the Congress is being able to see what a program may be committing us to in the way of expenditures in the years beyond the year including the period of our consideration of the program.

Too often we start something without full recognition of the consequences dollarwise, and we wake up later on to the fact that we have committed the Government, and the taxpayers, to an outlay of money far in advance of what was suggested would be the cost when the program was initiated.

Mr. HARVEY. And I have sat on the floor of that House many times, and heard legislative committees come in with legislation, and when they were asked about the cost of it say, this may not cost anything. The Appropriations Committee will look after that.

But the legislative committees that bring out legislation and enact it very often do not disclose to the Congress the long-range cost. But the Congress has adopted the legislation, has enacted it, and put it on the statute books, and then the next year the budget comes up with a substantial amount in it.

A few years ago they enacted a piece of legislation. We do not know what the cost of it is and cannot tell, because I do not think the basic legislation took fully into account what it should have in that respect, when Congress passed the law about 2 or 3 years ago. This was the law authorizing a new program to aid municipalities in establishing sewage-disposal plants.

There is a limitation in that law on the amount that may be appropriated each year. I think it is \$50 million, or some such figure as that.

Representative CURTIS. Negligible?

Mr. HARVEY. Yes. Only \$50 million a year.

Now, once that is enacted, Congress is stuck with that predetermination of a \$50 million annual program. I know as well as I am sitting here when that program gets well underway and the communities around over this country begin coming in and knocking on the door for grants-in-aid and they run out of the \$50 million, the Department of Health, Education, and Welfare will be back up to Congress and saying, "This ceiling has got to be raised" and Congress will raise the ceiling, because they have already committed themselves to the program, and you cannot say to one town, "Well, you can have your grant" and then go over to the other town and say, "We ran out of money last night."

Representative MILLS. Mr. Harvey, there is no disposition on my part—and I am sure you know that, having known me for some 20 years—to criticise the Appropriations Committee and what it can do. I realize the problems of the Appropriations Committee. But I am fundamentally concerned with the fact that in my opinion the Congress is not given sufficient information to reach a determination based upon any scientific approach to what the needs of the Government are in the way of appropriations, and with respect to specific programs the Congress is not given sufficient information to reach any satisfactory conclusion upon any scientific basis of the needs of that particular program.

What I am looking for is some procedure that we can recommend to the executive departments that will enable the Congress to have greater access to information, and, therefore, have greater ability to make proper decisions with respect to spending.

I am concerned also about the fact that the Congress has to some degree at least lost some of its constitutional responsibility with respect to the procedures of appropriation, not because the Congress has wanted to—if I am right in the conclusion—but because the Congress has not had sufficient information to enable it to perform its constitutional function in the proper manner.

Whether you would agree with that or not I don't know. But I am very zealous of any right which the Congress has; that is, the legislative branch. And I want to see that right preserved and strengthened, rather than to see any further diminution of the congressional influence in the affairs of Government.

So that I make my statements because of those views which I have. My questions are for the sole purpose of trying to arrive at what I know you would have me arrive at—those conclusions.

Mr. HARVEY. And, Mr. Chairman, I agree completely with every word that you have said. The Congress has lost some of its constitutional control over the public purse. I deplore that. I view it with alarm. I think that it is highly important that something be done to restore to the Congress that control. However, step one in any procedure to restore that control would be at the time authorizing legislation is adopted to see to it that the Congress is fully informed as to the probable cost of these new programs.

Representative MILLS. You are exactly right.

Mr. HARVEY. As Dr. Colm has pointed out, the budget cannot be considered annual: it is a major fault to look on the budget as an annual budget. We must regard the budget in its long-range aspects. And anybody who tries to regard the budget annually and separate each budget and do something about it each year is going

to fail, because the steps that must be taken must be taken well in advance of the expenditure date, the long-range effect of legislation which is adopted, and new programs initiated.

Once a program is adopted, like this sanitation program that I just referred to, once that is adopted and finds its way into the structure of Government, it becomes a burden, not only a burden of the Government, but a right of the people from there on.

Representative MILLS. We practically said that the budget does not provide an adequate statement of the objectives of the various expenditure and appropriation requests. I wonder whether or not—and you can go ahead and discuss this other point—I wonder whether or not the panel would think that such a statement within the budget in more than just the general terms that now appear in the budget would be helpful to the Congress?

Mr. HARVEY. I think it might be very possible, Mr. Chairman, to devise a statement which would project over future years the probable increased cost of programs included in the budget, particularly new programs to be initiated.

Representative MILLS. There is general agreement among the panel on that point? I take it there is general agreement.

Mr. HARVEY. I think that could be done in a very few pages, very realistically, much of it in tabular form. However, I must confess to you, sir, that I would have some doubt as to the reliability of some of the information which would be furnished. The tendency on the part of the executive agencies would be to minimize projections of future cost.

I make that statement on the basis of experience, both as staff director for the Committee on Appropriations and as a budget officer in an executive agency.

Representative MILLS. And I notice that, Mr. Weidenbaum, you were agreeing with his thought there that it might be difficult to get full information.

Mr. WEIDENBAUM. Certainly the longer you go in the future, the more tenuous become your estimates. But I do not think this should preclude the attempt, because once again the earlier the stage of the budget process you pick up, the more you can exercise control. You can exercise very little control over the rate of next month's expenditure. You can exercise more control over next year's expenditures. You can exercise much greater control over the expenditures of, say 5 years from now.

You have to go to the earliest stages of the spending process that you can. I think the kind of approach that Mr. Harvey suggested would aid considerably in this regard. I would like to point out something on the problem of adequate information.

There is an unstated rule of thumb in budgeting, which I oppose. This rule of thumb is: The smaller and smaller the item involved, the greater the amount of detail presented in the budget document relating to that appropriation.

Representative MILLS. I did not know there was such a rule, but I am impressed with the fact.

Mr. HARVEY. May I suggest to Mr. Weidenbaum—I believe he at one time was in the Bureau of the Budget—that he is right, and the Bureau of the Budget is completely at fault in that respect.

Representative MILLS. Yes.

MR. HELD. Could we go back to the point you raised about the possibility of improving information?

I agree with most of what has been said, but I would take exception in this respect:

We can make considerable improvement in the format of the budget. I think that, as Mr. Harvey said, to go ahead and accept the present budget and to think of expanding it to include additional information, would preclude any real value being gotten from it.

But we can change our approach slightly if we go back to the basic job which the Congress has to do in connection with appraising the President's proposed budget. Fundamentally, it seems to me, this is appraising the various proposed programs, or segments of them, and Government operations and determining or assigning relative values to each of them.

Therefore, insofar as Congress is concerned, you have different publics with which you are dealing in Congress. You have the Appropriations Committees who are delegated the responsibility for making considerably detailed analyses of the budget; on the other hand, you have the remaining Members of Congress who have other specific areas of consideration and are looking for some ready means by which they can understand the judgments they have to make on the relative values of programs.

I think that is the public basically which the President's budget should be designed to accommodate. We can improve it by redesigning our budget along more functional or programs lines so that Congressmen can be enabled to make wise judgments about the value of major national security as against agricultural payments, and so on. If we can redesign our budget that way, it will help.

Second, we can provide the additional detailed information which is required for those publics in the Congress or elsewhere, including our organizations on the outside who follow this, by providing additional appendixes which would give more detailed information. That might help other groups and people who would like to explore the budget beyond the basic program or activity level.

Representative MILLS. Is there any further comment on this point?

MR. HARVEY. I hate to seem to impose on your time so much, Mr. Chairman, but Mr. Held has touched on one point I would like to comment on. He suggested revamping the budget along functional lines. He has mentioned major national security.

Now, there is presented in the budget at the present time a functional distribution of the costs of the Government, major national security, development of resources, and so on. Those figures that are included in the budget are purely statistical figures. They are not figures that can be or ever would be supported by any accounting system.

For example, major national security cuts across many department lines. It includes most, but not all, of the Department of Defense appropriations, because the Department of Defense has a few, such as the Corps of Engineers, nondefense activities.

It includes a part, but not all, of the Atomic Energy Commission costs. Now, when it comes down to considering the budget in the Congress, it is a practical necessity that the appropriations for a particular activity be all presented at one time.

So, I doubt very, very seriously if Mr. Held's suggestion of presenting the budget on the functional basis would be a workable thing so far as the working budget is concerned.

Actually there are two budgets. There is the speechmaking budget; and then there is the working document. They are all at the present time in one document, and some purpose might be served in separating the two.

Representative MILLS. Sometimes if you read the speechmaking document before you do the other, it is difficult to understand the other; isn't it?

Mr. HARVEY. That is exactly right, if the two were divided so that the working document had pulled out of it all of this functional material and information, statistical information, which is useful and necessary information; and that is the information which is more necessary in economic studies. It does not mean anything to the economists to know how much is appropriated for the Department of Agriculture this year. But it means a great deal to the economists to know how much is provided for a particular type of activity for agricultural programs which may run through other departments and may find its way into the channels of trade and that sort of thing, so that there might be some virtue in dividing the document and separating the two.

Mr. HELD. May I answer that particular point?

I would agree basically that what we have now, Mr. Harvey, in terms of functional information in the Federal budget is a statistical thing which you could not prove by any accounting system and, as Mr. Weidenbaum will agree, the present accounting system is not set up to do it.

May I remind you that in municipal and some State governments, we have had the development of essentially functional type budgets, because the organizations of the agencies themselves were built around functional concepts. So, therefore, we can basically break down these things and set up our accounting systems accordingly, which is only the method of recording data. That is, we can set up our accounting system to accommodate these needs. This takes a change in concept.

We have to go back to the basic point. What is the Congress asked to determine? It is asked to determine the relative values of services and regulations which the people of this country demand, and the ability of the economy to support them. We have got to get the budget, it seems to me, into some meaningful presentation so that Congressmen can make these decisions without being accountants or budget technicians.

Mr. HARVEY. I cannot quite drop it there, Mr. Chairman. What Congress is called upon to determine each year when the budget is presented is how much are you going to appropriate to a particular department to carry on a particular program? That is the question that is asked and must be answered.

Now, we have tried in the Appropriations Committee—and I must confess I got my nose very bloody a few years ago when I got my neck out too far too fast on performance budgeting. I liked that idea, and it was a good idea. It is still a good idea. We accomplished a great deal with it. But we didn't accomplish it until we were able to work out performance budget concepts that fit into the accounting systems and the management controls within the departments.

Representative MILLS. Mr. Harvey, my concern is that legally your answer is right. But there are other factors that lead up to that final legal conclusion by the Congress as to what this particular agency must have to perform its particular function.

Now, what I am getting at is what I think may be lacking somewhere in the overall information given to the Congress and which, if it were not lacking, would better enable the Congress to reach a better conclusion as to what is actually needed by this particular agency to carry on this particular function.

We have decided, of course, already for this purpose, that this function belongs in the Federal Government. Now, we come to the mechanism of trying to determine budgetwise what is required in this particular fiscal year for this agency to perform this function.

Now, would you say that out of the budget, out of the additional explanatory papers that are given to the members of the Appropriations Committee, that the executive department has provided the committees of Congress charged with this responsibility with all of the information that the members of those committees should have to make the best judgment with respect to the final conclusion of what money this agency actually needs to carry on this particular function?

Mr. HARVEY. I hesitate to answer your question categorically, Mr. Chairman, because I must confess that I have seen instances where I know that the agencies had not supplied all of the information we ought to have. I thought probably in some cases it was our own failure to ask for or secure it.

Now, what I would like to say here is this: That there is no procedure, no system, which can be adopted which will assure that all information will be before the Congress. The thing that must be done is in each instance the Committee on Appropriations or whatever subcommittee has jurisdiction must go into it with the department through such agencies and instrumentalities as they may have, and investigate if need be, which they often do, provide for staff analyses of data as they always do, and call on the departments for additional supporting information. And through that process over a period of time, they should build up the information that they need to make the case.

That responsibility devolves upon the members of the particular committee in charge. I do not think it is possible to devise a system which will automatically accomplish it. And I think that is one thing in which we have been in error over some years. Everybody has been trying to devise a system which will guarantee results.

Representative MILLS. I would agree with you that you cannot have any rigid system, of course, in making these determinations. But let me ask you a series of questions. And if you will keep them in mind and then let's comment to see whether or not these things would be helpful.

Should the budget afford any evaluation of how effective the activities it proposes were in the past in achieving the purposes of these activities?

Mr. HARVEY. I didn't understand the last part of the question.

Representative MILLS. Should the budget for this fiscal year, say, afford any evaluation of how effective the activities it proposes were in the past in achieving the purposes of these activities?

Should the Congress forever continue to make appropriations for some activity that in the past has never achieved the purpose of that particular activity?

Does the Congress have in the budget information that would lead to its determination of "Yes" or "No"?

Does the budget provide an adequate picture of how the myriad activities of the Federal Government are related, and should it?

Does the budget provide any information about longer range prospects for these various programs in terms of their costs and their objectives?

We have alluded somewhat to that already.

Does the budget adequately note any consequences of these programs which may not be the immediate objectives of the programs?

Does the budget adequately describe the likely effects of the activities of the Federal Government on the level of economic activity, employment, prices, and opportunities for, and limitations upon, investment, and other growth-generating activities in the private, State, and local government sectors of the economy?

Does it adequately suggest the types of adjustments which may have to be made in these sectors if our basic continuing objectives of steady growth are to be achieved?

And, finally, does the budget set forth any plans for savings in use of resources while carrying out the functions it proposes?

Now, of course, we realize that the budget does not adequately provide any of these things. But the point is: Should the budget provide these things? Would it enable us to adopt better procedures for determining Federal spending programs if the budget did include some element, if not all of the elements of these points.

Now, Dr. Colm, could I hear from you on that, because I know you have made a study.

MR. COLM. In the paper which I submitted to the subcommittee, I made suggestions which I did not summarize this morning. I made the suggestion that for each program there should be an estimate of the costs which the program over its whole lifetime would accrue. And, second, there should be a statement of the economic and noneconomic benefits. I do not go into the detail, but I think particularly using certain river-basin programs as a test—there was an interdepartmental committee which for many years has worked on the cost-benefit evaluation problem, not with complete success, for reasons which to discuss would probably take too much time. I also suggested that there should be a statement of what would be the effect if a program under consideration would not be adopted. Would either State, local, or private activities take the place of it? And what would be the comparative costs?

I do agree with you, Mr. Chairman, and I think the others agree also, that we ought to have such a statement for each program.

Now, a suggestion has been made concerning budget examination that would in itself be desirable, I mean, using the zero basis not only for new but also for old programs. This is a very good, sound proposal. If you adopt that proposal, you also should be ready, I think, to multiply the staff of the Budget Bureau by five. The present situation—and when I say "present" it was the situation at the time when I was close to that activity—

Representative MILLS. Well, increasing the expenditure for the Bureau of the Budget might actually result in real economy in Government.

Mr. COLM. Yes. But the zero basis—what I am trying to say, Mr. Chairman, is this: There is now a great deal of concentration on every change from the previous year's appropriation. This is the second "Parkinson's law" which has been quoted here. There is a great deal of truth in that. But I think it is not realistic to propose that each program could be examined each year from zero on.

My proposal is that it should be done on a rotating basis; that 1 year, let's say, the whole agricultural area should be examined from zero on and in other years, the Veterans' Administration, and so on. But I do not think it is realistic that this could be done for every program of the Federal Government each year.

Representative MILLS. Is there agreement among the panel on that suggestion?

Mr. HELD. May I raise one question on that? I have a suggestion in the paper that we build a budget from zero. Wouldn't, to a great extent, this depend, Dr. Colm, upon the method which you used, or the format or presentation which was used in the executive agencies?

For example, if we follow what Mr. Weidenbaum has said, that you give more detail for the smaller items, obviously we could never review a budget from zero. However, where we have things which can be measured in quantitative terms, for example, the method of presentation might permit a fairly good evaluation from zero on an annual basis.

In other programs where we do not have a quantitative measurement that can give us this type of quick answer for a value judgment, we would have to rely, perhaps, upon something over a period of a year, maybe 2, 3, 4, or 5 years.

Representative MILLS. Professor Ruggles, you made some suggestions in your paper that dealt specifically with some of these points I raised.

Mr. RUGGLES. I have been rather horrified, as a matter of fact, to consider how meticulous the Government is in auditing the accounts of corporations for corporation profits taxes, and so on; yet, when it comes to their own internal cost accounting, they have had a rather different approach.

Representative MILLS. Two separate units are used.

Mr. RUGGLES. It seems to me the basic reforms has to be at the smaller unit, first, and then this can be built up and brought together. And I would agree with Dr. Colm's suggestion. Projections need to be made. But they need to be made on the basis of realistic accounting, past expenditure data, and projected future expenditures, and not a functional basis but by spending units. Then, after you build this up, you can reclassify it, perhaps, on a more functional basis. But I agree that these last are statistical estimates. For example, are roads defense, or are they something else? This is a political question. It is not an accounting or a statistical question. Any functional classification essentially is a political problem. It is a problem of purpose. You have to read the minds of the people passing the laws to figure out what purposes they intend, and this is rather difficult.

But I would feel that the accounting reform that is needed has to occur at a lower level. Perhaps there should be something analogous

to auditing, with the view not to honesty so much—because I think that is fairly well taken care of—but as to whether the data shown do present the full information that would be useful for analyzing or evaluating performance. I think progress has been made in that, as Mr. Harvey points out.

Representative MILLS. Professor Ruggles, you would agree that some of the thoughts I have suggested here for the inclusion of information within the budget are good?

Mr. RUGGLES. I do not feel that there is too much information given in the budget now. Lots of detail takes lots of room. A dictionary has lots of words in it, and we don't use them all either, but it is nice to have them all in it. And no one has suggested small dictionaries because they are much more convenient to use.

Representative MILLS. I wonder how much of a volume the accountants would accumulate with respect to the corporations? We are spending some \$72.5 billion in the fiscal year.

Mr. RUGGLES. Census has a lot of the accounts of firms, and they are not so voluminous.

Mr. WEIDENBAUM. I think we run into the problem—and a number of the panelists have alluded to it—that the budget document is essentially a halfway house. It is somewhere between the committee print published by the Appropriations Committees, which contains the detailed schedules relating to the individual departments, and the budget in brief, which is an attempt to explain the Government spending program to the general public. You immediately run into the problem that the budget document has a number of publics; it has the Appropriations Committee; it has the Congress in general; it has the newspaper reading public; and then it has the financial specialists.

A good deal of thought has been given by a number of people to the possibility of dividing the budget, that is, preparing something which will meet the needs of the Appropriations Committee and all the detail, the workload data, all the myriad information that the members of the Appropriations Committee need at their fingertips; and a broader kind of document, something which the Members of the Congress generally, the interested business and private interests, could use which would not give them detailed information on specific appropriation accounts, but point up the big programs in the various departments.

I would like to point out that even though the functional classification is essentially statistical, the estimates on which it is based are not. It is built by adding up the estimates for the individual appropriation accounts.

Representative MILLS. Under existing law?

Mr. WEIDENBAUM. Yes.

Representative MILLS. Mr. Harvey.

Mr. HARVEY. Mr. Chairman, if I could make one definite suggestion here this morning, I would go back to what I mentioned a moment ago, and along in line with what Mr. Weidenbaum has said, that we would do well to divide the budget document and take what I referred to as the speechmaking part out, the economic studies, the functional side, take that out and produce it in a separate document and then print the budget for the use of the people that have to get down into it. Nobody else would need to bother with it.

Mr. Chairman, you asked a number of questions that add up to about—well, they go beyond the \$64,000 level.

Representative MILLS. We are dealing here in \$64 million questions.

Mr. HARVEY. I would like to ask permission, if I may have a copy of what you asked, to prepare a statement for the record on it. It would be brief, but I would like to study it a little bit before answering.

Representative MILLS. I would like to have all of you do that, if you wish to.

Without objection that will be included in the record at this point. (The questions follow:)

1. Does the budget contain adequate information for appraising the substance of the programs for which it applies dollar measures? Is the budget document itself the appropriate means in which to convey such information, or should we depend on the work of the Appropriations Committees, and additional executive statements for explanations of what is in these programs?

2. Does the budget provide an adequate statement of the objectives of the various expenditures and appropriation requests it presents? Can we tell, in other words, what purpose these expenditures are to serve, except in the most general terms, without seeking additional explanatory statements?

3. Does the budget afford any evaluation of how effective the activities it proposes, where these are continuations from prior years, were in the past in achieving the purposes of these activities?

4. Does the budget provide an adequate picture of how the myriad activities of the Federal Government are related to each other? Does it adequately bring together, on a program basis, these various activities?

5. Does the budget provide any information about longer-range prospects for these various programs in terms of their costs and their objectives?

6. Does the budget adequately note any consequences of these programs which may not be the immediate objectives of the programs?

7. Does the budget adequately describe the likely effects of the activities of the Federal Government on the level of economic activity, employment, prices, and opportunities for and limitations upon investment and other growth-generating activities in the private and State and local government sectors of the economy? Does it adequately suggest the types of adjustments which may have to be made if these sectors of our basic, continuing objectives of steady growth are to be achieved?

8. Finally, does the budget set forth any plans for savings in use of resources while carrying out the functions it proposes?

Mr. HARVEY. I would like to comment now on one point. As I understood it, you asked if the budget should include an evaluation of the activities that are in the budget each year. That is, if I understood you, evaluation of the success of the program up to that point, how it has achieved its purpose?

Mr. Chairman, the fact that the budget includes an estimate for next year for continuation of the program is their evaluation of it as I would see it. They would not include such an estimate and then say this program has failed. Or it has fallen short. They would never sell themselves short in that respect.

Representative MILLS. Well, that is the reason why a temporary program of government never is temporary. We understand that. There is always somebody who can justify continuation of it.

But what I am getting at is: The information should be made on a factual basis—it should be made available to the Congress on a factual basis of what has been accomplished, if anything, under this particular activity. To what degree has this activity accomplished the purpose for which Congress started the program?

Mr. HARVEY. I think the only way that can be developed is by the Congress itself in the hearings process. The department is not go-

ing to come up here, and the Bureau of the Budget is not going to come up here—

Representative MILLS. Why wouldn't the Bureau of the Budget be the proper agency of government to make evaluations?

Mr. HARVEY. Well, the Bureau of the Budget is a political office, Mr. Chairman. It is an arm of the President of the United States. It is a policy-determining agency. It is a political agency. It must support the President. It is a part of the executive branch and must support him.

Representative MILLS. Don't we need something somewhere as an independent agency of government or as a part of the Congress to make those evaluations and present them to us?

Mr. HARVEY. Mr. Cannon of Missouri introduced a bill about 4 years ago to do that very thing. He would have set up the Bureau of the Budget in an analogous position to the General Accounting Office, taking it out of the executive branch. He would have appointed the Director of the Budget for a 15-year term and the Comptroller General is appointed, and would have required him each year to submit to the Congress a budget definitely in balance and showing the cost of programs.

The purpose of that bill was to minimize the political nature of the budget.

You could not, of course, prevent the President from submitting any additional recommendations he might desire with respect to it. But the Congress would have before it under that system each year a basic budget prepared by an independent agency. How successful that would be I do not know.

Representative MILLS. Well, now, you and I know, Mr. Harvey, that the executive needs some budget bureau of some sort through which requests can be made and determination reached as to whether or not they are in accordance with the President's position.

You and I would recognize the validity of such an agency in the executive.

Mr. HARVEY. I agree with that.

Representative MILLS. The weakness apparently exists in the Congress, in that Congress has no agency of that nature from which it can obtain factual information rather than political information.

Mr. HARVEY. I have said in my paper, Mr. Chairman, that the difficulty lies in the fact that the Congress does not and cannot under the present system participate in the decision-making stage of preparation of the budget.

Representative MILLS. I do not think it should in the decision-making stage. I think the decisions should be made within the executive. Then such information as is necessary should be submitted to the Congress for the Congress to decide whether those decisions are good or not, dollarwise.

Mr. HARVEY. When the executive branch has made its decisions and has prepared its budget, then at that point the Congress moves in. At that point also, the executive agencies gird themselves for battle. They prepare the material which they are going to submit to Congress and all the information which is brought up here to support the President's budget.

The factual data which they bring up will be prepared in that light. There is no way I know of where the Congress can get at the raw.

unrevised facts as long as those facts and that material are under the control of the executive branch.

And the Congress is not permitted to participate in this process until after they have made up their minds what they are going to do and decided what they are going to tell Congress. It is just that simple.

Representative MILLS. Doctor Colm.

Mr. COLM. Mr. Chairman, I just want to indicate that here is the point where the experts disagree.

I do not want to go into the details; but I would like to make two brief points.

One: Congress gets into the act much earlier than the budget-making process starts. Most activities of the Government are determined by laws. And Congress has its main and primary budgetary responsibility in the moment when it makes the law.

Representative MILLS. That is when the Congress should be concerned about it?

Mr. COLM. That is the point where the Congress should be presented the best possible estimate of the full budgetary consequences of legislation which is under consideration.

Then it is up to the executive to make the estimates of what is exactly needed in order to implement the law. And at that point I do not follow Mr. Harvey, at least not in detail. I do think that making these estimates is an executive function. And the moment you relieve the President of the main burden of that function, then the President has no responsibility for the budget proposal and the whole burden is put on Congress.

If expenditures get out of hand the President can say, "This is done by an agency which is not under my control, and I am not fully responsible for that."

I think you have to leave the full function of budgetary preparation in the executive, and Congress has to go over it with its own resources.

Representatives MILLS. Before it slips my mind: Mr. Harvey suggested he would prepare a very brief answer to each of these questions. I do not want to unduly delay you gentlemen.

Would it be imposing upon you if each of you would undertake that, if I supply you with a list of these questions that I raised?

(See p. 321)

Mr. MAGILL. I think we would like to. I don't know whether I am indicating agreement or disagreement, but so far as I noted down your suggestions—and I would much rather have the correct and accurate statement of them—so far as I noted them, it seemed to me each of them is excellent, and moreover, that the executive character of the budget would be greatly improved if this information were asked for and this kind of information given.

Now, what you are asking for is quite different information from what is currently contained in the budget. It is a different kind of document. But it seems to me it goes a long way in the direction which I was trying to advocate; that is, to try to restore attention to the great policy considerations which are involved. That is, what priorities should there be among expenditures? What revenues have we to work with? What kind of a program should we have for expenditures to accomplish the objectives of your Committee of Economic Growth and Activity?

You will get much more out of this than you were getting out of the current budget, in my view.

I should very much like to see something of this sort done.

Representative MILLS. Without objection that will appear at the appropriate place in the record when you supply your answers.

(See p. 331)

We have talked largely this morning about what to do with the budget itself, how we can improve it, if it is possible to improve it. And I think some of the suggestions that you have made are very good and maybe the committee can come forward with some firm recommendations to the executive department for improving it. But now, since I am the only Member of the Congress in the room, you folks can let your hair down, if you will, just a little bit and give me some idea of what we in the Congress can do to improve our procedures for determining Federal spending programs.

Professor Break, you came all the way from California, and I know you have seen how we work. Would you have any thought on that?

Mr. BREAK. This, Mr. Chairman, is not an area in which I have done any detailed work. So, mostly I would repeat my—or I would generalize the point in my paper that additional information about the effects of various kinds of taxes, various kinds of expenditures, the programs of the Federal Government which are not reflected in the budget wholly or in part, that if the Congress had this information, it could do a much better job.

Representative MILLS. Make a more intelligent decision?

Mr. BREAK. Yes.

Representative MILLS. Doctor Colm.

Mr. COLM. Mr. Chairman, I just want to pick out one point. I feel that this committee has a grave responsibility for an examination of the whole fiscal policy of the Federal Government from the aspect of achieving the purposes of the Employment Act.

You said we could let down our hair, so I state in full frankness that I am a little worried about the manner in which this committee can have an impact on the other committees of Congress, specifically the legislative committees, and there specifically the Ways and Means Committee and the Senate Finance Committee on the one hand, and the Appropriations Committee on the other.

Representative MILLS. Well, it would be my thought, of course, that such recommendations as we would make to other committees of Congress would bear upon the jurisdiction of this joint committee, namely, implementation of the objectives of the Employment Act of 1946.

Mr. COLM. Mr. Chairman, I have seen the difficulties of getting the Budget Bureau and Economic Advisers recognized by the various department heads as an instrumentality of the President.

Now, I would say that has been largely achieved during the last few decades. But I see that there is a big jurisdictional problem also on the side of Congress to have the advice of the committee taken seriously by the committees which have to make the decision. I know that the committee, through its membership and staff, has gained a very great standing in Congress and in the professional world.

I believe that proper channels and procedures should be developed by which the advice of this committee can be made to be heard there where the decisions are made.

Mr. HARVEY. Mr. Chairman, each year the high water mark in the budget consideration is the budget as presented by the President. That is, so far as number of dollars is concerned.

The low-water mark—and this is year after year, traditional pattern—the low-water mark is the appropriations reported out by the House Committee on Appropriations and usually enacted by the House of Representatives in substantially those amounts.

From there on, the figures go back up. Higher figures in the the Senate; some compromise in the House. And, finally, lower than the President's budget. But the high-water mark is the President's budget. The low-water mark is the House.

May I suggest to you, sir, that consideration needs to be given to the improvement of the process in the Executive to hold the budget down at that point, because the House of Representatives is now doing the best job of any of the review agencies on the budget—any of them.

Representative MILLS. I have been thinking that. Thank you, sir.

Mr. HARVEY. Now, that is proven by statistics; it is not judgment of mine. It is facts.

Everybody wants to support the President and then give Congress hell for not cutting the budget.

Mr. HELD. Mr. Chairman, I have a section in my paper which is devoted to this. Let me just point out about 4 or 5 principal things. Before any major changes are made in congressional organization or procedures, it ought to be done on the basis of a very careful and comprehensive study of all the existing ones, and the possibilities that have been suggested by scholars, students, and practitioners in this problem area for some time.

Representative MILLS. May I just interrupt you for a moment.

Do you believe there is need for such a study?

Mr. HELD. Yes, sir; I believe there is need for such a study because, as has been developed here today, our problem is strengthening congressional control. And it ought to be done on the basis of a systematic study.

Among its objectives, it should seek to get at some of the problems which have been discussed here today which would provide a review of the budgetary picture as a whole, looking at revenues as well as the expenditure program, gearing them within a framework of fiscal policy which presumably would be set forth by the Joint Economic Committee.

It would involve, as well, a consideration of the long-range developments of the budget, the long-range implications, as Dr. Colm has indicated. We can further strengthen the appropriations structure so that it is much more meaningful. And when a Congressman or a layman must use the budget or the appropriations structure upon which the budget is built, he could get some understanding of what the Government is proposing to do, what level of program the Government is expecting to carry out, and, thirdly, how it expects to do this. Then he can make an independent and somewhat intelligent appraisal.

It is also necessary to strengthen our long-term program, or control our long-term capital development programs. I think the integration of these with current operational activities somewhat confuses the real requirements as well as their economic implications. Those are the major points I would have here.

Any study and improvement would have to be done on a comprehensive basis. I do not think there is any one point that you could tighten up and do the job. There are a series of them.

We have been talking about the evaluation of performance of the executive agencies by Congress. I think we have the mechanism for doing that right now if the Appropriations Committees are properly fortified. Or if you favor the idea of a joint budget committee, perhaps it could be done there.

But in the absence of a joint budget committee, certainly it seems to me that strengthening the Appropriations Committees so they have more control over all budgetary matters would be extremely helpful.

As you know, there are several ways in which the authority to incur liabilities for the Federal Government can be achieved by Federal agencies. Appropriations only happens to be one of them.

There are authorizations to expend from public-debt receipts; there are contract authorizations—and there are reappropriations which in some budgetary totals are not even computed.

These are areas in which the whole picture is somewhat beclouded. If we get around to the point of simplifying this thing and getting down to one basis for granting authority to incur liabilities, and place that control in the Appropriations Committees, I do not think we will have any problem. Because the Appropriations Committees have done an extremely good job in reviewing the budget.

Representative MILLS. Let me ask whether or not this panel would agree that present and existing procedures for determining Federal spending programs are such that with respect to the adequacy in reporting information they almost of necessity must breed some degree of waste, extravagance, and inefficiency in the use of the taxpayers' dollars.

Is that too strong a statement?

Mr. HARVEY. I think perhaps the statement is just a little strong to say that system as such—

Representative MILLS. I said procedures. I did not say system.

Mr. HARVEY. If you will extend it to the procedures of Government generally rather than just to the budgetary and accounting processes.

Representative MILLS. I said procedures for determining Federal spending programs. You would agree; would you not?

Mr. HARVEY. I would agree if you extend it to Government procedures, generally, yes.

Representative MILLS. That is what I am talking about. They would all come in.

Mr. WEIDENBAUM. Unfortunately—and I do not have in mind the corporation with which I am presently affiliated—I think this problem of waste and inefficiency extends beyond Government enterprise. It is not necessarily limited to large-scale organizations. Any organization is bound to generate some amount of waste.

Representative MILLS. Yes. But most of the organizations that I know anything about that can succeed in a business way in the private

sector have better procedures, do they not, for determining their programs of expenditure than we do?

Mr. WEIDENBAUM. This varies a good deal. You can see at the present time that there is much discussion in the business press about the need to curtail cost, because of the present decline in profit margins. This indicates that in the previous period when profit margins were more liberal, probably less attention in business firms had been placed on this subject.

Representative MILLS. Professor Magill?

Mr. MAGILL. In view of the time of day, I have little to add to what was said. Overall it seems to me that what you have said and what Mr. Held said, a few minutes ago, are the matters which I would wish to emphasize. That is, that the information which you have already with respect to the detail of expenditures, I think is quite adequate. I do not think you have adequate machinery for contrasting overall expenditures and the policies of expenditures with overall revenues for particular years and for the period ahead of us. And what you need is better procedures for considering broad policies as distinguished from these decisions with respect to smaller amounts of expenditures, these negligible amounts you spoke of.

I think much would be accomplished if the questions which you have addressed could be answered affirmatively. I think those are all excellent suggestions.

Mr. RUGGLES. With respect to your question on what the legislative branch can do and what the possibility of action is here, I have been somewhat impressed with the passive roll that the legislative branch has played, in that they are essentially recipients of the information prepared by the executive branch; and where they do not play a passive roll, it is rather on an unsystematic ad hoc basis.

It would seem to me that the legislative branch is in a strategic position to investigate the problem of what information they would like to have and to request such information. The information could be cast into a more comprehensive framework, and it could be obtained on request from the executive department because of the relationships that obviously exist with respect to appropriations. I think the Congress would get excellent cooperation if they made such request.

Representative MILLS. At that point are you suggesting that possibly the Congress should make greater use through its committees of the function given to the committees in the Reorganization Act of 1946, following through with respect to the operation of these programs by more intensive review and investigation of the agencies within the jurisdiction of the committees?

Mr. RUGGLES. I think that is extremely useful, but that is not what I was suggesting. I was suggesting something I thought was more basic than that. That is useful on an ad hoc basis in specific instances. I think there is a more basic question, which is: Is the information that Congress is receiving the correct information? Does it provide the long-range picture as suggested by Dr. Colm? Does it provide adequate detail of the sort that Congress would be interested in, not swamped by? And I would feel that you would have to have a

study within the Congress to determine what sort of information is required to act on appropriations. So that would be my suggestion.

Representative MILLS. Mr. Weidenbaum, do you have anything further to add?

Mr. WEIDENBAUM. I would like to make just a few points, Mr. Chairman. First, in connection with the organization of the subcommittees of the Appropriations Committee, a good deal of progress has been made in recent years in getting to a closer so-called functional classification.

That is, the various agencies handling a given type of activity would fall under a specific subcommittee. I think—and this is limited by problems of organizational structure in the executive branch—more consideration can be given to this. A given subcommittee of the Appropriations Committee could examine the various natural-resource programs. Another subcommittee could examine the various programs relating to transportation, commerce, and industry, and so forth.

I think this would have great impact on the development of Government programs, particularly from the viewpoint of economic growth and stability.

Another thing I would like to emphasize—and this is in affirmation of some of the previous panelists—the need for budget authorizations to go through the Appropriations Committee. This is not concerned with terminology; it is not a question of using a term “new obligational authority” or “public debt authorizations”—but the idea that all authorizations permitting Federal agencies to make expenditures should, at some point, go through the Appropriations Committee.

I would also like to make the point that the Joint Economic Committee itself can exercise an important role in setting up the framework within which the Members of Congress generally and the Appropriations Committee specifically can evaluate individual budgetary situations.

I think the committee is ideally situated to relate the overall levels of revenue and expenditures to economic developments. I think the Appropriations Committee, and certainly its subcommittees, have to devote most of their time to the individual programs with which they are concerned.

But a committee of this nature can focus on the big, emerging issues.

I want to add a last point—and again I think this committee could make a contribution—the need for improved public and congressional understanding of the nature of the Government spending process. So much of the discussion about cutting the budget and the uncontrollability of the budget, I believe, stems from a lack of awareness of the extended nature of the Government's spending process. As an obvious example, the Congress can control the flow of spending by reducing appropriation requests, and it can rescind existing appropriations.

To that extent, the budget is never completely uncontrollable. You remember that after World War II the Congress passed rescission bill after rescission bill. This is the kind of thing that Congress may want to give a bit more attention to at a later date.

Representative MILLS. We have often said that it is the responsibility of the Congress to determine fiscal policy. It is the responsibility of the Federal Reserve to determine monetary policy.

Can the Congress, under existing procedures, determine fiscal policy taking into consideration the fact, as Mr. Weidenbaum so well pointed out, of the lag that exists between appropriations and expenditure of funds?

In other words, can the Congress exercise proper control of fiscal policy under the existing procedures with respect to Federal spending programs?

Have you thought in terms of that?

In order to determine fiscal policy, I would think you would determine what would be spent within a certain year. You would determine what would be collected within the year, whether there is an excess to put on the debt or whether there is an excess to be used in tax reduction or otherwise. I am thinking in terms of what happened this year when the President in his budget to the Congress proposed expenditure of \$71.8 billions and the Congress reduced appropriations by some \$4.9 billions.

The budget indicates that the Federal Government will spend \$72 billions in this fiscal year.

So what Congress has done has had no effect upon the spending program because of the backlog of authorizations and appropriations previously given. If the Congress granted \$66.9 billions to be spent in fiscal year 1958 should the Congress have done something other than what it did to accomplish that objective?

Mr. WEIDENBAUM. First of all, the Congress could have taken some very significant steps though, I am afraid, a little earlier, at an earlier stage of the process.

Representative MILLS. The reason it did not was because it did not have all this information that we are saying it should have had.

Mr. WEIDENBAUM. Mr. Chairman, I think it was apparent that when the amount of new appropriations to the Government for the past several years was raised over the previous level, that the level of expenditures a few years hence would be increased.

Representative MILLS. I do not know that that was apparent to everyone. It may have been, but it was not realized to the full extent of the raise.

Mr. HARVEY. Mr. Chairman, so far as determining fiscal policy is concerned, I think it must be done on a fairly long-range basis. It cannot be done on any 1-year basis. And this past year's operations are proof of it. As Mr. Weidenbaum has pointed out, the pattern for this year's expenditures were cut 2 or 3 or 4 years ago. The \$4 billions that Congress took out of the budget this year will be reflected in expenditures 2 or 3 years from now.

Representative MILLS. What I am getting at is this: Should the Congress be in the position of determining the maximum level of dollar expenditure in the aggregate in any one fiscal year. If it is not in that position, how can the Congress ever tell with any degree of certainty when to proceed to reduce taxes, or know ahead of time when it should be called upon to raise taxes if a balanced budget is to be maintained.

Mr. HARVEY. I do not think it can be handled on a 1-year basis. I do not think it is practicable to handle it on a 1-year basis.

Representative MILLS. Mr. Held?

Mr. HELD. I think there is one thing we overlooked here too, when we simply talk about keeping our expenditures as we call them,

which are nothing more than disbursements; in line with our revenues. It is true we can measure to some extent the economic impact of the budget by the inflow and outflow of cash between the Government and the public. However, there is other economic impact, I believe, which we can not overlook, which occurs when the Government goes out and initiates orders to do a job. No cash has passed hands between the public and the Government. But certain economic activity has been started. Someone has built a plant with his own cash, perhaps, hiring personnel to get it done. I do not think we should always place the stress upon the disbursements which are made by the Government. Because they are the last thing that takes place in the fiscal process. That is simply liquidating an obligation which has been incurred somewhere along the line.

It is as automatic as day and night, almost. You have to meet them once you have gotten your fiscal resources committed in some way so if we are talking about controlling fiscal policies by controlling the amount of expenditures, I do not think we have taken in the whole picture.

Representative MILLS. That is an integral part.

Mr. HELD. It is an integral part, but I think what we should be controlling is the amount of fiscal resources that are being applied at that point. Perhaps this involves an accrual concept.

Mr. WEIDENBAUM. I do not think we have to be without hope. The suggestion that has been made earlier would help a good deal. That is if Congress would have an estimate each year of the pattern of expenditures over the next several years, within limits, certainly not the nearest 10th of a billion dollars but within broad limits, the Congress could see where a series of budgets or a given budget was heading.

Representative MILLS. If it did not like it, it could go back to re-evaluate budgets to get within the level it wanted to.

Mr. WEIDENBAUM. Precisely.

Mr. COLM. Mr. Chairman, I would like to make a brief remark with respect to a question you asked a couple of minutes before. You asked whether we feel we are unanimous in the statement that under present Government and budget procedures we are incurring a great deal of waste—

Representative MILLS. Pardon me. Let me put it this way: procedures that we have in existence lead to wasteful use of resources, excessive use of resources, and things of that sort.

Mr. COLM. I agree with the statement that improved budget procedures would reduce the waste, but I like to make the statement also about one other aspect.

We are concerned not only with waste, but also with appropriate implementation of Government programs. We want the Government to perform the services which must be performed, particularly with respect to economic growth and stability.

I also feel that under existing procedures that existing procedures also may have the effect that certain programs are undernourished; that there may be an imbalance; that in some programs we may find waste, and in other programs we may find too little.

I thought we should look at both sides. This is always—the Government sometimes does too much and sometimes it does too little in some respects.

Representative MILLS. Any further observations by members of the panel? If not, we have certainly enjoyed reading your papers in the compendium and appreciate your being with us this morning to add to the information you have already given us.

We have enjoyed seeing all of you.

The committee is adjourned until 2 o'clock.

(The answers to the questions posed by the chairman on p. 321 follow:)

RESPONSE OF GEORGE Y. HARVEY TO QUESTIONS POSED BY REPRESENTATIVE MILLS

Speaking generally, the budget document does not and, on account of the detail involved, cannot include all of the information referred to in this series of questions. There are two limiting factors:

(1) Volume: The amount of minutiae involved would require several times the number of pages in the present budget document. There are already complaints that the document is so large as to be unwieldy.

(2) Character of the material: In order to secure necessary data with respect to a particular program or activity it is necessary to devise statements and to develop types of reports peculiarly suited to each activity if the true picture is to be presented. It is necessary, obviously, to maintain a high degree of uniformity in the statements included in the budget document if it is to be readily understood. It does not appear practicable to go much below the present level of detail with respect to individual activities if necessary uniformity is maintained and if budget review agencies are to be free to secure the specialized kind of data needed for their purposes.

Question 4 relates to one of the most important and most difficult recurring problems in budgeting. The question of overlapping of activities as between Government agencies constantly arises and probably there is no final answer to it. There are always political considerations involved in any such controversy as well as budgeting and financial considerations. The Bureau of the Budget and the Committees on Appropriations have devoted a great deal of time and attention over the years to this very problem. Sometimes they have found answers and sometimes they haven't. Oftentimes there are basic laws granting overlapping responsibilities and conflicting authorities to separate agencies, each of which is jealous of its own and has important support making the solution extremely difficult—if not impossible. There is room for improvement in the budget process in this field and there always will be, but it is not one of format. The question most often is one of management and aggressive administrative action rather than one of financial allocation or fiscal reporting. Fiscal reporting can best be used in this area to point up the problem and flush the issue.

As to question 7 it would seem that detailed study of the economic impact data now supplied in the budget and its relationship to the economic report should develop a basis for far more significant information than is currently supplied. Present difficulty seems to grow out of the effort to relate long range economic impact data too directly to the current working budget with considerable loss in realism to both.

RESPONSE OF MURRAY L. WEIDENBAUM TO QUESTIONS POSED BY REPRESENTATIVE MILLS

1. Does the budget contain adequate information for appraising the substance of the programs for which it applies dollar measures? Is the budget document itself the appropriate means in which to convey such information, or should we depend on the work of the appropriations committees, and additional executive statements for explanations of what is in these programs?

The Federal budget document for the fiscal year 1958 contains 1,165 oversized pages plus an appendix detailing personal services. Despite its massive content, the budget does not fully meet the needs of the various groups which are concerned with the budget.

Because of the existence of these various "publics," each of which has different needs and requirements for budgetary information, it is highly improbable that any single document would suffice. The following suggestions are offered:

(a) A group of formal budget documents should be prepared, so that each should more closely meet the needs of its "public" than the present single document can.

(b) To meet the needs of the appropriations committees, a "working budget" should be prepared, containing detailed data by appropriation account and activity. This document would be a descendent of the current "committee print," which reprints the detail of the existing budget document for the appropriations subcommittees.

Unlike the committee print, this "working budget" would be prepared as a part of the budget process. Consultations among the Appropriations Committees, the Bureau of the Budget, and agency budget officers would be helpful in determining the type of materials to be included. The existence of such a "working budget" could preclude the need for incorporating much detail in a "general budget."

Specific questions would still be raised by the Appropriations Committees and additional data supplied separately. Certainly, the members of these committees should be encouraged to go beyond the details of customary budget submissions and they should not be hampered by having to review too great an amount of material on relatively minor items.

(c) To meet the needs of other Members of the Congress, business analysts, and students of public finance and government, a "general budget" should be prepared. Such a document would contain the President's budget message and would focus on the broad functions and programs of the Government and on the major questions relating to the budget.

Unlike the existing budget document, this "general budget" should not contain such details as appropriation language; detailed accounting reconciliations, special schedules of motor vehicle and aircraft purchase, or an appendix on personal services. On the other hand, increased emphasis could be placed on the various analytical studies of the budget program, now relegated to the rear of the budget. This latter type of information would be of value in appraising the substance of Federal programs.

(d) To meet the needs of the general press and the public as a whole, a much shorter "popular budget" should be prepared. The Budget in Brief, issued by the Bureau of the Budget shortly after the appearance of the budget, may already meet this need.

Because each of the three "budgets" suggested above would be designed for a different public, it would not be necessary to prepare three entirely different documents. On the contrary, during the executive branch budget-making process attention should be given to the preparation of a common set of materials. Some of these materials might appear in all three "budgets" and some in only 1 or 2. For example, the "popular budget" might be built around the budget message. The program and performance statements might be included in the "working" as well as the "general budget." Certain summary tabulations might be designed for incorporation in all three documents.

2. Does the budget provide an adequate statement of the objectives of the various expenditures and appropriation requests it presents? Can we tell, in other words, what purpose these expenditures are to serve except in the most general terms, without seeking additional explanatory statements?

The budget document, as currently prepared, does attempt to indicate the purpose and objectives of Government programs. The budget message, the program and performance statements for each appropriation account, and the special analyses are all designed to this end.

The suggested "general budget" (see reply to question 1) might improve the adequacy of budgetary presentation. However, much of the concentration on detail and comparative minutia may flow from the requirements imposed by the members and staff of the Appropriations Committees. The solution may be in shifting their emphasis from the details of administrative performance, which are also reviewed by the Government Operations Committees, to the more fundamental questions relating to the scope, purpose, and adequacy of governmental operations.

3. Does the budget afford any evaluation of how effective the activities it proposes, where these are continuations from prior years, were in the past in achieving the purposes of these activities?

In general, the budget does not evaluate the effectiveness of past performance and should not be expected to. Essentially, the function of the budget is to present the President's fiscal program for the coming year. It is unlikely that such a document affords an adequate vehicle for critical self-evaluation.

A report in the budget that a given program was ineffective could be an attempt to solicit an increase in funds; however, it could be received as a justification for eliminating the program. It is hardly likely that such evaluations by the executive branch itself would be objective or, in the absence of standards for assessing effectiveness, even helpful.

Congressional committees or the General Accounting Office could be charged with conducting a review of governmental effectiveness. However, I am not too hopeful that any such review would meet the purpose. These agencies are not currently staffed with the type of personnel to carry out such broad, analytical functions. As would be expected, these agencies are staffed to meet their current responsibilities, which are obviously important but focused at a different level.

It would be essential that any group conducting an evaluation of the effectiveness of government programs be given usable standards and criteria to apply. The preparation of such standards and criteria would be an extremely difficult task and would involve considerable subjective analysis.

4. Does the budget provide an adequate picture of how the myriad activities of the Federal Government are related to each other? Does it adequately bring together, on a program basis, these various activities?

The budget does attempt to relate the various governmental activities on a program basis. The major efforts are as follows:

(a) The President's budget message, which is the policy statement in the budget document, is presented on a functional basis. That is, the discussion is not presented agency-by-agency, but according to the broad functions of Government—national security, agriculture, natural resources, veterans' benefits, commerce, welfare, etc.

(b) The summary tables of the budget document contain data on a functional basis, in addition to the information for specific agencies.

(c) Part IV of the budget document is devoted to special analyses which bring together the various Government programs in such areas as: (1) investment; (2) public works; (3) credit; (4) aid to State and local governments; (5) research and development; and (6) statistics. Other studies analyze the budget as a whole, particularly from the viewpoint of economic analysis.

The "general budget" suggested above might properly emphasize this type of information to a greater extent than at present. Limitations to this approach include the availability of staff and funds and the degree of interest of and support by administration officials and Members of the Congress most concerned with fiscal matters.

In a more basic way, major improvements in reviewing Government operations by function or major program depend on rationalization of the organizational structure of the Federal Government. For example, the transfer of a number of bureaus concerned with transportation to the Department of Commerce undoubtedly has aided in affording a better method of viewing together the various Government programs in that field.

5. Does the budget provide any information about longer-range prospects for these various programs in terms of their costs and their objectives?

In general, the budget does not provide information on the long-range prospects of the program presented. One attempt at indicating longer-term costs is contained in the special analysis of public works. A schedule in this analysis shows the costs beyond the budget year which are estimated to be incurred in order to complete the projects in the budget (p. 1115 of the 1958 budget).

It would be extremely helpful if such longer-term estimates were prepared for other budget programs, such as veterans' services and benefits and public-assistance grants to States. However, many governmental activities are not related to such specific or quantifiable objectives and the estimates would be of dubious validity.

Also, there may be domestic or international reasons for the administration not wishing to commit itself on the overall budget level or on national security or other strategic programs over an extended period of time.

Nevertheless, a first approximation might be useful. Undoubtedly, certain assumptions as to economic developments and Government policy would have to be made prior to preparing estimates for specific departments or functions of Government.

Particularly in the case of proposed new legislation, it would be helpful to know where a new program would lead to in terms of expenditures over an extended period of time.

6. Does the budget adequately note any consequences of these programs which may not be immediate objectives of the programs?

It is my impression that the budget document attempts to present the type of information which will explain the reasons for the level of the appropriation request made. Hence, favorable indirect consequences of the programs often are noted. It is unlikely that unfavorable consequences would be brought up.

It should be noted that the primary purpose of the Federal budget is not to serve as a research tool on Government activities but to present to serve as a research tool on Government activities but to present the President's fiscal program in such a manner that it gains approval. Undoubtedly, the budget provides a basic source of research data, but such material is of necessity limited to the type which will contribute to the document's basic purpose.

To some extent, the Economic Report of the President discusses such consequences of the budget and of major governmental programs as their relationship to economic developments. The report itself, or supplements thereto, might devote increasing attention to this area.

7. Does the budget adequately describe the likely effects of the activities of the Federal Government on the level of economic activity, employment, prices, and opportunities for and limitations upon investment and other growth-generating activities in the private and State and local governments sectors of the economy? Does it adequately suggest the types of adjustments which may have to be made in these sectors if our basic, continuing objectives of steady growth are to be achieved?

The budget document often contains references to the economic impact of Government spending and to the fact that economic factors were considered in the course of preparing the budget. A cursory examination of the 1958 budget reveals the following instances.

GENERAL BUDGET POLICY

"In making plans for the coming year, I have been guided by the following national objectives * * *

"3. A healthy and growing economy with prosperity widely shared;

"4. Enhancement of individual opportunity and the well-being of all our people;

"5. Wise conservation, development, and use of our great national resources * * *

"8. Increasing international trade and investment essential to the growth of the economies of the United States and the rest of the free world" (p. M5).

* * * * *

"At a time like the present when the economy is operating at a very high rate and is subject to inflationary pressures, Government clearly should seek to alleviate rather than aggravate those pressures. Government can do its part. But business and labor leadership must earnestly cooperate—or what Government can do in a free society at a time like this will not prevent inflation.

"For the Government to do its part in the coming year, taxes must be retained at the present rates so that receipts will exceed budget expenditures and the public debt can be further reduced. The prospective budget surplus in the fiscal year 1958 will reinforce the restraining effect of present credit and monetary policies. The present situation also requires that less pressing expenditure programs must be held back and some meritorious proposals postponed" (p. M6).

* * * * *

TAX POLICY

"Reductions in tax rates would give relief to taxpayers and would also release funds for the activity and investment necessary for sustained economic growth through private initiative. However, the reduction of tax rates must give way

under present circumstances to the cost of meeting our urgent national responsibilities" (p. M9).

* * * * *

"The receipts estimates reflect the high levels of business activity, personal income, and corporate profits attained in the calendar year 1956. They assume continued gains in the level of personal income and a moderate increase in corporate profits" (p. 1068).

EXPENDITURE POLICY

"* * * in view of the present active competition for labor, materials, and equipment, I am not recommending some other desirable construction projects, and I have asked the head of each Federal agency to watch closely the timing of construction and to postpone work which can be appropriately put off until a later date" (p. M6-M7).

* * * * *

"The agriculture programs of the Federal Government are designed * * * to foster long-run improvements and adjustments in the Nation's farm economy" (p. M46).

* * * * *

"The (Commodity Credit) Corporation's budget estimates for 1957 and 1958 are based on the general assumptions (a) that employment, production, and national income will rise moderately both in 1957 and 1958 from the 1956 level; (b) that prices will change little, on the average, from the present level * * *" (p. 387).

The above excerpts from the 1958 budget demonstrate that economic considerations are taken into account in the budget process. However, it would seem that the Economic Report would be a more appropriate vehicle than the budget document for detailed analysis of the economic impact of governmental operations and for the presentation of the economic policy of the administration.

The Economic Report could more properly and effectively indicate the current and likely future economic environment in which the Government programs would be carried on and would provide a more satisfactory framework for analyzing the type of adjustments indicated in the question.

One procedural improvement could be instituted quite readily. The budget document does not contain the specific economic assumptions on which the estimates are based. However, the Secretary of the Treasury usually releases those assumptions which relate to the receipt estimates at the time the budget is transmitted. It would be helpful if the budget document contained the highlights of these economic assumptions together with some explanatory text.

8. Finally, does the budget set forth any plans for savings in use of resources while carrying out the functions it proposes?

The preparation of the Federal budget usually entails substantially reducing the estimates of fund requirements presented by a number of individual units. To my knowledge, every budget is presented to the Congress as a minimum estimate of the needs to be met and of the resources required.

This is a nonpartisan phenomenon. Sections on management improvement, citing specific savings in cost and uses of resources and plans to do more along those lines, were contained in the Eisenhower as well as in the Truman budgets. I would not place too great a reliance on such efforts. They are desirable, but rarely significant in terms of their effect on overall expenditure levels.

The crucial determinants of the use of resources by the Federal Government are made through decisions as to which basic functions are to be performed and at which levels they are to be performed.

RESPONSE OF WALTER G. HELD TO QUESTIONS POSED BY REPRESENTATIVE MILLS

1. Does the budget contain adequate information for appraising the substance of the programs for which it applies dollar measures?

Answer: Although the budget contains a considerable amount of information which can be used in appraising the substance of programs, it needs major changes and improvement. These can be achieved by changing the organization and format to give more stress to programs, activities, and functions rather than

organizational elements. Similarly, it should provide additional information in several areas which would enhance understanding of what the Congress and the public may expect to receive for the dollars requested.

The present document, although in a continual state of improvement since the adoption of a performance budget concept by the National Government, still reflects too much an accounting and budget technician approach.

2. Is the budget document itself the appropriate means in which to convey such information, or should we depend on the work of the appropriations committees, and additional executive statements for explanations of what is in these programs?

Answer: The budget document is an appropriate means by which to convey a budget plan of activities to Congressmen, provided it is designed to meet the requirements of the congressional "public" which must use it. Since the average Congressman is not an accountant or budget technician, and is primarily concerned with what functions or activities will be carried on under proposed budget programs and the cost of these, the budget should be designed to meet the needs of that general group.

In addition, however, more detailed data, premised upon different bases of analysis, should be presented in separate appendixes to supply the more detailed requirements of the Appropriations Committees and others. If these separately published appendixes are well planned and developed, they could eliminate much of the voluminous and unnecessary paperwork which is provided in the form of additional executive statements. Certainly there is no lack of information in terms of volume, for each agency spends several months in developing and presenting to Congress detailed analyses, supporting statements, and justifications.

3. Does the budget provide an adequate statement of the objectives of the various expenditures and appropriation requests it presents? Can we tell, in other words, what purpose these expenditures are to serve, except in the most general terms?

Answer: The degree to which this is accomplished varies among agencies. However, in overall terms the budget does not provide an adequate statement of the objectives of various expenditure and appropriation requests. It is recommended that a higher degree of performance budget format, emphasizing functions, activities, and projects be developed. The budget structure contained in the Federal Budget in Brief provides an excellent starting point from which to revamp the present big budget into a much more meaningful document.

4. Does the budget afford any evaluation of how effective the activities it proposes (where these are continuations from prior years), were in the past in achieving the purposes of these activities?

Answer: In some areas the budget does give a general evaluation of how effective the activities it proposes have been in the past. However, in most cases for one to achieve this a relatively high understanding of the technical side of the budget is required. Generally speaking, such information is not as readily available as is desirable.

Of course, the provision of such data must depend upon the accomplishment of adequate performance-evaluation systems, work standards, cost accounting where applicable, and similar techniques which can yield such an evaluation readily. It must be stressed, however, that there are many areas in Federal activities where quantitative measurement of performance is not possible, and thus the effectiveness of the aforementioned techniques is limited; e. g., research and development.

5. Does the budget provide an adequate picture of how the myriad activities of the Federal Government are related to each other? Does it adequately bring together, on a program basis, these various activities?

Answer: The present budget does not provide an adequate picture of how the myriad activities of the Federal Government are related to each other. This is a principal disadvantage in using the present budget and appropriation structure. Further reorientation of the budget structure toward a performance basis as suggested above would eliminate this activity.

6. Does the budget provide any information about longer range prospects for these various programs in terms of their costs and their objectives?

Answer: The budget does not provide adequate information about long-range prospects. Some narrative statements of program and performance in the budget give general indications of future dollar implications of a program. However, there is no systematic and consistent presentation made of long-range prospects. This should be made a central part of the budget presentation and should show estimated costs in relation to objectives.

7. Does the budget adequately note any consequences of these programs which may not be the immediate objectives of the programs?

Answer: No, although theoretically such information under the present format could be woven into the narrative statements of program and performance. This is not done to any appreciable degree. It may be in any event that such a statement would serve little purpose since it would be a natural tendency for a submitting agency to indicate that all future consequences would be good.

8. Does the budget adequately describe the likely effects of the activities of the Federal Government on the level of economic activity, employment, prices, and opportunities for and limitations upon investment and other growth-generating activities in the private and State and local government sectors of the economy? Does it adequately suggest the types of adjustments which may have to be made in these sectors if our basic, continuing objectives of steady growth are to be achieved?

Answer: Generally speaking, the answer to this question must also be "No." However, the President can include such information in his budget message. He has done so on past occasions. Under present Federal law, however, with the requirement that the President submit an annual economic report, it may well be that such information should be included in it rather than in the budget message. Under these circumstances, perhaps the budget should include only a general economic analysis.

9. Finally, does the budget set forth any plans for savings in the use of resources while carrying out the functions it proposes?

Answer: This question cannot be answered categorically. The President has on several occasions indicated the management improvements which have resulted in savings of resources in carrying out functions. Generally speaking, however, any plans for saving manpower or materials in proposed budget functions are lacking as a part of the regular budget submission to Congress.

RESPONSE OF GERHARD COLM TO QUESTIONS POSED BY REPRESENTATIVE MILLS

Question 1. In recent years the budget message and the budget document itself have presented a growing amount of textual explanation which has been designed to help in the appraisal of programs proposed by the President. Nevertheless, I do not believe that the information now provided in the budget is fully adequate for the purposes of congressional action and public information. What is now offered are general explanations and very detailed data. It would serve the purpose of Congress if the explanation concerning objectives of programs would be made more specific and include particularly such items as: expected benefits; estimated costs; estimated lifetime of the program and scheduled expenditures for a number of years; possible revenues expected from services rendered (e. g. fees); and a breakdown of project expenditures by an economic object classification. Inclusion of this information in the budget would be desirable for major programs; for minor programs it should be supplied to the appropriation committees.

Question 2. My answer to question 1 also covers question 2. The budget message and explanatory text provide statements of objectives of expenditure and appropriation requests. These statements however, are usually too general to permit an adequate appraisal by the Congress.

Question 3. The budget at present does not provide an evaluation of the effectiveness of past activities in achieving the purposes of these programs. I doubt that such an evaluation concerning the past performance of Government programs could be adequately presented in the budget document. Rather each department or agency might submit an annual performance report to the President which he, in turn would present to the Congress. These performance reports might be combined with the statutory annual reports currently required of the several agencies.

Question 4. The budget's summary table by functions and some of the special analyses published in the budget document go part way toward presenting the interrelations among various Government activities. In addition, the President in transmitting to Congress the performance reports of the various departments and agencies (see question 3) might present a summary report for the executive branch as a whole emphasizing particularly programs which cross departmental and agency lines.

Question 5. A beginning has been made with respect to some public-work programs to present in the budget information about total costs over the years until completion. (For example, the statement on programs and financing in the Bureau of Reclamation see, the Budget for the fiscal year 1958, p. 737 ff.) However, more detailed statements are desirable about total costs of various programs and their estimated distribution over a number of years.

Question 6. The budget document does not generally consider the likely consequences of various programs apart from the immediate objectives.

Question 7. The budget does not describe the likely effects of proposed Federal Government activities on the level of economic activity and other economic factors. In the years prior to the adoption of the Employment Act the budget messages dealt in a general way and by major programs with the economic effects of activities of the Federal Government. In recent years such an analysis of economic effects has been curtailed presumably because it was believed that the President's economic report would deal primarily with the economic effects of Government activities.

Question 8. It is presumed that the President's request for appropriations are based on an estimate of expenditures for various programs which will be needed if the programs are executed in the most economical manner. There have been instances in which the President specifically recommended rescinding of past appropriations. There has also been a case in which the President specifically proposed a reduction in expenditures which he himself transmitted to Congress. (See Budget for the fiscal year 1956, p. M28-31.)

It might well be considered that with respect to the past the performance report (see question 3 above) should include a statement comparing the original cost estimate with actual expenditures in order to show if more or less funds were actually required.

(Whereupon, at 12:30 p. m., the subcommittee recessed, to reconvene at 2 p. m., the same day.)

AFTERNOON SESSION

The hearing was resumed at 2 p. m., pursuant to the recess.

Representative MILLS. The subcommittee will come to order, please.

This afternoon we begin consideration of special Federal spending programs in connection with our study of Federal expenditure policy for economic growth and stability.

Quite naturally, we turn first to our national security programs. It is perfectly clear to all of us that these programs must be devised on the basis of our defense requirements as set forth by those to whom we entrust responsibility for measuring our needs and capabilities in this area but, because of its size and its extremely diverse impact on the American economy, we should seek the clearest possible knowledge of the impact of our defense preparedness on the growth and stability of the economy. Economic growth may have significant consequences in determining our defense capabilities. This interrelationship should be examined carefully. I believe that the papers in the compendium on this subject represent a significant contribution to this understanding.

Each panelist will be given 5 minutes in which to summarize this paper. We will proceed in order in which the papers appear in the compendium, and we will hear from each panelist without interruption. Upon completion of the opening statements, the subcommittee will question the panelists for the balance of the session. I hope that this part of the session can be informal and that all members of the panel will participate, commenting on the papers presented by other panelists and on the subcommittee members' questions.

We will hear first from Prof. Arthur E. Burns, dean of the graduate council of the George Washington University.

Dean Burns.

**STATEMENT OF ARTHUR E. BURNS, PROFESSOR, DEPARTMENT OF
ECONOMICS, GEORGE WASHINGTON UNIVERSITY**

Mr. BURNS. Mr. Chairman, I should like to add rather briefly to the statement that appears in the compendium as follows: Recent developments in Soviet technology will probably cause the United States national security expenditures to increase and remain at higher levels indefinitely. These expenditures must not be allowed to retard the long-run growth of this country's productive capacity. National security depends heavily on economic expansion, and the future increase in the labor force requires substantial capital growth to provide jobs in the future.

Unless national security expenditures are properly financed, they could retard future economic growth. Our tax structure needs a close examination with this possibility in mind. Taxes at present are largely the result of war emergency, social-reform programs, and simplicity of collection. The requirements of economic growth have played a minor role in tax policy, but large-scale, long-term national-security expenditures now make the requirements of growth a major factor in shaping tax policy.

We should see to it that the issue is not defense versus growth. We need both. However, to paraphrase Adam Smith, "Defense is more important than corpulence."

Another point is suggested by long-term, high-level national security expenditures. Efforts should be made to cut nonmilitary Federal expenditures by shifting some Federal functions to the States. There are many governmental functions now shared by the Federal Government and the States. In terms of administrative capacity, the States and localities can handle many or most of these shared responsibilities. Their financial capacity poses problems, particularly in the low-income States. But a shift nonetheless is called for, as a means of affording fiscal relief to the Federal Government in a period of large-scale defense expenditures.

Representative MILLS. Thank you.

Our next panelist is Mrs. Betty G. Fishman, lecturer in economics, West Virginia University.

Mrs. Fishman.

**STATEMENT OF BETTY G. FISHMAN, LECTURER IN ECONOMICS,
WEST VIRGINIA UNIVERSITY**

Mrs. FISHMAN. It is a matter of common knowledge that Federal expenditures for national security purposes have been much larger since World War II than they were before the war. It is not generally realized, however, that if the entire postwar period is considered, it appears that national security expenditures are continuing to increase, rather than declining or remaining stable.

In 1956 Federal expenditures for national security totaled \$42.4 billion, accounting for 89.8 percent of total Federal purchases of goods and services and 10.2 percent of our gross national product. Despite much talk earlier this year about reductions, present indications are that total Federal expenditures for national security during 1957 may reach a new peacetime high, and this high, in turn, will probably be surpassed in 1958.

Most of the increase in national-security expenditures is attributable to changes in our international relations and to changes in modern methods of warfare, rather than to any changes in our economy or our economic policies. It is obvious, however, that such large expenditures for national-security purposes must themselves have some effect on our economy and on economic policy.

I should like to summarize briefly our conclusions regarding the economic effects of our postwar expenditures for national security:

1. The increase in national-security expenditures has not been accompanied by an increase in our Federal debt. In other words, it has been financed by taxes rather than by borrowing.

2. The increase in national-security expenditures has not been accompanied by a reduction in our civilian standard of living. On the contrary, the civilian standard of living in this country has increased and seems likely to rise still further in the years ahead, even if there is no reduction in our national-security expenditures.

But if our national-security expenditures during the postwar period had been smaller, and if we had, nevertheless, had full or nearly full employment of our economic resources, our standard of living during this period would have been higher than it actually has been. For if some of the economic resources which were used to produce goods and services for national security had, instead, been used to produce consumer goods, the total supply of goods available to civilian consumers would have been larger than it actually was.

3. The effect of national-security expenditures on the general level of economic activity during the postwar period has varied. For the period as a whole, the effect has undoubtedly been stimulating. But the direction of change in the magnitude of national-security expenditures, provided the change be large enough, is more significant in this connection than the actual magnitude of the expenditures. Thus, the reduction in national-security expenditures when hostilities ended in Korea contributed to the dip in general economic activity which we experienced in the latter part of 1953 and the early months of 1954.

4. Other factors—the timing of national-security expenditures, the general level of economic activity, the underlying strength or weakness of civilian demand for goods and services, the manner in which national-security expenditures are financed, and the particular types of goods and services which the Federal Government is purchasing for national-security purposes—must also be considered in assessing the economic effect of national-security expenditures.

There have been times during the postwar period when national-security expenditures have exerted a strain, rather than a beneficent stimulating effect, on our economy and have probably contributed more to the upward movement of prices than to an increase in production. There have been other times, such as the recent past, when shifts in procurement policies from one type of weapon or facility to another have had significant effects on our economy irrespective of any change in the magnitude of expenditures.

5. If we had enjoyed the same level of economic activity and had not made such large expenditures for national security purposes, the rate of economic growth in this country during the postwar period would have been larger than it has actually been. For in that case at least part of the economic resources which were devoted to the production of military goods and services or to the creation of facilities

for the production of military goods and services, would instead have been devoted to the production of capital goods, or to other uses which in turn would enhance our capacity to produce economic goods and services for civilian consumption.

6. National security expenditures by virtue of the fact that they are now so large and that they vary in response to forces which are independent of economic conditions and policies, necessarily exercise a limiting influence on the power of the Federal Government to use expenditure policy for the purpose of promoting full employment or achieving economic stability.

In view of this fact, it is important that economists both in and out of the Government service explore the possibility of developing other means of implementing the policies set forth in the Employment Act of 1946.

Representative MILLS. Thank you, Mrs. Fishman.

Our next panelist is Leo Fishman, professor of economics and finance, West Virginia University.

Professor Fishman, you are recognized.

STATEMENT OF LEO FISHMAN, PROFESSOR OF ECONOMICS AND FINANCE, WEST VIRGINIA UNIVERSITY

MR. FISHMAN. There are three points I should like to make. The first has to do with the probable economic consequences of a sudden decrease in national security expenditures. The second has to do more specifically with the current situation. My third point concerns the statements made by some of the other participants in this panel discussion with respect to the indirect benefits our economy has enjoyed in the form of scientific and technical advances resulting from national security programs.

1. If a sudden large decrease in national security expenditures were to occur as a result of successful disarmament negotiations coupled with a general lessening of international tensions, it would probably lead to substantial reduction in the overall level of economic activity, and might very well have more far-reaching effects than a reduction of similar magnitude in the level of private investment expenditures.

Although it does not appear likely that this situation will materialize in the near future, a reduction in our national security expenditures resulting from a lessening of international tensions, would be highly desirable for noneconomic as well as economic reasons. We should, therefore, work toward this goal, and at the same time be prepared to adopt measures suitable to cope with any undesirable economic repercussions should they occur.

Expenditures on such things as public roads, schools, hospitals, and so forth, might well be used to fill the gap created by a sharp decrease in national-security expenditures. Such expenditures are similar to national-security expenditures in that they do not themselves increase the sum total of either consumer goods, or capital goods which in turn are used to increase the sum total of consumer goods.

But expenditures of this type, unlike national-security expenditures, may be deliberately varied by our economic policymakers in response to variations in other segments of our economy. Moreover, assuming a lessening of international tension, it is clear that

expenditures of this type will yield far more desirable results than national-security expenditures, in the long run as well as the short run, and from a noneconomic, as well as an economic, point of view.

2. For the past few months there has been much talk among businessmen as well as economists about the possibility of a recession in the very near future. Some feel that it is already underway and point to such facts as the excess capacity in the steel industry, the decline in industrial output and the rise in unemployment, to support this view.

This concern is not without foundation. In these circumstances, a substantial cut in security expenditures of the type which was contemplated earlier this year could only serve to strengthen the deflationary forces at work.

More recent developments, notably the launching of Sputnik I and Sputnik II, make it seem highly improbable that any overall cut in national-security expenditures will be made. Indeed, it is far more likely that national-security expenditures will increase instead. Should this prove to be the case, our policymakers will not have to fear that the increase in national-security expenditures will place a heavy burden on an economy already operating at capacity. On the contrary, an increase in national-security expenditures at this time will have a salutary economic effect tending to weaken the deflationary tendencies presently operating—perhaps halting or even reversing them.

While in one sense this constitutes a fortunate combination of circumstances, it still remains true that from a purely economic point of view, national-security expenditures are nonproductive. The same short-run results could be achieved just as efficaciously by increasing other types of Federal expenditures which would have more beneficent long-run effects on the national economy.

In this connection, it is worth noting that any increase in Federal expenditures can have a stimulating effect on the economy, even if it is financed by taxes, rather than by borrowing. Nevertheless, it is true that the stimulating effect of the increase will be more moderate when it is accompanied by a balanced budget than when it involves an increase in the public debt.

3. Several other participants in this panel discussion have remarked upon the fact that national-security expenditures indirectly do yield some desirable economic results. Attention has been called specifically to technological advances in the fields of synthetics and food processing, which undoubtedly benefit the civilian population, and also to scientific advances such as the development of Asian flu vaccine.

Developments of this type, however, do not prove that national-security expenditures make a net contribution to economic development. Consider how much more our civilian economy might have profited if all, or even a substantial portion of the economic resources, talent and effort devoted to the national-security program, had instead been devoted to constructive civilian purpose.

There is no reason to suppose that the various scientific and technical developments useful in our civilian economy, which have been made in recent years under the aegis of the national-security program could not have been achieved under nonmilitary auspices.

In fact, it seems reasonable to suppose that with a decrease in national-security expenditures resulting from a lessening of interna-

tional tension, and accompanied by an increase in expenditures and effort devoted to constructive peacetime purposes, scientific and technological advances of benefit to the civilian population could be made on a broader front and at a more rapid rate than has been the case in recent years.

Representative MILLS. Thank you, Professor Fishman.

Our next panelist is Prof. George H. Hildebrand, acting director, Institute of Industrial Relations, University of California, Los Angeles, with Prof. Norman V. Breckner, department of economics, University of California, Los Angeles.

Mr. HILDEBRAND. I shall read this statement on behalf of Professor Breckner and myself.

STATEMENT OF GEORGE H. HILDEBRAND, ACTING DIRECTOR, INSTITUTE OF INDUSTRIAL RELATIONS, UNIVERSITY OF CALIFORNIA, LOS ANGELES

Mr. HILDEBRAND. Between 1939 and 1956 the American people spent \$665 billion on national security. In 1939 security spending amounted to only \$1.3 billion, a per capita cost of \$9.92. By 1956 it had risen to \$42.4 billion and cost each citizen \$252.12. Ignoring the intervening extremes, aggregate security expenditure has been rising at a compound growth rate of 20 percent a year. Currently, these outlays claim 10 percent of gross national product and closely approach the share of output devoted to new plant and equipment for private industry.

Two main forces govern the rate of security spending: International tensions and the state of the military art. In real terms the level of such spending is thus independent of movements in private investment and consumption demand. Hence, a drop in general business does not induce a parallel drop in output for national security, nor does an expansion in business call forth a matching increase in security requirements.

As a major part of total Government demand, security spending thus helps to reduce those swings in total production and employment that originate initially from fluctuations in private investment and that induce parallel movements in private consumption. In this respect security spending contributes to stability in production and employment. However, it also undergoes unexpected and independent shifts of its own, reflecting major changes in international tensions or in weapons technology. When it does it can either accelerate or offset a general contraction or expansion in business, depending upon the case. In this respect security spending can be either stabilizing or unstabilizing.

Between 1939 and 1957 the American economy has undergone 4 major expansions (1939-45, 1946-48, 1950-53, and 1955-57) and 3 distinct contractions (1945-46, 1949-50, and 1953-54). All three declines were brief and shallow. For 15 years we have enjoyed boom conditions. What has been the connection between security spending and these events?

Simple cause-and-effect reasoning is notoriously dangerous in these matters, because there is no definitive way to isolate the influence of security expenditure from the effects of forces stemming from private

demand. However, there is reasonable ground for the following judgments. First, the sharp upturns in security expenditure during 1940-44 and 1950-53 were decisive in invoking general expansion, although the timing of the respective turning points is not close.

Second, the business contractions of 1945-46 and 1953-54 were clearly set off by rapid drops in security spending, while the two sets of turning points were identical in occurrence. Third, the parallel movements of declines in security spending and in total business were relatively brief both in 1945-46—9 months—and in 1953-54—6 months, after which business turned upward while security expenditure continued to drop. The reason was that consumption and investment showed great underlying strength, sufficient to spur recovery despite a continuing contraction in security expenditure. Finally, the continuing high levels of security and total Government demand throughout the period put a floor under economic activity, helping strongly to keep private spending buoyant and thus to prevent the possibility of a major depression.

One of the major issues surrounding security expenditure is whether it simply displaces private investment and consumption, reducing their long-term volume, or instead supplements them, thereby sustaining a higher rate of long-term overall growth. The answers turn mainly on one's view of the strength or weakness and the sustainability of private investment in the recent past and for the future. There is no final resolution to this speculative issue. Our economic history shows periods of well-sustained growth without depressions. For the years after 1939, however, there are three main reasons for concluding that the rise of security expenditure made possible a higher realized rate of growth and so for the most part supplemented rather than displaced private investment and consumption.

First, the onset of rapidly increasing security outlays from late 1940 greatly accelerated the weak recovery then underway, carrying production quickly upward to sustained levels of full employment. Second, no depression has occurred for the past 15 years, while the three downturns that did take place were remarkably brief and shallow, reflecting in good part the supporting role of security outlays and Government demand generally.

Finally, research-and-development expenditures by the Defense Department and agencies for development of atomic energy, which on very conservative estimate total \$17.5 billion for all fiscal years from 1940 through 1956, have brought forth major developments in technology, having great practical importance for private enterprise. Already these discoveries have promoted increased investment and consumption, contributing further to the realized rate of economic growth in recent years.

The technological advances which had their inception in defense activities have centered in atomic energy, radioactive substances, electronics, automation, and synthetic chemicals. They are stimulating private investment in four major ways: Creation of new industries—advanced electronics; development of old industries—computers, instruments, chemicals; production economies for other industries—new equipment and processes; and relocation of industries—changes in resources and markets. Consumption is also drawing benefits, with appearance of new or improved products and lower prices.

It should not be inferred that theoretical research or private industry have made no collateral contributions to this technological revolution, or that it could have been brought about only through military spending. However, it is clear that military spending was decisive for setting the process off.

Without some form of Government aid, some of the discoveries would never have found practical use, because the risks and costs were so great.

Viewed as a fiscal device for consciously promoting short-term stability and long-term growth, security spending has serious limitations. First, it is a discretionary type of public spending and not an automatic stabilizer such as the income tax or unemployment compensation. It does not mechanically increase or decrease to offset declines or expansions in total economic activity. If deliberately used as a stabilizer, then it would require advance predictive decisions about the future course of production and employment. Any discretionary Government action here involves the prediction problem, but security spending is further complicated because it must serve America's strategic requirements. If it were to be cut to check inflation, this necessarily means the sacrifice of defense requirements independently found necessary on strategic grounds. If it were to be increased to check deflation, then security outlays again are not being determined by our world strategy but merely as a substitute for increased public works and other Government services. Here it seems obvious that public works and tax reductions have far greater likelihood of yielding public benefits than would increased military spending not independently justified by strategic considerations.

Second, security spending must continue to reflect changes in international tensions and in the military art. This necessarily restricts its manipulation for purposes of stabilizing the economy. It may increase or decrease erratically relative to economic movements, or it may remain at a given level for some time. Thus it may offset or accelerate contractions and expansions, or if stable itself, it will help to check business swings. Clearly it poses difficult fiscal problems involving tax, debt, and monetary policies.

It follows that it would be unwise in the management of security expenditure to combine a stabilizing function with its traditional strategic purpose. Economic stability can more easily be promoted by other, more flexible, devices: Monetary policy, tax changes, and variations in outlays for public works and other Government services. The same conclusion holds for long-term growth. Major decreases or increases in security expenditure, dictated by developments in foreign relations or weapons technology, obviously would be laden with implications for both the realized and potential rates of economic growth, posing new problems for fiscal management. So far as security spending is concerned the problem is to accommodate economic development wisely to the changes it may independently invoke.

The necessary fiscal and monetary tools are already at hand for this purpose. The real task is to use them intelligently and with courage in an economic world where certainty is not possible.

Our study does not deal with the vexing question: How to obtain maximum efficiency in expenditures for national security. There are two main alternatives present for government here—it could fix the maximum rate of security spending at a given price level and instruct

the defense authorities to assemble the best possible strategic package; or it could instruct them to design a minimum strategic package and spend accordingly. There is no reason why the two rates of expenditure should match, nor is there available an economic test of best performance under either approach.

Obviously it is of the utmost importance that efforts be made to develop such criteria, assuming they are possible. Clearly, too, there is great discretion open, regarding alternative strategic packages and regarding the share of national product that could be assigned to defense. These pose major political issues which lie outside the province of the economist. We have simply assumed here that the strategic authorities develop and change the existing package solely on strategic grounds. Our position is that changes in such outlays should not be manipulated for reasons other than their strategic rationale itself.

Representative MILLS. Thank you, Professor Hildebrand.

You read the statement on your own behalf and also on behalf of Prof. Norman V. Breckner, department of economics, University of California, Los Angeles?

Mr. HILDEBRAND. Yes.

Representative MILLS. Do you wish to make any statement, Professor Breckner?

Mr. BRECKNER. Not at this time.

Representative MILLS. Our next panelist is David Novick, chief, cost analysis department, the Rand Corp., Santa Monica, Calif.

STATEMENT OF DAVID NOVICK, CHIEF, COST ANALYSIS DEPARTMENT, THE RAND CORP., SANTA MONICA, CALIF.

Mr. NOVICK. Thank you, Mr. Chairman.

In the material already submitted to this subcommittee, I listed several major factors that should be taken into account. These were:

External political, military, or economic pressures.

Mutual inspection possibilities.

Proposals to substitute international forces for national ones.

Changing technology in the weapons and vehicles of war.

Domestic demands for lower Federal expenditures.

Inflation or deflation.

Impact of past budget actions and future probable impacts of budget decisions now being made.

In that material I emphasized the fact that one factor, namely, the demand for lower Federal expenditures, seemed to be uppermost in determining the current amounts available for national security. I urged a reexamination of this determination in view of the possible influences of these other factors and the need for not isolating 1 or 2 or 3 of these elements but rather for relating all of them, lest we formulate not only an incomplete but an inaccurate judgment.

In this statement I would like to emphasize only the last four of these considerations. First, Technological changes in means of war, wherein we have witnessed some rather striking developments in the last few weeks.

Improvements in weapons, vehicles, and other related equipment used in warfare have been so rapid in the past decade that it becomes very difficult to project future growth. Nonetheless, developments

now in processing indicate further changes just ahead. Some of these will tend to reduce costs, but most of them will mean substantially higher unit prices for future procurement.

Probably equally important in an expenditure analysis is the likely sharp increase in outlay required for applied research and for development. I will not attempt to cover even a major fraction of the possibilities but instead will rely upon an illustration.

Improvements in propulsion now indicate the possibility of very much faster airborne equipment, both manned and unmanned. Introduction of these improvements will require basic changes in the materials used in the vehicles. Although there are numerous possibilities, the most likely one seems to be a change from aluminum and magnesium to alloyed steels. Such a shift will mean not only an increase in cost per pound of the material required, but more important, a twofold to fourfold increase in the material fabricating expenditures and the investment in fabricating equipment. This will mean substantially greater outlays per unit of output. To profit from these possibilities, substantial research and development is required, both in metallurgy and in fabrication processes and equipment.

The net effect is likely to be that we will have to choose between modernizing or maintaining forces at the level of expenditures now being set for national security purposes. This Government can hope to lead the world in invention and innovation in the means of war and to do this within a fixed and relatively lower budget. However, if results in both friendly and potential enemy countries demonstrate this hope to be a false one, I assume that we will review and, if need be, change the previously established policy.

The lead time on research and development is even longer than the lead time for manufacturing. If a technological change is the product of a potential enemy, money may not be able to buy us the time required to catch up. We must, therefore, set a level of research and development which promises to keep us at least abreast of the rest of the world and maintain both a manufacturing capacity and military capability which will permit us to introduce important inventions or innovations quickly.

Second, the fact that for many years a sizable and influential part of our citizenry has been very much concerned about the large portion of our national product which goes into Government spending. There is no need for me to emphasize this issue to you. I feel, however, that some cautionary notes are in order.

We must be sure that our actions to obtain lower expenditures are not based just on the goal of spending less money. To be sure, we must keep our Government finances in order, for a disorderly national economy is of itself a primary threat to our security. But the other factors involved must also be fully considered before we can say that the proposed expenditures are too high.

Once again, painstaking analysis is required, first, to determine a practicable level of military activities and, second, to establish spending levels which are acceptable to the Nation and can, therefore, be expected to remain stable for a number of years. At this point I would like to emphasize that nothing is more expensive and wasteful than "stop then start" and "start then stop" changes in national security plans. It means closing bases at one time and a few years later reopening them or building new ones. It means building factories, buy-

ing equipment, and changing workers, only to use them in an inefficient way.

Probably most wasteful and harmful is its effect upon the morale of defense personnel, both military and civilian. Inflation has had a powerful effect on our national security expenditures since 1950 through its impact on prices paid for goods and services.

Third, inflation and deflation until a few weeks ago, most current economic reporting took it for granted that prices would be higher in the rest of 1957 and into 1958. It is this writer's judgment of 6 months ago that we had passed the peak of the postwar boom. In a paper completed in April 1957, I said:

For business in general, the 1956-57 problem was that of containing the boom. For 1957-58, it will be one of sustaining the boom. Although there will be a small upward movement in late 1957 and early 1958, it will be in the form of price change rather than in expansion of real production. If two of the major components, housing and automobiles, do not improve, there is a threat of a real change in the direction of the postwar economic trend.

That opinion written in April assumed no reduction in defense expenditures. Steps to reduce military outlay since April lead the writer to believe more strongly that the trend has changed and the direction of economic activity will be downward.

Prices, particularly prices of military goods, will continue upward until the first quarter of 1958. Unless there are major reversals not now in sight, economic activity will move downward and general prices will reverse trend by mid-1958.

If this judgment should prove correct, national security expenditures will not be subject to further inflationary pressures in fiscal year 1959. The budgeting and buying cycle for national security expenditures is a long one, with the result that actions taken prior to July 1957, will continue to have a major effect for some years.

Fourth, current and future expenditures lead-time will influence current and future expenditures in quite different ways. Since the fiscal year 1958 cycle began in late 1955, and since the legislative and administrative commitments from earlier fiscal year funds will continue to have an impact through 1959, the combined effect will tend to make for a \$40 billion-plus spending level for the next few years.

A moment of reflection on what has happened may be appropriate if we look to the activities that occurred at the time of the Korean crisis.

Fiscal years 1948-50 was a period of reducing and holding down national security expenditures. When the events of June 1950 called for a reversal of this trend, although goals were immediately raised, only moderate expansion in armament was achieved in the next year. It really took more than 2 years to approach the newly established objectives. As we go into this present economy period, we might want to keep this bit of history in mind.

Serious study should be given to the lead-time problems; and steps should be taken to insure that the time required to build up forces and improve their armament is consistent with our appraisal of our need for security.

Emphasis on economy without consideration of the other major factors which should influence current and future trends in national security expenditures indicates that the major effect will be to hold security expenditures at or below the 1957 level through 1959.

The major result of this will be to reduce expenditures in the years 1960-61, and thereafter. If these forecasts seem reasonable, then there is a greater need than ever before for objective analysis of the impact of defense expenditure cuts on our ability to attain our announced political goals in the world.

Only a short time ago a similar economy drive was followed by the Korean crisis. Aside from its military and international political results, the economic effect of that combination of events, economy reversed by crises, was inflation at a faster rate than that which occurred during World War II.

Now that we seem bent on repeating this process, it might be wise to give consideration to taking out a little insurance.

Since an actuarial basis is not now available, we will have to work out both the kind of policy and amount of national security expenditure insurance that will best provide this protection. I hope my repeated reference to studies that should be made is not translated as a suggestion that a long time is required for evaluating what we are doing and determining what we should do. Probably the most important point I am trying to make is the urgent need for review, and that the study be made quickly so that if we are on the wrong road we can change direction before it is too late. The major part of this argument is the basic proposal that we broaden our terms of reference to include at least the seven elements which I have referred to.

Also, that we treat them not separately or in 2's or 3's; these forces have strong interactions, and we must be sure that we sum up an accounting of all of them.

Probably the outstanding point is that we recognize lead-time as a basic factor in translating our ability of what we would like to do into what we really can do.

It seems strange that it is so difficult to explain the importance and the length of the lead-time in research, development, and procurement of military aircraft and guided missiles when everyone is familiar with the long lapse of time that separates the writing of a contract from the completion of buildings we see in civil life. Take a medium-sized city office structure, say 10 or 15 stories tall. From the time that an owner-to-be signs his name to a contract until he takes possession a year, a year and a half, or 2 years may elapse without anyone considering the delay at all remarkable.

Now a modern office building is not a very complicated structure, in terms of modern military aircraft and guided missiles. Raising the capital to pay for it may not be exactly easy but the details rarely take up much space on either the real estate or the financial sections of the newspaper. Standard grades of steel are used for beams, reinforcement rods and mesh. A large number of suppliers stand ready to sell ready-mixed concrete, sheathing materials for the exterior, sash, flooring, roofing materials, and every other part of the structure. The most complicated part of the structure is probably the elevator system. Still it takes a year to 2 years to complete an office building.

Contrast this with the design and construction of a new kind of military aircraft or guided missile. If it is to fulfill the expectations of its designers, it must outperform anything existing and hence the engineer must go beyond his own experience or the experience of anyone else. The money market problem is different, too. The need for the new aircraft or missile must be justified to 8 or 10 echelons of execu-

tives, first military and then civilian. If it survives this review it might, by chance, be just in time when the Federal money market—budget appropriations—is open, once a year. If design should be delayed or if review is too protracted, the money market may be closed and no important action toward funding it can be taken for another year. At that time, it will have to compete with other designs for available funds.

The steel used in its construction does not come from stock. The great structural strength at temperatures approaching white heat needed in high performance engines requires special steel alloys that are mixed and melted to order. The words “special” or “made to order” have to be applied to almost everything that enters into the construction of modern, high-performance aerial vehicles. Nothing can be pieced together, cut and try; the weight and performance dimensions of every component have to be computed long before construction begins.

An engineer might object to what I’m saying on the ground that it understates the great differences in level of difficulty in designing and constructing a large but simple structure, like an office building, as contrasted to a large, precision-made, complicated structure like a modern military aircraft or guided missile. He would be right; I have understated the differences. I have also failed to explain how these differences in level of difficulty create differences in the time required to solve the technical problems involved. This will always be nearly impossible to explain in words; to demonstrate these propositions properly would require a behind-the-scenes tour.

I’ll have to be satisfied if I can persuade you that if great patience is needed in awaiting the completion of a simple structure like an office building, even greater patience will be needed awaiting the completion of the first military aircraft or guided missile of a new series. Neither of them can be had off the shelf today just because we want them now.

Representative MILLS. The next panelist is Arthur Smithies, chairman, department of economics, Harvard University.

STATEMENT OF ARTHUR SMITHIES, PROFESSOR OF ECONOMICS, HARVARD UNIVERSITY

Mr. SMITHIES. The sputniks have demonstrated once again that the main problem with the defense budget is political. Like the Korean invasion, they woke the Nation to its danger, I hope before it was too late. The disturbing fact seems to be that we need these dramatic demonstrations to stir us into political action. Even the successful Russian ICBM tests last July were insufficient even to halt the process of unilateral disarmament on which we have been so actively engaged.

These events illustrate the feast-and-famine cycle in defense budgeting. A sense of emergency, obligingly provided by our adversaries, awakens us to our dangers and we rearm. But with no diminution of the danger, we grow used to it and disarm in order to reduce taxes—supported by solemn statements that 8 percent of the national product is more than we can afford to spend on national survival.

Unlike other programs—agriculture for instance—national defense does not have the benefit of organized and continual political support.

from within the country. The private manufacturers of arms, who were villains of the thirties, are woefully weak in their political influence compared with veterans, conservationists, and farmers.

I have said enough to show that, judging by results, something is wrong with our method of budgeting for defense. The root of the trouble is that political democracies have not yet learned to make the sustained defense efforts that are now needed.

While this may be in part an inevitable price we must pay for democracy, these are various features of the budgetary process that contribute to the lack of support for an adequate defense effort; and there are various improvements in it that are entirely feasible.

1. THE NEED FOR A BUDGET THAT CAN BE UNDERSTOOD

In the first place, it is extremely difficult to discover what the budget provides for in terms of the Nation's military and security objectives. The form of the budget was determined in the 18th century, and was designed to insure congressional control over the executive—not to reveal the content of national policy.

In support of congressional control over the executive, I feel the other objective should not be overlooked.

There are various ways in which a meaningful program budget could be constructed. A budget based on the distinction between strategic and tactical forces would permit the military program to be related directly to the major issues of foreign policy; and would not necessarily disturb existing arrangements within the Department of Defense. In the age of the hydrogen bomb and the ballistic missile, national strategy cannot be regarded as a technical military matter. The issues must be widely understood and discussed; and that is extremely difficult with the budget in its present form.

In that connection, I am extremely glad to see that a congressional committee is taking the need for full disclosure to heart.

2. FORWARD BUDGETING FOR LONG-LEAD ITEMS

A second difficulty which has aroused much recent controversy relates to budgeting for long-lead items. While the budget has always been prepared, considered, and enacted on an annual basis, the modern technology of defense requires that decisions made today will affect the budget for years in the future. A new weapon takes years to develop and produce. A development decision today contemplates expenditures in the years to come.

Despite these tendencies, efforts are now being made to increase annual control over the budget. The present efforts of the administration, for instance, mean that large-scale disruptions in the defense program must be undertaken in order to achieve a particular dollar figure for a particular year. Such efforts clearly do not lead to a coherent or consistent defense policy. The only adequate solution is that at the time appropriations are made their future expenditure implications should be considered. However difficult it may be from the political point of view, it is essential to realize that the budget is not an annual affair, but an instrument for programming over an extended future period.

3. THE PROBLEM OF EFFICIENCY

The third difficulty with the budgetary process is that, on the basis of experience, budget cutting does not seem to be the way to increase efficiency in the Department of Defense. Both in the late forties and at the present time it has become apparent that cutting the budget simply weakens our defense rather than stimulating greater efficiency.

My conclusion therefore is that the question of efficiency must be handled primarily through direct efforts to improve the administration of the Defense Department. Such efforts can be stimulated and encouraged by congressional reviews of executive performance. But I doubt whether detailed inquiries into future budgets are of much use from this point of view. Besides, such inquiries deflect the attention of the Congress from the major policy issues raised by the budget. Trivial instances of waste capture the headlines, while the roles and missions of the services which really affect the budget tend to escape congressional attention.

4. HOW MUCH DEFENSE CAN THE COUNTRY AFFORD?

My final point relates to the burning issue of how much we can afford for defense. Here I must regretfully report that the opinions of amateurs usually carry more weight in public discussion than those of professional economists. While the professional economist is far from infallible in his diagnosis, I submit that his record is far better than that of the amateur. And the president of even the largest corporation is still an amateur from the point of view of understanding the working of the national economy.

I suggest that the professional opinion can be brought to bear to an increasing extent on the budgetary process by closer association between the President's budget and his economic report and by the closer association of the work of your committee with that of the Appropriations and Revenue Committees of the Congress. If the President undertook to give a professional analysis of our economic capacity for defense, amateur statements would at least have to run the gantlet of professional opinion.

In the Congress, it would be most desirable if the valuable work of this committee could be reflected more directly in budgetary decisions.

There is no need for me to point out at this time that the economic report throughout history that is carefully refrained from discussing impact on the budget. And particularly in the recent years it has devoted itself to short-run diagnosis.

Needless to say, I believe we consistently underestimate our capacity to defend ourselves. Such underestimates by our allies and ourselves had a great deal to do with bringing on World War II. Fortunately, at that time, the enemy also underestimated his economic strength.

Now we may not be so fortunate. By underestimating our economic capacity to deter aggression, we increase the risk of a war whose cost may have to be measured in terms of total destruction.

Representative MILLS. Thank you, Professor Smithies.

Let me say as preface to this discussion, that in turning our attention in this study to our major sectional security program, there is no suggestion that the subcommittee believes these programs should be expanded or contracted on the basis of their effects on economic growth and stability.

I am sure that none of us would hesitate in urging and voting for a substantial reduction in such expenditures if world conditions would permit, regardless of any immediate consequences such actions might have on the level of economic activity.

I am sure also that none of us will hesitate in supporting considerable outlays for national security if in the view of our military experts and other experts, these are required.

Our purpose rather is to be sure that we can recognize the economic consequences of changes in the size or character of our security program in order that we may take such other actions as may be necessary to promote economic growth and stability. Our basic inquiry here, therefore, is whether our current defense efforts contribute to stabilizing or destabilizing, and whether they stimulate or deter economic growth.

A collateral question is the extent to which national security programs exhaust available resources, and therefore, whether we are in danger of approaching the limits of our capacity to maintain adequate defense appropriations.

Concerning this latter point, we have heard a number of assertions to the effect that we are in no such danger. And I must say for myself that I am sure these assertions are correct.

Professor Smithies, in your statement this afternoon, you dealt specifically with this latter point and suggested that professional opinion be brought to bear on this question of our economic capacity for defense. Let me now ask you to use your very fine professional talents to outline for us just what is meant by our "economic capacity for defense."

Mr. SMITHIES. Mr. Chairman, one has to think of the defense budget in terms of a long-sustained effort and not in terms of mobilization for a short-run war as occurred in World War II.

There are various criteria for economic capacity for defense. If we attempted to have a program that results in chronic inflation, this would not, I believe, result in any economic breakdown. I do think the inflationary danger has been greatly exaggerated. I do not know of any runaway inflation that has ever occurred except as a result of a full-scale mobilization.

Nevertheless, I do think a continual price rise of, say, 3 percent a year, will produce increasing political resentment to the program and call for something to be done. And if that occurs, it becomes very difficult to sustain the program.

The question arises about whether we should begin on a program that has these consequences, and is in danger of being curtailed, or else whether we should have a smaller program that is less likely to run into inflationary dangers.

Personally, I would err on the side of running a few inflationary risks for the sake of national defense.

Another criterion is our capacity to grow. As we have seen, for any program to be sustainable, the economy must continue to grow and must provide some steady increase in the standard of living.

Incidentally, we have had a fantastic increase in the standard of living since the war, which makes me view with a good deal of skepticism many statements about our crushing burden of taxation at the present time. I do not know any economic criterion whatever that would lead one to think that our burden of taxation is crushing. There

are various things that have gone with the tax system. It seems to me the problem in the tax area is tax reform rather than tax reduction.

I think these two criteria, immediate inflationary tendency and sustained growth, are two of the things one has to take into account in determining capacity to defend ourselves. There is no mechanical method of doing it. It does very much regard a matter of judgment.

Representative MILLS. Well, there is no such thing as a specific measurement of capacity for defense.

Mr. Bolling?

Representative BOLLING. I do not remember the detail, but it seems to me that one of the few thorough studies that have been done by the National Planning Association some years ago—and I would like to be reminded of the figures if I am wrong—but it seems to me that at the time when our gross national product was a good deal less than it is today—their estimate was that we should certainly be spending a great deal more without damage to the economy. (See p. 356.) I have forgotten the specifics, but it seemed to me we were running at a gross national product of around 350 billion—maybe a little less at that time—and the high figure was in the order of some 70 billion. And the median figure, without controls, was on the order of 60 billion, which would run, what—20, 25 percent of gross national product as a sustainable defense expenditure.

Would that order of magnitude seem somewhat reasonable?

Mr. SMITHIES. Sustainable defense or total?

Representative BOLLING. Sustainable total defense—

Mr. SMITHIES. Total budget or the defense budget?

Representative BOLLING. I am talking about defense alone.

Mr. SMITHIES. We have about 400 gross national product now. We would have some difficulty in sustaining a hundred billion permanently. It is very much a matter of political leadership and the sense of external urgency. I think if the Russians were obliging enough to keep the pressure on us, we would easily sustain that hundred. I think it is sensible enough from their point of view to take the pressure off from time to time.

Representative BOLLING. That is political.

Mr. SMITHIES. As a matter of economics there is no question that we could afford a hundred for defense. But the economic limit is so far above what we actually do that I believe the real question is political. Are we willing to do it. In particular are we willing to cut consumption in order to make room for defense, which could be done and still leave room for rising living standards.

Representative BOLLING. I agree with what you said. I would be glad to see what the other members of the panel have to say about it.

Mr. HILDEBRAND. I think if we take for a guide at least as a starting point, 1944, when we took 42 percent of our gross product for military purposes that was a situation in which you had the psychological advantage of a great war, and public opinion mobilized to pay any price deemed necessary for that purpose. Moreover it was a period in which we cut deeply into the investment for the private industrial sector of the economy.

I suspect that to cut 42 percent out now would be an extremely difficult thing from a political point of view, because you have to have a necessary public opinion to support such a cut. And it has not been shown that a cut of that magnitude is needed. For the long run, if

we wanted to sustain growth, I think we would also have to face the fact that we could not cut that deeply without cutting into investment necessary to develop the productive capacity of the system.

But having said that, I would urge, myself, that there is great room for discretion here as to the part that we assign to defense. And I think Professor Smithies is right when he says that the basic problem is leadership to create that atmosphere of public acceptance and support needed for whatever is deemed strategically required.

Mr. Novick. Are we not reversing the order of things here in trying to decide how much we can spend?

Is it not first a question of how much do we need?

Then, we get into the question of how much do we need in national security in terms of weapons, and how much do we need in physical plant. And, then how much do we need of the other things that are involved in national security, be it foreign aid, point 4, the support of international alliances, or the like.

I think the discussion of an absolute limit or an absolute minimum involves an assumption that we have first determined what we can afford, which I do not think we ever can do. We can afford to do darned near anything we have to do. If the alternatives are total defeat or total bankruptcy, I am sure we would take bankruptcy rather than defeat. It is, therefore, a question of the time at which we require it. If we are going to have a cold war—and I assume that is a valid assumption for some years to come—we have to figure out what will be required to deal with the situation, and then accommodate the monetary requirement to what is needed.

We obviously do not need a 1940 mobilization at this point. I think one of the major points to which this committee might very well address itself is the unstabilizing nature of our current way of handling military expenditures—or security expenditures—on a year-to-year basis as Professor Smithies has just described it.

This is not something you can turn off and on each year. You cannot cut expenditures in 1958 because you decided to do it in 1958. You took actions in 1953, 1954, 1955 which are producing expenditures now. If you want to have a strong establishment in 1961, 1962, 1963, you have to undertake other expenditures now. And you just cannot cut in each year as we now do without either disrupting the military or security establishment, or disrupting the economy.

Representative BOLLING. I agree with that. I made a speech off the record on that the other day. My reason for asking the question is on every occasion those who feel that (1) we have to have policy decisions and (2) that you then use economic skill to implement those policy decisions rather than vice versa.

There are constant cries, we are spending ourselves into bankruptcy and this is a deep plot in the mind of Lenin.

I was taking the opportunity of using this panel to get a little testimony from specialists in the field of economics that we had a great deal larger capacity economically than we have ever demonstrated our willingness to pursue politically.

Mr. Novick. The question I am raising is: Haven't we made a policy, that is, that we want to spend so many billion dollars?

Representative BOLLING. That will not be my personal approach.

Representative MILLS. That is what Mr. Novick took notice of in his paper as I recall in reading; and he thought it was a mistake.

Representative BOLLING. At some point in the record, I think it is appropriate for the provisions of that NPA study to go into the record.

Representative MILLS. We will put them in at this point. Without objection, they will be put in at this point.

GENERAL ECONOMIC FEASIBILITY OF NATIONAL SECURITY PROGRAMS¹ BY GERHARD COLM AND MANUEL HELZNER, NATIONAL PLANNING ASSOCIATION

March 20, 1957

When the President transmitted to the Congress his budget calling for \$72 billion in expenditures for the fiscal year 1958, many voices from outside and inside the administration were heard saying that the budget exceeded what could be spent without creating further inflationary pressure. In the light of that criticism it may appear more appropriate to ask: "How much must defense spending be cut?" than to raise the question: "How much more additional defense programs can we afford?"

Nevertheless, contrary to the apparent evidence this report states the view that additional defense expenditures are feasible without necessarily creating inflation if the increase in Government spending is accompanied by other appropriate Government measures and by a cooperative attitude on the part of business, labor, and the people in general.

In analyzing how large a defense program we can afford, we pass no judgment whatsoever on the question of what size defense program is needed in light of the international situation.

It should be stated as a basic assumption that in a democracy a large defense program can be effectively executed only if the people believe that it is essential. Thus, when we ask here what increase in defense spending is feasible, we assume the existence of an international situation which convinces business, labor, farm groups and the general public that an increase in defense programs is a necessity.

A second assumption is that an increase in defense spending will not take place overnight, but that about 3 years would be needed from the decision to adopt additional programs to the peak in actual Government expenditures. A third assumption is that, with or without additional defense spending, high employment will be maintained during the coming years. This study does not attempt to forecast whether there will or will not be full employment or inflation but, rather, examines what policies will be needed to maintain balanced growth with different sized defense budgets.

Before analyzing the effects of increased spending, it is necessary to depict what is likely to happen without an increase in defense programs.

I. NATIONAL SECURITY EXPENDITURES UNDER PRESENT PROGRAMS (PROGRAM A)

In the \$72 billion budget for the fiscal year 1958 \$43.3 billion are devoted to the so-called major national-security programs. An analysis of the remaining items in the budget indicates that no substantial reduction in the budget total is feasible unless a cut in the major national-security programs can be made. A further rise in national-security expenditures in all probability would mean a further rise in budget totals. The budget document is silent on the expected future trend in national-security expenditures.²

A statement in the text of the budget message suggests that defense expenditures under present programs are likely to rise. "* * * we must continue to purchase enough of the current types [of weapons] to preserve our readiness until the effectiveness of the advanced weapons is demonstrated in tests." [Brackets provided.] There will probably still be a period of years during which expenditures both for intercontinental bombers and intercontinental missiles will rise. Only after a period of transition may it be possible that

¹This paper brings up to date the National Planning Association pamphlet *Can We Afford Additional Programs for National Security?* by Gerhard Colm, Planning Pamphlet No. 84, October 1953.

²See *The Need for Further Budget Reform*, a joint NPA statement, and Gerhard Colm, *The Federal Budget and the National Economy*, National Planning Association, Planning Pamphlet No. 90, March 1955.

For an appraisal of Government programs and their expected impact on the economy it would be highly desirable if each budget document would present summary budget estimates under existing and recommended programs for a number of years ahead.

expenditures for conventional weapons will decline as nonconventional weapons are being perfected.

In our projections we have made the arbitrary assumption that under present program major national-security expenditures would rise from \$43 billion in fiscal year 1958 to \$44 billion in the calendar year 1960. This estimate takes no account of a possible rise in procurement prices or other costs of defense. It merely suggests that defense expenditures in real terms will continue to increase moderately as more expensive types of weapons gradually replace current types of armaments.

TABLE I.—Major national security expenditures—Present program, fiscal years 1955–61

(Billions of dollars)

	Actuals		Estimates (in 1956 prices)				
	1955	1956	1957	1958	1959	1960	1961
Department of Defense.....	35.5	35.8	36.0	38.0	38.6	39.0	39.3
Mutual security, military.....	2.3	2.6	2.6	2.6	2.5	2.4	2.4
Atomic energy.....	1.9	1.7	1.9	2.3	2.4	2.5	2.5
Stockpiling and defense production.....	.9	.6	.5	.4	.3	.3	.3
Total, national security.....	40.6	40.6	41.0	43.3	43.8	44.2	44.5

Source: 1955–58, the Budget of the United States for Fiscal Year 1958, Special Analysis L; 1959–61, National Planning Association.

Before exploring the possibilities of raising defense expenditures by additional programs, we must ask if the anticipated level of spending under present programs can be sustained without causing continuing inflation. Those who contend that Government expenditures must be curtailed argue that the sum total of demands on productive resources at present prices exceeds the possible supply. Thereby, prices and rates of interest are driven up and some demand is curtailed. Consumer demand, business demand for producers' goods, Government demand for defense and nondefense programs, as well as foreign demand have, it is true, been running at high levels and have been rising recently in spite of rising prices and interest rates. However, the productive capacity of the American economy has also been rising; it may even have been rising more than aggregate demand, if measured in constant prices.

The increase in interest rates and the effects of credit stringency have curtailed the demand for housing, delayed the execution of some business-expansion plans and postponed some local-government capital-outlay projects. Moreover, by maintaining the relatively high rates of taxation, the Treasury has absorbed a portion of the increase in incomes and profits and thereby restricted the increase in demand by consumers and business. However, there also remain some bottlenecks, which might hinder increased production, such as a dearth of manpower with specific technical skills, and short supplies of some high-grade raw materials. Nevertheless, some increase in production could still be feasible using available manpower, plant, and equipment. Thus, it seems that the price rise which has taken place and the credit restrictions which have been adopted have curtailed consumer, business, and nondefense Government demand to the point where the appearance of excess capacity in some industries may have taken the place of excess demand.³

Furthermore productive capacity has been rising at an average rate of around 3½ percent per year. In the perspective of a growing economy the \$44 billion for national security purposes would account for about 9.5 percent of a full employment GNP in 1960, contrasted with 10 percent in 1956. The moderate rise in national security expenditures estimated under present programs thus would not claim a larger portion of productive resources than at present.

If total production increases in accord with full employment potentials and national security expenditures increase by not more than anticipated under

³ Unfortunately, since measurements of the rate of production in relation to capacity are collected only for a few industries, the statement in the text is more an impression than a provable fact.

present programs, a further increase in nondefense programs (e. g., the already initiated road-construction program and the school-aid program) and some tax reduction (of a possible magnitude of close to \$10 billion in terms of 1960 revenue) should become feasible by 1960 without creating excess demand. The projection in table IV, program A, indicates that defense spending under present programs would be compatible with a substantial further rise in consumer demand, business expansion, and some increase in nondefense Government programs.⁴ The increase in projected consumption—both total and per capita—would come from the personal incomes of a rising labor force plus additional wage earnings which in the past have risen about 2 percent per year plus similar increases in nonwage incomes. In other words, present defense programs would not necessarily interfere with a continuing growth of the economy. On the contrary, some significant reductions in the present relatively high tax rates would become feasible.

For the immediate future it appears wise not to reduce Federal taxes because some increase in urgently needed nondefense programs (Federal, State, and local) should have higher social and economic priority than tax reduction (see joint NPA statement, National Investment for Economic Growth, of December 1956—appendix B). This policy of no immediate tax reduction would require reexamination should a slack in economic conditions develop. If we look beyond the immediate future, however, the case for some tax reduction appears more encouraging.

The fact that in our opinion national security expenditures under present program would not lead to excessive claims on national resources does not exclude the possibility or even the probability of further price rises. In the modern economy the tendency of rising prices may originate as the results of excess demand or it may originate in the price-and-cost sphere itself. The price rise may be initiated in industries with administered prices (e. g., petroleum, steel) or it may start from the wage side; or prices and wages may drive each other up in the so-called price-wage spiral. A price rise of the cost-push type is often validated by credit expansion. However, expansion of credit and monetary demand in this instance becomes a secondary element rather than the primary cause of the price rise. Moreover, credit expansion under these conditions also tends to mitigate the impact of the cost-push price rise on employment. The problem of how to cope with such a situation was recognized in the recent Economic Report of the President which stated that we cannot rely on fiscal and credit policies alone for solution of the cost-push dilemma. The Congressional Joint Economic Committee in its joint economic report has emphasized the importance of price stability to continue economic growth and has urged further implementation of the President's appeal for self-restraint by business and labor.

The fact that there is at present the distinct possibility of further price rises does not necessarily mean that Government expenditures are excessive. Nor does it indicate that the productive capacity of the economy is not adequate to absorb a moderate increase in defense expenditures or that curtailment of governmental programs would necessarily prevent the threatened price rise. It is our conviction that we must face the problem of price rises originating on the cost side of production irrespective of whether national security programs remain the same, are somewhat lowered or somewhat raised. Over a number of years it appears likely that under present national security programs, some activation of purchasing power through credit relaxation and tax reduction may become desirable in order to sustain full use of the rising potential for production.

With this in mind, then, we shall proceed to examine the possible impact of additional defense programs on the economy.

II. THE ECONOMIC IMPACT OF ADDITIONAL NATIONAL SECURITY PROGRAMS (PROGRAMS B-D)

In this report three different additional national defense programs are considered. In each case annual expenditures are expected to reach their peak by 1960. The three hypothetical programs represent (1) a return to the level of expenditures near the peak of the Korean war (program B); (2) a moderate in-

⁴ Appendix A compares our 1956 projections made in the earlier study in 1953 (op. cit. table 7, p. 60, present program) with actuals for 1956 expressed in constant prices.

crease in defense expenditures above that level (program C); (3) a rather step rise in expenditures to a level slightly more than half of the peak of World War II spending (measured in 1956 dollars—Program D). Table II below suggests how the increases in defense expenditures might be time-phased over the period.

1. For program B total expenditures rise to \$54 billion by 1960, \$10 billion more than postulated under present programs. This program would approximate the 1952-53 dollar level of defense spending. It would achieve large and more rapid increases in defensive strength than are now envisaged. In particular, this program could provide for more expanded air defense and guided-missiles forces as well as for more rapid conversion to modernized armaments. It would permit increased preparedness to deter all-out war and at the same time increase equipment for "brush fire" fighting.

2. Program C assumes a \$20 billion rise in defense expenditures above the present program. The conditions under which such an increase could be regarded as realistic would probably involve the outbreak of localized hostilities. The program would expand the stepped-up emphasis on airpower and guided missiles assumed in program B and would permit a significant increase in strength for all the other national defense forces and possibly for a comprehensive civil defense program, including industrial relocation. Program C would also presume that America would assume a greater responsibility for and would make significant contributions to the protection of allied countries.

3. Program D envisages additional national security expenditures of \$31 billion by 1960, bringing aggregate defense spending to \$75 billion. Whether short of an imminent threat of a major war, it is feasible to assume that the economy could absorb and respond to a 3-year increase in expenditures of this magnitude is open to question. Although this magnitude would be superimposed on an economy whose productive capacity would have increased considerably over 1956, it is still not unreasonable to question whether the time element is too short to gear the economy to such increases unless it were placed on a near-war footing. Nevertheless, consideration of program D might indicate the limits of feasibility for sustainable partial mobilization programs.

TABLE II.—Major national security expenditures, projected calendar years 1957-60

[Billions of 1956 dollars]

	1957	1958	1959	1960
Program A (present program levels).....	42.0	42.5	43.5	44.0
Additional expenditure programs:				
Program B.....		1.0	5.0	10.0
Program C.....		4.0	11.0	20.0
Program D.....		7.0	18.0	31.0
Aggregate expenditures:				
Program B.....		43.5	48.5	54.0
Program C.....		46.5	54.5	64.0
Program D.....		49.5	61.5	75.0

General considerations

One of our assumptions was that approximately full employment could be maintained during the period from 1957 to 1960. However, full employment production levels would not be the same under the different national security assumptions. In the event of substantially rising Government programs, the full employment production potential would probably be higher than in the absence of such increases or lesser increases in Government programs (all

measured in constant dollars). The larger GNP potential associated with substantially rising Government programs could be explained by—

1. Unemployment would probably fall below the 4-percent level assumed for the usual full employment projection;
2. Additional workers may be attracted into the labor force;
3. Hours of work may be longer;
4. The change in the "product mix" would raise productivity rates as production shifts from the lower output-per-manhour consumer-goods industries to the higher output-per-manhour armament industries.

Our projections make an allowance for such increases in GNP as could result from rising national security programs. It may well be, however, that even larger increases should be expected than we have assumed.

Table III sets forth the broad determinants of economic growth and suggest how the additional defense programs might effect these determinants of the economic potential.

TABLE III.—*Economic growth potential at full employment levels in 1960, with various levels of national security expenditures*

	1956	Program			
		A	B	C	D
Population..... millions.....	168.1	177.8	177.8	177.8	177.8
Age 14 years and over..... do.....	120.2	126.3	126.3	126.3	126.3
Labor force..... do.....	70.4	73.2	73.2	73.7	74.0
Armed forces..... do.....	2.9	3.0	3.0	3.2	3.5
Civilian labor force..... do.....	67.5	70.2	70.2	70.5	70.5
Unemployed..... do.....	2.6	2.8	2.8	2.7	2.5
Employed..... do.....	64.9	67.4	67.4	67.8	68.0
Private..... do.....	58.9	61.0	61.0	61.3	61.0
Government..... do.....	6.0	6.4	6.4	6.5	7.0
Average weekly hours of work..... number.....	39.3	38.7	38.7	39.2	39.6
Total private man-hours..... billions.....	120.5	122.8	122.8	125.0	125.6
Private GNP per man-hour..... 1956 dollars.....	\$3.12	\$3.49	\$3.49	\$3.51	\$3.54
Rate of increase per year over 1956..... percent.....		2¾	2¾	3	3½
Government product per employee..... 1956 dollars.....	\$4,000	\$4,400	\$4,400	\$4,450	\$4,500
Rate of increase per year over 1956..... percent.....		2¼	2½	2¾	3
Gross national product:					
Gross private product..... billions of 1956 dollars.....	\$376.4	\$428.5	\$428.5	\$438.5	\$444.5
Government product..... do.....	35.8	41.5	41.5	43.5	47.5
Total..... do.....	412.4	470.0	470.0	482.0	492.0

Sources and assumptions:

Population: Population Projections, 1960-75, Census Bureau release P-25, No. 123, Oct. 20, 1955, series A.
 Labor force: Projections of the Labor Force in the United States, 1955-75. Census Bureau release P-50 No. 69, October 1956. Projection I.

Employed: Programs A and B derived by deducting 4 percent unemployment rate from civilian labor force; program C, 3.8 percent; program D, 3.5 percent.

Average weekly hours: Programs A and B, continuation of postwar decline; program C, continuation of approximately current levels; program D, moderate (10 percent) increase above current levels.

Productivity rates: Based on postwar trends adjusted for increases in defense efforts.

At this point a simple slide-rule calculation would indicate the relationship between rising national-security expenditures and potential gross national product. It is not so simple, however, to measure the impact of these additional programs on available resources or to evaluate the many specific problems which such program increases imply. It is not enough just to say that additional defense spending will account for X percent of the increase in GNP. An evaluation of the impact of additional defense programs must also take into account the extent to which sufficient resources remain available to satisfy the growing consumer demand of a rising population, business investment requirements, essential nondefense Government activities, and so on. A con-

siderable portion of a projected rise in GNP is absorbed by expenditures which are needed to make that rise possible and sustainable.

Additional outlays for defense are likely to require additional investment and expansion of productive facilities by some private businesses. Probably as a result of the very nature of current armaments, defense programs are heavily dependent upon the productive capacity of the aircraft and electronics industries. Although no detailed industry breakdown of the hypothetical defense programs has been made, it appears reasonable to add the shipbuilding and atomic-energy industries to the list of those upon whom heavy demands would be made as a result of higher defense expenditures. Nor is it, in reality, enough that our considerations stop here. For additional demand imposed on all the defense-related industries is transmitted back in the form of basic requirements for such items as steel and other structural metals, for machinery, critical materials, and petroleum products for jet engines and rockets, etc. Unless unused excess capacity exists in these industries or unless special inducements (e. g., rapid tax amortization, selective credit instruments, etc.) are adopted, the uneven impact of additional defense expenditures may create production bottlenecks for particular industries, or may leave insufficient resources available for other nondefense sectors. Table IV suggests a possible distribution of potential GNP under the various hypothetical defense programs. (See table IV, p. 362.)

Policy implications of the alternative programs

1. Program B assumes the return of defense expenditures to Korean-war levels. Spending for national security would account for roughly 11.5 percent of gross national product. This percentage of national product, however, would be less than the 14.7 percent in 1953, but somewhat larger than it is at present. The rate of increase in per capita consumption suggested under program B would still exceed the rate of per capita increase of the past decade. Business investment could increase its capital formation in response to the higher capital requirements of the defense program and urgent Government nondefense programs could also be adopted and initiated.

The same level of national output as envisaged under program A would be attained under program B but without the tax reduction referred to in part I. Continuation of current tax rates would yield sufficient revenue to offset the inflationary impact of the additional defense expenditures and would result in a balance in the Federal Government's budget. This would not preclude the possibility of adopting compensating changes in various tax rates while leaving the expected total tax yield unchanged. Furthermore, higher expenditures and probably higher deficits on the part of State and local governments would mean that the government sector as a whole would still be a net expanding force in the economy. The "costs" involved in this additional defense program would be the necessity to forgo the otherwise possible tax reduction.

2. Under program C, national-security expenditures would exceed present spending levels by about 50 percent, totaling close to \$64 billion. The assumed additional pressure for more goods and services would make possible a full employment gross national product which exceeds the normal rate of growth. National defense would account for 13.1 percent of gross national product, somewhat lower than at the peak of the Korean war. However, sufficient resources should be available with this increased gross national product to maintain approximately the same per capita rate of increase in personal consumption as is assumed under program B. However, some of the increase in Government nondefense programs would have to be delayed.

TABLE IV.—*Projected national economic budget under various hypothetical defense programs and 1956 actual*

[Billions of 1956 dollars]

	Receipts	Expenditures	Excess of receipts	
			Amount	Percent
Calendar year 1956:				
Consumers.....	286.6	265.8	+20.8	7.3
Business.....	40.9	66.7	-25.8	
Government, total.....	(107.6)	(103.6)		
Less transfers, etc.....	(23.7)	(23.7)		
Government, net.....	83.9	79.9	+4.0	
Federal.....	52.9	47.0	+5.8	
Security.....		41.6		
Other.....		5.8		
State and local.....	31.0	32.8	-1.0	
Statistical discrepancy.....	1.0		+1.0	
Gross national product.....	412.4	412.4		
Calendar year 1960:				
Program A (current program):				
Consumers.....	328.0	304.0	+24.0	7.3
Business.....	53.0	74.0	-21.0	
Government, total.....	(118.0)	(122.0)		
Less transfers, etc.....	(30.0)	(30.0)		
Government, net.....	89.0	92.0	-3.0	
Federal.....	52.0	52.0		
Security.....		44.0		
Other.....		8.0		
State and local.....	37.0	40.0	-3.0	
Gross national product.....	470.0	470.0		
Program B:				
Consumers.....	318.0	294.0	+24.0	7.5
Business.....	54.0	75.0	-21.0	
Government, total.....	(128.0)	(131.0)		
Less transfers, etc.....	(30.0)	(30.0)		
Government, net.....	98.0	101.0	-3.0	
Federal.....	61.0	61.0		
Security.....		54.0		
Other.....		7.0		
State and local.....	37.0	40.0	-3.0	
Gross national product.....	470.0	470.0		
Program C:				
Consumers.....	318.0	293.0	+25.0	7.8
Business.....	54.0	80.0	-26.0	
Government, total.....	(140.0)	(139.0)		
Less transfers, etc.....	(30.0)	(30.0)		
Government, net.....	110.0	109.0	+1.0	
Federal.....	73.0	71.0	+2.0	
Security.....		64.0		
Other.....		7.0		
State and local.....	37.0	38.0	-1.0	
Gross national product.....	482.0	482.0		
Program D:				
Consumers.....	317.0	291.0	+26.0	8.2
Business.....	54.0	86.0	-32.0	
Government—total.....	(151.0)	(145.0)		
Less transfers, etc.....	(30.0)	(30.0)		
Government—net.....	121.0	115.0	+6.0	
Federal.....	84.0	81.0	+3.0	
Security.....		75.0		
Other.....		6.0		
State and local.....	37.0	34.0	+3.0	
Gross national product.....				

NOTE.—Assumptions:

1. Size of gross national product will be as shown in table LII.
2. Consumer saving under program A as a percent of disposable income will be as in 1956; under program B, C, and D by somewhat higher in each case.
3. Wage and salary income to rise at 2 percent per year under program A+B; 2½ percent per year under program C; and 3 percent per year under program D. Nonwage income to rise accordingly.
4. Business retained earnings (primarily capital allowances) to rise approximately \$3,000,000,000 each year.
5. Government nondefense programs to decline as defense expenditures increase.
6. Government transfer payments to rise to \$30,000,000,000 by 1960. State and local revenues to rise \$1,000,000,000 per \$10,000,000,000 increase in gross national product. Federal receipts were obtained as a residual. The implications for tax, credit, or other measures were considered as the balancing factor for the economy.

With the larger defense expenditures envisaged under program C, as well as those under program D, the inflationary pressures generated would call for a Government budget policy which would result in a budget surplus. Under program C, the extent of this budget surplus would be moderate. However, since State and local governments might still increase some of their debt-financed programs of capital outlays, Federal Government revenues would have to be increased in order to yield the necessary budget surplus for the Government sector generally. The adoption of program C would mean the postponement of scheduled as well as proposed tax cuts, and would indicate the need to increase existing rates or to adopt some additional tax measures to approximate Korean war levels of taxation.

If business and consumers should in the face of the heightened international tension suggested by program C begin to hoard materials, shortages could develop in defense procurement items. Or, should the possible outbreak of localized hostilities involve areas upon which the United States or its allies are heavily dependent for certain critical materials (e. g., petroleum, manganese, bauxite, tin, cobalt, etc.), it might become necessary to establish a direct materials allocation program. In this event credit and tax measures would not be sufficiently effective to prevent defense production bottlenecks.

(3) Under program D, which envisages aggregate defense expenditures of \$75 billion, the economy would be approaching a full mobilization footing.⁵ The increased needs of the Armed Forces and the requirements for defense procurement under conditions of national emergency—as implied in the assumption of this program—would draw still more people into the labor force and induce them to work longer hours. Yet, in spite of the greater potential of the gross national product, the increased demands of the defense program would absorb a still higher proportion of national output. Adoption of this program would require drastic cuts in Government nondefense spending plans and would necessitate curtailments in State-local spending. The per capita increase in personal consumption, while reduced, could actually be maintained only slightly below the average rate of increase of the past decade.

However, the assumed increase in production would probably create an addition to spendable income in excess of the addition to the possible increase in the supply of consumer goods. Therefore, a more stringent increase in taxes would be needed than suggested by program C. In order to prevent spendable income from bidding up prices without reliance on comprehensive price control and consumer rationing, tax rates would have to be raised considerably above those of the Korean war and the World War II period.

The high tax rates needed to control inflation, however, might reach the point where they begin to have adverse effects on production. They might also go beyond levels the Congress would be likely to enact, even under emergency conditions. It is, therefore, more realistic to assume that taxes would be raised only to previous maximum levels. Accordingly, with a defense program reaching or exceeding a total of \$75 billion the residual inflationary pressure not neutralized by taxation measures would have to be contained by price control and rationing. A program of this magnitude would certainly require materials allocation control in order to make sure that scarce materials are made available for defense procurement.

III. CONCLUSION

The alternative models should be understood as benchmarks for a study of the overall economic feasibility of present and additional national security programs. This study was not concerned with the question of specific bottlenecks which may arise if large additional programs are concentrated on specific products. A study of bottlenecks would have to be based on much more specific assumptions concerning the likely increase and composition of additional programs. This study also was not concerned with the effects of possible scare buying of the type which occurred after the outbreak of hostilities in Korea. Strictly speaking, this experience reflected more the fears of people to the possibility of an impending international conflict than the effect of anticipated additions to the defense program. (Much speculative buying took place in commodities which would hardly

⁵ In the earlier NPA study a \$75 billion defense program was considered close to the economic limit for partial mobilization. In terms of present prices, however, that program would approximate \$80 billion. Therefore the \$75 billion of defense expenditures assumed here represents a reevaluation of the point at which the adoption of full-mobilization measures would have to be considered.

be affected by Government armament requirements.) Such a situation could happen again, irrespective of any increase in the defense program. In a period of international turmoil, it would be prudent for the Government to prepare plans for adopting promptly measures to cope with possible changes in the international situation.

We are in a period of high business and consumer spending and rising expenditures for nondefense Government programs of great urgency (roads, schools, health, water and other natural resources). Prices are rising and many voices urge curtailment in present Government budgets, particularly for national defense. As was stated at the outset, additional national security programs appear feasible only if the international situation is such that the necessity for greater defense expenditures is clearly recognized, and if the people are willing to make the sacrifices needed to permit an increase in national security programs without causing serious inflation. Our study has attempted, as one of its main purposes, to clarify what these sacrifices might be.

In order to obtain a basis for evaluation, we had to ask first what economic developments appear likely if the present national security program would be continued (program A). Our conclusion was that because of the anticipated rise in nondefense Government programs, no reduction in tax rates in the immediate future would appear prudent as long as private activities continue at a generally high level. With rising income, production, and tax yield (from existing tax rates), some tax reduction should become feasible and desirable over the next few years.

In the event of a modest increase in national security programs (program B), we would have to forego this hoped-for tax reduction.

In case of a substantial increase in national security programs (program C), tax rates would have to be raised approximately to the 1953 or World War II level and some of the additional Government nondefense programs would have to be delayed. Also, credit stringency with its effect, particularly on housing, would have to be continued. Nevertheless, the increases in defense spending envisaged in programs B and C, supported by these fiscal policy measures, would be compatible with such increases in business investments and consumption as are needed for sustaining the posted increase in production. They would not necessarily generate inflation, even without comprehensive price and rationing controls. Materials allocation controls may be needed, particularly if Government procurement should be concentrated on categories of products which may create bottlenecks.

The alternative program D leads us to an increase in spending and inflationary pressure which could not be contained by an increase in tax rates and credit restrictions which appear politically and economically feasible. This case marks the transition to a war program which requires comprehensive direct controls.

APPENDIX A.—*Comparison of projected and actual gross national product for 1956*

[Billions of 1956 dollars]

	Projected	Active
Consumption expenditures.....	269.0	265.8
Private domestic investment.....	62.1	65.3
Net foreign investment.....		1.4
Government purchases.....	81.8	79.9
Federal.....	50.3	47.0
National security.....	45.0	41.6
Other.....	5.3	4.8
State and local.....	31.8	32.8
Gross national product.....	413.9	412.4

NOTE.—Detail will not necessarily add to totals because of rounding and because of differences in implicit price inflators.

Source: Projected—Gerhard Colm, *Can We Afford Additional Programs for National Security?* Planning Pamphlet No. 84, October 1953, appendix table 7, p. 60; expressed in 1956 prices on basis of implicit gross national product price inflators (see Economic Report of the President, January 1957, appendix tables E-1 and E-2).

Actual—Economic Report of the President, January 1957, appendix table E-1.

Mr. BURNS. Mr. Chairman, I would just like to underscore the importance of the point brought out, especially this question of

capacity. While I agree that need is the obvious determinant of how much should be spent, yet it is essential to have some idea of the capacity within which we can spend. Back in 1950 and 1951 when the Korean war was under way, all sorts of people, mainly Professor Smithies' amateurs, were predicting the most dire consequences if we continued at rather high-level expenditures. As it turned out, we handled a very sizable defense program very easily within our economic capacity. So, some idea of what the limits are without incurring inflation or bankruptcy in some sense, I think, is quite important, in order that when a crisis comes up we are not deterred from doing what we need to do because some people are shouting that we are going to spend ourselves into the poorhouse.

Representative MILLS. I thought I detected in the statements by Mr. and Mrs. Fishman on the one hand and by Professors Hildebrand and Breckner on the other hand some fundamental disagreement on the question of whether we should regard our postwar defense efforts as burdensome in the sense that they limited the growth which otherwise would have occurred, or as actually having stimulated economic growth at a faster rate than would have been forthcoming in the absence of high levels of defense demand.

I wonder if there is, first of all, a difference such as I detected in the viewpoint of the four of you? You have had opportunities to read each others' statements in the compendium, and you have heard the statements made here today.

Mrs. FISHMAN. I believe that I am right—and Mr. Hildebrand and Breckner can correct me if I am not—but there is no fundamental disagreement as to the basic economic realities. I think the disagreement stems rather from the fact that they assume that in absence of large security expenditures there would not have been full or nearly full employment of resources.

Mr. Fishman and I, on the other hand, took the position that it is not necessary to make this assumption. The Employment Act of 1946, the Council of Economic Advisers, and the committee of which this subcommittee is a part, I believe, are altogether supposed to help this country achieve full or nearly full employment of resources even in the absence of a huge national security program.

We, therefore, started from the assumption that some means other than large national security expenditures could be found to achieve this same result.

And we felt from this point of view that it is incontestable that the standard of living would have been higher in the postwar period and that the rate of economic growth would have been larger in the postwar period if this had in fact occurred.

Now, there is one other point, I think, which I might perhaps comment on in this respect. Several of the other participants in this panel emphasized the huge technological advances which have been made. And, again, we felt there is no reason to assume that technological advances of this sort can occur only when you have a national security program. It is true that there is an increase in the effort that all of us exert, when we feel the Nation is faced with imminent danger. But I think other types of motivations might be provided which could accomplish the same results even without huge national security programs. Why must we assume that we could not have atomic energy for peacetime purposes if we had not first developed an

atomic bomb? The same thing goes for radar and other electronic developments.

Representative MILLS. Professor Fishman.

Mr. FISHMAN. I should like to expand one point. We would not dispute the fact that certain technological advances which have resulted from national security expenditures have helped to expand civilian output and contribute to economic growth. What we questioned was whether such advances could not have been made more readily in the absence of a national security program.

Representative MILLS. Mr. Hildebrand and Mr. Breckner.

Mr. HILDEBRAND. I think perhaps that issue overlooks, at least in part, our qualifications. We did not hold that the only way you could get technological improvement was through military research and development expenditure. We held that this expenditure did, however, produce certain very distinct results that were beneficial to the economy. Now, there is a difference between saying this is the only way you can do it and saying, on the contrary, that this was the effect of expenditure channeled through the military account.

I think the evidence is unequivocal that this military research and development expenditure did produce some very significant developments in technology, touching off a process in which business enterprise, theoretical research, and the military side of the equation worked together for perhaps the first time in our history and in that way did bring about a truly startling series of results, many of which are still to come.

Now, second, I would like to say that we did not assume that there could not have been full employment during this period 1939 to date if there had not been either the large increase in Government expenditures or of Government expenditures generally.

That is a position I think no economist would take.

Clearly if the private sector of the economy had full demand for both investment and consumption purposes, a prodigious rate of growth would have been possible, and there would have been no problem of full employment. However, our position was that past history had revealed instability of considerable measure in private investment expenditure; that our economy over the long history of its development has shown periods in which savings outran investment and depressions were the consequence.

We do not think that that instability of private investment expenditure has been eliminated; it has, however, been offset by the shoring-up effects and, indeed, the supplemental effects of Government spending, and in particular of national-security spending.

The issue, however, is ultimately a speculative one. The pessimists in the economics profession raise questions about the volume and sustainability of private investment, not only for the recent past but for the future. The optimists contend that with suitable monetary and fiscal policies, the investment opportunities will always be there. They say that there will never be an oversavings problem of any serious kind, and, therefore, growth can take place.

Now, there might still be a third position, and we recognize this. And that would be that even if private investment is unstable, could not the Government, could not other channels or agencies of expenditure, have fostered technological development, and could it not foster future development and protect the economy from depressions?

That, I think, must readily be admitted. We have no special brief here for military expenditures. We do say, however, that in appraising their impact—and, after all, they cost us two-thirds of a trillion dollars since 1939—we should not conclude too quickly that they were all dead loss or money down a rathole. There were side benefits. They have produced great protection, which must be taken into account in assessing the overall balance involving these expenditures.

Representative MILLS. Professor Breckner.

Mr. BRECKNER. I should like to add one comment to these remarks.

One particular question raised here is: What could have been our experience with respect to stability or instability in the absence of security expenditures realized at such a high level over the last 15 years or so?

I would like to make it perfectly clear that my own point of view is that with respect to generalized governmental policies toward the reduction of instability, that other devices than public expenditures, and in particular national-security expenditures, can be quite efficacious to this end. In particular, I firmly believe that wisely pursued monetary policies, and tax policies as well, wisely and timely pursued, I may add, can be very powerful contributors to such economic stability.

I, for one, would not for a moment want this to go by without this affirmation. These immediate remarks are directed to the question of what could have been our experience with respect to stability and instability in the absence of such sizable security expenditures; what would have been our experience is another question to which I won't for the moment address myself.

Representative MILLS. I have asked this question, not because I am particularly concerned about the theoretical matter of what might have happened at some past time, but because I was trying to get some light upon the basis of your evaluation of history of what might take place under certain circumstances in the future.

What I had in mind is this: Let us assume that when the President spoke at Oklahoma City in terms of increased spending for defense as a result of the developments of rocketry and satellites in Russia that he meant that we would have to spend in place of \$38 billion, \$48 billion in the fiscal year 1959.

Could we expect the increased outlay for military could result in deprivation in the standard of living, or would it react in our economy in such a way through the promotion of economic growth as to safeguard present standards of living? If we find it working in the direction of reducing our standards of living, we should know it. And we should be endeavoring to try to overcome that result through compensatory action. That is what I had in mind in presenting this matter to you.

Professor Fishman.

Mr. FISHMAN. I think that at this time, in view of the recent decline in the level of economic activity, an increase in national security expenditures to an annual rate of \$48 billion would not have strong inflationary effects for some months to come. But after the economy attains full employment, any further increases in national-security expenditures would produce inflationary effects.

Representative MILLS. In other words, in the circumstances of such a pause or breather or downturn at the moment, whatever we could

spend between now and the end of the fiscal year in a buildup will merely compensate for that downturn? As soon as we had recovered from the breather or pause, then we would have to be concerned with whether or not that additional outlay was having an inflationary effect or not.

Mrs. Fishman.

Mrs. FISHMAN. There is something I should like to add to that. I think if we learned anything from the experience of the 1940's and 1950's, it is that our economy has a great deal more flexibility and resiliency than any of us dared to hope for in the 1930's. Surely if we could make the type of effort we made during World War II and still emerge from it with an economy as strong as we did, we need have no fear of making the type of increase in our security expenditures that the President is contemplating at the present time.

Even if, for a time, it should mean a slight sacrifice in our standard of living—and I am not even convinced that that would be necessary on the basis of the figures he used—I am sure that we could in time manage to overcome any adverse effects.

And I feel, as everybody else here has said today, that our main consideration should be what we need in this respect. If we need it, I feel this country will find a way to afford it.

Representative MILLS. I am sure that is true.

Dean Burns.

Mr. BURNS. In considering the figure, you mentioned the \$10 billion.

Representative MILLS. Let me just point out that that is just a hypothetical figure. It is not based upon any knowledge at all.

Mr. BURNS. I realize that, because the President didn't give a figure, as I recall.

Representative MILLS. That is correct.

Mr. BURNS. But, using your hypothetical figure, we could compare that with what we normally expect as an annual increase of GNP of around fifteen or sixteen billion. Theoretically, we could sustain not just one increment of ten billion, but perhaps a succession of them without cutting into the average income and level of consumption in this country.

Representative MILLS. Professor Hildebrand.

Mr. HILDEBRAND. I find myself in agreement with all this. I would only like to add this point: That there would be income effects from an increase of security spending. They might be as much as two and a half for each dollar of increase. Now, this raises the question about the competing types of demand—private investment, private consumption, and also other types of Government demand.

At the present time I am completely in agreement that we should not contemplate major increases in taxation to meet the kind of problem we are in, because I think we have a phasing problem confronting us regarding the other components of demand, particularly demand for private investment.

I share Mr. Novick's position regarding our present position—that we are on the edge of a recession, certainly a leveling out. It has been evident for some months.

However, if we were to resume our upward rise within the next year and we had increases of the type you suggested, then we will have a problem quite possibly of whether to cut through taxation or increased

voluntary saving by the population or alternatively to let this combination of demands assert itself in an inflationary movement.

Representative MILLS. You would very definitely feel, I assume, that these additional outlays for defense should be managed through increases in taxes or through reductions in so-called nondefense activities, or both, so that there would be no unbalance of the budget as a result of the additional outlays? Is that your thought?

Mr. HILDEBRAND. It would be certainly my thought for the present high level of activities.

Mr. SMITHIES. I would just like to make one addition to your statement.

Representative MILLS. Mine is a question.

Mr. SMITHIES. Yes.

It seems to me that monetary policy has to be considered in conjunction with tax policy.

I think one has the alternative of raising taxes or tightening up the money supply. And I think with respect to the next couple of years, one must recall that if you keep full employment, the yield of the existing tax system goes up every year as a proportion of the national income, and it is quite conceivable to me that we could finance an increase in the security program of several billion dollars, keeping the present structure of tax rates and working with the monetary instrument.

Representative MILLS. The two policies would have to be correlated.

Mr. SMITHIES. Yes. But I think one has to bear in mind that there is the alternative of tightening up money instead of tightening up taxes. And sometimes that is the better way of doing it.

Representative MILLS. This expansion of military outlays could result in impetus to economic growth to the extent of increasing the Federal take under existing rates in excess of increases that we have had in the past in 1 fiscal year over the other.

Mr. NOVICK. I think much of this discussion is based on a misconception of the time phasing involved. If we were to appropriate obligating authority of \$10 billion more for 1959, very little of this would get spent in 1959 in the categories of defense as the President described in his Oklahoma speech. All you can do in your fiscal year 1959 expenditures is buy things that were started in 1956 or 1957.

Representative MILLS. I was a little bit concerned by the statement that both you and Professor Smithies made on that point of the drag or the lag.

Isn't it possible that a change in the policy of procurement to bring about a speedup of delivery could be made?

What have you been doing this last quarter when the Defense Department put the squeeze on you?

I have been hearing from so many of these subcontractors to the effect that they are not in a financial condition to have to withhold—or to be required to withhold collection of what is due them. I think the policy required of them heretofore has been to pay monthly.

Now they are asked to carry that indebtedness over a period of 2 or 3 months. They say they are not in financial condition to do it. That is the subcontractors.

I have some in my own State who are writing me about it. They would like us to get their money for them more quickly.

What is the Defense Department doing at the present time?

Mr. Novick. It is not that the Defense Department has done anything; the Government has suddenly changed its emphasis from appropriation authority to expenditure control in order to live with the debt ceiling.

Representative MILLS. That is what I told these people.

Mr. Novick. What that means is: whereas, you have always done your planning in terms of your total authority to commit and paid as bills were presented, now you have said you can only spend so much money in the next few months.

It is as though you were to give your son \$2,500 to go to college, and he set out to buy an automobile, and a few things like that. Thinking, "This boy is going haywire," suddenly you say, "You will get your \$2,500 next year. But for the next 3 months you are only going to get a hundred dollars a month."

That decision by you changes his relationship between commitments made and his ability to support them with current cash available to him.

Mr. SMITHIES. I think you could speed things up quite a lot, as you suggested, by simply reversing the slowdowns that recently occurred.

One thing you can speed up without long lead time is the manpower in the Army. My personal judgment is that the cuts in the Army are very serious. I would like to see them reversed. This would not take any long lead time.

Representative MILLS. I am glad to hear that, because you had led me into the position of believing that, when once we were behind in the procurement of hardware, it would be impossible for us to catch up. I was thinking in terms of the present situation, as to whether or not you meant it would be impossible for us to catch up when once we fall behind.

Mr. SMITHIES. If I gave that impression, I certainly did not intend to.

Representative MILLS. Perhaps no one else got it.

Mr. Novick. I think Professor Smithies has said you can spend this money by increasing the number of men in the Army. I am not expressing any view on the size of the Army. But that is quite a different thing than spending this money for the things the President enumerated, which are more research in missiles, additional capacity to build satellites and space stations and things of that kind. It just takes a long amount of time physically to get into a position to spend money for that type of equipment unless you want to buy old-fashioned stuff. If you want to buy next year's model or the one after that, you have to plan it now or, better, have planned it last year. You cannot plan it when the time comes.

Representative MILLS. I have heard the statement made that perhaps the Russians were ahead of us in rocketry and missiles because of their willingness, or the fact that they have a system wherein their willingness would result in the devotion of a greater amount of resources to a specific purpose than we in this country have been willing to devote to that particular purpose.

Is there any possibility of that observation being correct?

Mr. Novick. I think that would be only a very small part of it. I think the principal thing they have is continuity in their purpose, and they have moved toward it in an uninterrupted way.

Representative MILLS. In other words, your thought as you expressed it, as I understood it in your paper, was that our present difficulty has been the lack of continuity—stop and go, stop and go?

Mr. NOVICK. Go and stop would be more correct.

Representative MILLS. With respect to our defense procurement and our defense program, do you all agree that that has been a handicap?

I understand you all agree.

Mr. FISHMAN. I agree that situation has been a handicap to this country's defense effort. But an additional point which has weakened our effort, relative to that of the Russian's, has been the willingness of the Russians to enlarge their conception of the nature of national security to include such things as education and scientific training.

Our future national security programs should perhaps include both money and plans to facilitate the development of a sounder system of education so that we have the necessary scientific base to provide weapons of the future.

Representative MILLS. Have they enlarged their concept of national defense to include agriculture yet?

Mr. FISHMAN. I don't think so.

Representative MILLS. For days I have been sitting here listening to remarks about the agricultural program. I was wondering if we could get it into the defense program.

Representative BOLLING. The point I wanted to make was to be sure that it was in the record about the long lead-time being in almost direct proportion to the technological advancement of the weapons involved.

We could probably produce simple weapons in any numbers at almost any time.

Mr. SMITHIES. I do not like the implication that we don't get any weapons until the technology is available. We have security problems for this year and next year. In fact, I rather suspect that our problem for the next 2 or 3 years might be as urgent as at any time, because we do seem to be definitely behind now. This may require some expenditures on what is available rather than just waiting until the products and the latest technology appear.

Mr. NOVICK. When you are dealing with air vehicles and weapons, even if you want to increase the output of the current model, it will take you a year and a half or 2 years to get ready to make them and to spend the money. Sure you can order the materials now; you can order the additional factories now; you can order the machine tools and the tooling now. But it is just going to take a year and a half to 2½ years to get them into place to be able really to spend large moneys assembling them.

Mr. TURE. Mr. Novick, the implication of your statement is that all the currently available resources are so highly specialized that they cannot be, within a relatively short period of time, converted to other productive efforts.

Now, does your experience indicate that this is so literally true?

Mr. NOVICK. Maybe I can illustrate my point better by backing up.

At the time I prepared this statement in August, we were being invited to a \$38 billion annual national security expenditure ball.

It was my theory then, as I stated in the paper, that the tickets would cost 40 billion plus.

I think a figure like 41½ or 42 billion would probably be accurate, no matter what has happened now.

The actions you took in getting this machinery into motion does not permit you to suddenly stop such an operation.

There are termination charges, run-out charges, everything under the sun. So that in expenditure terms, you cannot in fiscal 1958 suddenly cut back to some neat figure that is going to be substantially lower than your outstanding commitments to pay.

Conversely, you cannot say now, we are going to spend more money. Because it will once again take time to get the machinery in place to spend more money. We went through that in 1951, 1952, 1953, 1954.

In 1950 we assumed that we had hit world war III, and we made appropriations accordingly. Those appropriations did not get spent in 1951. They did not get spent in 1952. When we started to spend them was in 1953. The big expenditures we made in 1951 were for uniforms, food, and men, the kind of things you can get rather quickly. But when it came to the heavy equipment, we did not start getting it for several years. And that is inevitable.

Representative MILLS. Your point is that what we are behind in now represents what you describe as heavy equipment?

Mr. NOVICK. Yes.

Representative BOLLING. I would have to insert disagreement on that. I think we are behind in practically all fields.

Mr. NOVICK. I would say we can catch up in numbers of men simply by increasing the draft call, and we can increase expenditures if we want to spend it on salaries and food and clothing.

Representative MILLS. We can catch up rather quickly on the men and the shoes and the clothing and the food. But your point is that we cannot catch up quickly on the heavy equipment? Including missiles?

Mr. SMITHIES. In the absence of the missiles, we can catch up by making our manned bomber force more secure.

We can construct more SAC bases as an interim measure while the missile program is getting underway. Do you agree with this?

Mr. NOVICK. This gets into difficult discussion territory.

Mr. SMITHIES. I mean I do not like the implication that we remain insecure for 2 or 3 years while we wait for these other things. It seems to me there are a lot of things that we can do now and they cost money.

Mr. NOVICK. Yes, but you will not have the results of them until sometime in the future. You have got to find out where you are going to put the bases. If Congress permits you to put them there, you have got to award contracts; you have got to pour concrete. And you only get this base sometime in the future. And the real expenditures that you make are sometime in the future, not today.

Mr. TURE. I am sure, Mr. Novick, you have heard as the rest of us have, that our apparent lag behind the Russians in missiles and rocket development is attributable to poor organization of our effort; that instead of a constructive exploration of alternative channels that might be pursued to advance attainment of intercontinental ballistic missiles, we have had rivalry instead which has served to undercut our efforts.

Now, some of the people we have heard here during these hearings have indicated that another important ingredient of the Russian successes, aside from the continuity of their efforts, has been their

very determined organization of resources on a draft basis, which as Mr. Mills pointed out, we have not been sufficiently impelled to undertake ourselves.

Are you suggesting that we could not do anything by way of accelerating the catching up in this program by improvement in the organization of our resources?

In other words, do you mean that all those resources that go into the development of an intercontinental ballistic missile are now being used optimally?

Mr. NOVICK. I think you have asked about 7 questions, not just 1.

There is no question but what we can do more, and there is no question but what we can speed up. The real problem is whether we can speed up in 1958 by spending money in 1958 when we forgot to spend money in 1952 and 1947.

The kinds of things that are involved here do not come off a shelf; either in terms of research, product design, or application development: these things take time. You can multiply your efforts and get more. But there is a point at which the marginal return from the effort falls very, very sharply.

Mr. TURE. May I interrupt to make this comment?

We have heard a lot of statements to the effect that in view of the present stage of our development in the rocket and missile programs, and in view of the fact that all of the brains and technology available are now committed to various types of research and developmental programs, that we can spend more money, but we are not going to get anything more by way of results.

I would like to turn that around a little bit and suggest that since all these relatively specialized resources are so committed, if we are to get any more results, it will necessarily involve a very substantial increase in expenditure.

In effect this situation fixes a very high marginal cost for any incremental product. Now, if we determine we want the product, all it seems to me to boil down to is that the greater the immobility of the resources involved and the more highly they are specialized, the greater the cost for any small increment of result we must be willing to meet.

But not that there is no physical possibility for any such increment.

Mr. NOVICK. Again I think you are imputing a magic to this marginal unit that you are going to buy at a very high price.

What I am simply trying to say is that by deciding now that you do not like the 1958 Buick, you want the 1959, or the 1960 Buick, you will have to wait until 1959 or 1960. You cannot get it in 1958, because there will have to be a lot of work done to determine what it is going to be, to tool up and then to make it.

Representative MILLS. Now, Mr. Novick, it occurs to me that it is not a question of us not liking the 1958 Buick and wanting the 1959 Buick now; what it is that we do not like now is that we do not have the 1958 Buick. Now, what can we do to get the 1958 Buick in the year 1958?

Mr. NOVICK. Do what General Motors did; start in 1955.

Representative MILLS. Maybe that is the answer.

Mr. HILDEBRAND. My history of General Motors shows that they were in competitive difficulty with the Buick some years ago, that they did cut the lead time on the redesign of the car almost in half, and put in a new kind of windshield and a number of other changes.

And now, would you hold that the lead time from conception to realization cannot possibly be cut? I think that is the question we are really up against here.

Mr. Novick. It can be cut. And in various degree, depending on the state of the art change you are trying to introduce. If you will recall, in the Buick you referred to, the prime trouble was it was out of phase with everybody else's car. So that the change back was not a major innovation. It was simply to jump on the bandwagon and put into the new Buick what everyone else had done.

If instead they decided they wanted to jump ahead of everybody else, I doubt that they could have done it.

(Mr. Novick supplied the following additional information for the record:)

LEAD TIME IN MODERN WEAPONS

David Novick, chief, cost analysis department, the RAND Corp.

Many people seem puzzled by our inability to launch a satellite the day after sputnick and see each passing month as a measure of United States inadequacy. Without in any way touching either scientific or national security matters, this paper deals with the fundamental reason for this situation—lead time or the weeks to years required for the administrative and physical actions in translating wanting into getting. The present picture surely presents one thing—we did not decide to launch a satellite early enough. It does not necessarily mean we are behind in anything more than that.

The experience should teach us a few things. Among them: the importance of lead time; continuity of efforts, even on a relatively small scale, buys more than spasmodic large bursts; and there are some things for which money cannot fully substitute, like time. All of that is again a way of saying "lead time."

It seems strange that it is so difficult to explain the importance and the length of the lead time in research, development, procurement, and production of military aircraft and guided missiles when everyone is familiar with the long lapse of time that separates the writing of a contract from the completion of buildings we see in civil life. Take a medium-sized city office structure, say 10 or 15 stories tall. From the time that an owner-to-be signs his name to a contract until he takes possession a year, a year and a half, 2 years or more may elapse without anyone considering the delay at all remarkable.

A big, modern office building is an impressive addition to a local community, but it is not an accomplishment that anyone would propose to measure in terms like those to be applied to sputniks, ICBM's, and space-travel equipment. Raising the capital to pay for a big office building may not be exactly easy, but the details rarely receive the attention given budget proposals for advanced military equipment.

An office building is not a very complicated structure, in comparison with modern military aircraft and guided missiles. Standard grades of steel are used for beams, reinforcement rods, and mesh. A large number of suppliers stand ready to sell ready-mixed concrete, sheathing materials for the exterior, sash, flooring, roofing materials, and every other part of the structure. The most complicated items in the structure probably are the elevator and air-conditioning systems. Still, it takes a year to 2 years or more to complete an office building.

Contrast this with the design and construction of a new kind of military aircraft or guided missile. If the military item is to fulfill the expectations of its designers, it must outperform anything existing, and, hence, the engineer must go beyond his own experience or the experience of anyone else. The money-market problem is different, too. The need for the new aircraft or missile must be justified to 8 or 10 echelons of executives, first military and then civilian. If it survives this review it might, by chance, be just in time when the Federal money market—budget appropriations—is open, once a year. If design should be delayed

or if review is too protracted, the money market may be closed and no important action toward funding it can be taken for another year. At that time it will have to compete with other designs for available funds.

The steel used in its construction does not come from stock. The great structural strength at temperatures approaching white heat needed in high-performance engines requires special steel alloys that are mixed and melted to order. The words "special" or "made to order" have to be applied to almost everything that enters into the construction of modern, high-performance military vehicles. Nothing can be pieced together, cut-and-try; the weight and performance dimensions of every component have to be computed long before construction begins.

An engineer designing military equipment might object to what I'm saying on the ground that it understates the great differences in level of difficulty in designing and constructing a large but simple structure, like an office building, as contrasted to a large, precision-made, complicated structure like a modern military aircraft or guided missile. He would be right; I have understated the differences. I have also failed to explain how these differences in level of difficulty create differences in the time required to solve the technical problems involved. This will always be nearly impossible to explain in words; to demonstrate these propositions properly would require a behind-the-scenes tour.

I'll have to be satisfied if I can persuade you that if great patience is needed in awaiting the completion of a simple structure like an office building, even greater patience will be needed awaiting the completion of the first military aircraft or guided missile of a new series. Neither of them can be had off-the-shelf today just because we want them now.

Modern military demands are complex and the processes of satisfying them are complicated and time consuming. Over the last century the number of steps and length of time required for the fabrication of complete products has increased manyfold. The machine-to-make-the-machine has played an increasingly important role in our method of production. Specialization, mechanization, and automation, characterize modern industry, and although they speed up the processes and increase the output at the point of final assembly, if we go back a few steps in the method we immediately encounter time-consuming and investment-demanding requirements.

These problems shift the burden from an individual supplier to the total economic system and make long periods of time necessary for the accomplishment of tasks. When we stand at the end of an assembly line in an automobile or washing machine plant, we see only the large volume of finished products turned out each day. The same thing would be true at an aircraft factory or tank arsenal. In any of these cases, what we see is the pinnacle of a huge pyramid of effort which brings purchased materials, machinery, and parts together. Each one of these components is in itself a small pyramid constructed from the tops of innumerable other pyramids of production.

THE TIME DIMENSION

We lose sight of the size of the pyramid at the point of final assembly and are almost unaware of the pyramidal structures involved at each succeeding lower layer. The final product has a time as well as quantity and quality dimensions and each of the subpyramids has in itself a major time dimension. Since it is impossible to erect any one of them without the appropriate foundation, the time measure must be applied not only to the apex of the pyramid, but also to each one of the building blocks which support the final product.

We are made aware of both the long-time and investment-demanding nature of modern production by announcements like a 5-year, billion-dollar plan for investment by an automaker; an 8-year program involving \$600 million for the expansion of an oil company. However, we rarely have an occasion to translate these magnitudes of time into the automobile or gasoline which we use. We expect the automobile to be on view and ready for delivery from the dealer's window, and we know that we can get the gasoline for it at the nearest pump. As a result, we find it hard to take into account the years that went into the accomplishment of the delivery which for us is a matter of moments.

We get a real taste of the lead-time process when we undertake to repair or build a house. Particularly if we build for our own account and start with the acquisition of the lot, the drawing of the plans, the letting of the contracts, and so on until the day of occupancy. That experience makes us aware of the 5 to 18 months involved in the process. Nonetheless, we tend to view it as something special and do not draw an analogy from that experience to the time required for making automobiles and washing machines and never apply it to equipment like military aircraft and missiles.

A moment's reflection will make us immediately aware of how very simple a house is when compared to a ballistic missile. Even the latest and most radical improvements in house design or equipment represent a small change from yesterday when compared with ballistic missiles which are just now being created for the first time. V-2's were used by the Germans more than a decade ago. The fact that they are new to the arsenals of the United States and U. S. S. R. in 1958 is in itself a major measure of the nature and span of lead time. In the ballistic missile the newness is striking and leads us to forget that the changes in aircraft, guns, and vehicles are almost equally great. Even the newest color television set represents a minute step forward in comparison with the economic and time dimensions in equipment for today's soldiers.

THE RESEARCH DIMENSION

In large measure the improvements in today's products are innovations rather than inventions. That is, the new idea was researched and invented many years ago; the thing that is new to us represents development and application of an old idea as identified in comparing the V-2 to the IRBM and ICBM.

The point can be easily made for those who can recall the pushbutton or automatic gearshift of the Mitchell and Premier automobiles which were on the road around 1920. It was 25 years or so before those ideas were developed for general application to passenger automobiles. Much the same history applies to electric appliances, radio, television, building materials, etc.

Research and new ideas are important in all products and processes, but in the nonmilitary field there is a very real requirement to prove out the idea and test the market before going into production. In the military field, ability to surprise the enemy or not be surprised by him is paramount, so new ideas must be continuously sought and brought into production without opportunity to prove out the fabrication and operation problems.

Military requirements therefore must have a much broader research base than is required for commercial products. The activities must include not only new ways of doing a job—aircraft, missiles, vehicles, etc.—but also all of the materials, components, and processes involved in producing the new devices. In all of these, continuity is a paramount consideration lest a research discovery in one field be too far ahead of the essential supporting fields to permit the quick development and application of the new idea.

DEVELOPMENT AND APPLICATION

New scientific discoveries or inventions usually are just the beginning of a large number of steps required in developing a product and then finding ways of applying the invention to either established or new ways of doing the job. Again, a bit of history may facilitate exposition. At the Columbian Exposition a primitive zipper was displayed. By 1912 patents on the modern zipper had been granted in England, Belgium, Switzerland, and the United States. World War I doughboys bought several million zipper money belts. Yet it was not until 1940 and later that zippers came into widespread use on both consumer and industrial products.

One's first reaction to the time it took to get the zipper into widespread use are either lack of financing, salesmanship, or other commercial and financial considerations. Those factors played a small role, but most of the years were required for product development and application engineering. And, product development and application engineering are practically always major factors in getting from discovery to utilization.

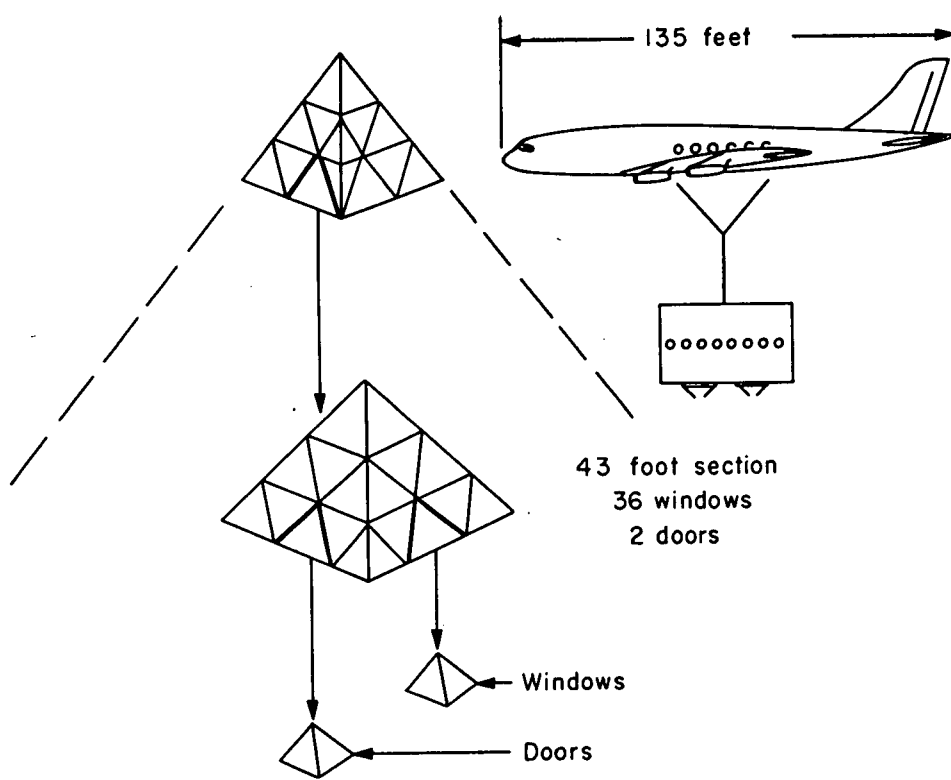
In possible new military products the time required must be made as short as possible. Shortening it requires men and resources, but it is important to remember that no matter how much money is spent it still takes time. As in the case of research, continuity of effort is a prerequisite if the time requirement is to be kept reasonably short.

PRODUCTION

Just as scientific discovery or invention is the prelude to development and application engineering, so also the successful completion of the second set of steps is just the beginning of the manufacturing process. The opening paragraphs referred to the 5 to 18 months required from start to finish for a private residence. Let us now take an oversimplified look at the time and integration requirements for a modern new commercial airplane. Bear in mind that research, development, and product engineering time are not included.

Once production has been started, delivery can be made in a year or two. But, the start of production requires two or more added years. Many of the tools take 6 months or more for design and as much additional time in fabrication. High specification materials, formed in special shapes, require as much as a year and sometimes more for initial deliveries. These are typical of the items which go into the years preceding production. And since the final product is the sum of its parts, the item with the longest lead-time will set the absolute minimum time for final delivery. Men, money, and desire can speed things up, but in the end there is a fundamental physical requirement for time. In equipment like transport aircraft, it would be a fortunate situation indeed in which the procedure could get this below 2 years.

Some idea of the magnitude of things to be done may be had from chart I. That illustration emphasizes a relatively simple and small part of Boeing's newest jet transport. Applying one's imagination to that illustration will provide one measure of the magnitude of the total job involved.



Assembled at main factory from own production and purchased parts and materials

Includes section made by vendor at vendor's factory which requires:

23 major assemblies

510 sub-assemblies

4000 different parts

10,000 different tools

Chart I—Pyramid of production in commercial jet transport

SIMPLE ADDITION

Using these oversimplified illustrations, we can now project an absolute minimum time requirement for getting new military equipment embodying the latest scientific developments.

Basic research

Assumed to be continuous and therefore not included in this time charge. If the basic research effort is not adequate, the time penalty is likely to be immense.

Product research

Again, it is assumed that research in materials, components processes, and tools is continuous and adequate. Given that favorable assumption, 2 years would be an absolute minimum; 3 to 5 years more likely for advanced equipment.

Product development

With luck, this time requirement might be held within the research cycle, but it is more likely to mean at least 1 year more.

Application engineering

For refinements of existing equipment this need not be an added time demand. For revolutionary new equipment, 1 year more would be a minimum.

Manufacturing

Assuming no additions to plant and equipment, 2 years would be a short time to get into production.

TABLE I.—*New equipment steps and time required, in years*

	Basic research	Product research	Product development	Application engineering	Manufacturing	Total
Optimistic.....	0	2	1	1	2	6
Possible.....	0	3	2	2	2	9
More likely.....	0	4	4	2	3	13

Exceptions to the above can be cited, both wherein less time than the optimistic illustration and many more years than the more likely number were required. Precise accuracy is neither possible nor an objective here. If this play on steps involved and time to take them conveys the idea that military equipment involving new inventions or discoveries requires something more than money, the point will have been made. It takes years, too.

THE GOVERNMENT MONEY DIMENSION

For the military to get the new equipment, another time factor must be taken into account—Government procedure for approving expenditures or the Federal budget. Probably nothing seems more simple and obvious and then turns out to be more complex and mysterious than the process by which the United States Government grants authority for a military department to spend money. Since the time to get new military equipment is our interest here, let us neglect the procedure and emphasize only the effect this requirement has on the number of years involved.

Assuming adequate research in the basic sciences, the first step is product research or the design of equipment which will utilize the promises of basic research. Although not large of itself, when the fruits of science become as plentiful and expensive as they are today, the quantity of funds traditionally made available becomes inadequate. If we start today in 1958 we can increase funds in the budget for fiscal year 1959.

Even though the makeready is relatively simple in this area, competent personnel must be found, hired, moved to the work place, and put through the security-clearance process. All of that takes time—a year would be good going. If competent management is available and has space, equipment, supervisory employees, etc., that time requirement may not be encountered. But, if new sources of capability are to be added, something like another year should be added. In short, if Congress acts by July 1958 we can expect things to get underway by summer 1959, with luck, and by early 1960 under more usual conditions.

The foregoing failed to take into account the time necessary to get the proposal before Congress. It was omitted because it was assumed that in a crisis, like the present one, normal procedure would be waived.

Under standard operating procedure the item on which Congress acts in 1958 had to originate in the lower echelons of the sponsoring military department about 2 years earlier. From its inception, it would have traveled up a series of review steps until incorporated in the department's budget. Even when on the top of this ladder, a cut in department budget could either curtail or eliminate the amount for the item.

The military department's budget proposal then moves to inclusion in the Department of Defense proposal. Again, the item may be cut or eliminated specifically or become a casualty in an overall departmental cut. A similar process then takes place when the Department of Defense proposal is presented to the Bureau of the Budget. It is repeated once again at the President's review which for our fiscal year 1959 item was at the end of 1957.

From the foregoing, one may picture both the possibility of adoption and the time required in getting new concepts from the idea to the accomplishment stage. Although not strictly additive, the same time requirement can be applied to the Government time dimension for each of the major steps in table I.

Discussions of Government spending are always confused by lack of precise distinction between new obligating authority and expenditures. They are two different things: "New obligating authority—the right to spend" and "Treasury expenditures—the actual disbursement."

Differences in timing for each for major equipment requirements for a military department are shown in chart II. Timelag becomes identifiable when one observes the Korea crisis budget expansion in fiscal year 1951 and 1952 against the expenditure peak in 1954 and 1955. Again, the 1954 and 1955 budget balancing exercises produce the downturn in fiscal year 1956 and 1957 deliveries despite the higher amount of new obligating authority granted in those years.

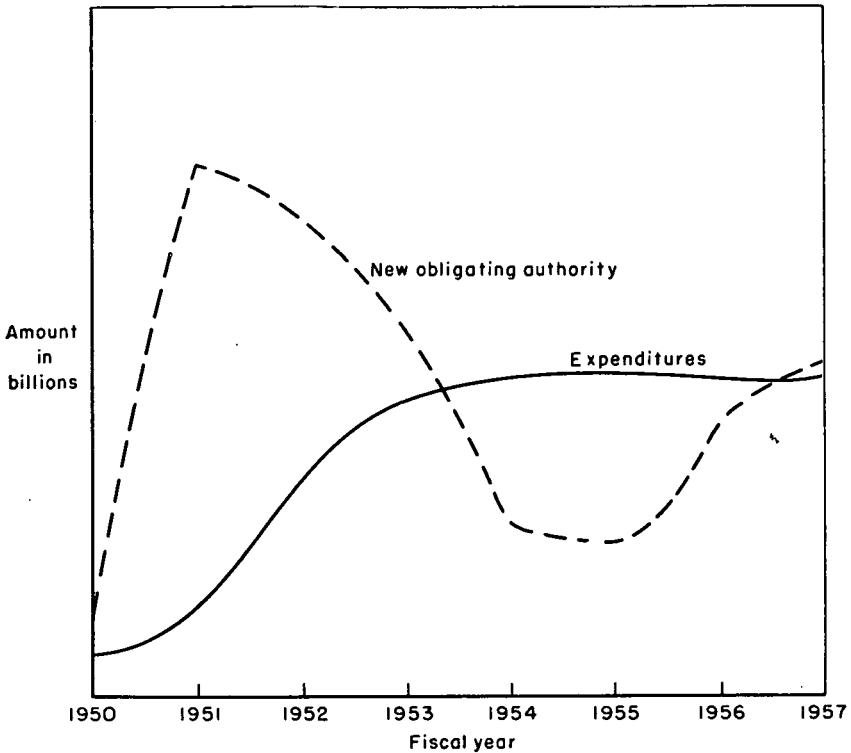


Chart II — Comparison of military equipment new obligating authority and expenditures by fiscal years 1950 through 1957

Source: Federal Budget Documents 1950 through 1956; 1957 estimated

STOP-THEN-START, START-THEN-STOP

At the time of the Korean difficulty, we reacted as though world war III might be starting, and that produced major changes in the new obligating authority budget. These and expenditures in fiscal years 1950 through 1957 are shown in chart III. As the curves show, expenditures lagged substantially behind the granting of authority to spend at first, and later expenditures moved to the front. If these data are compared with chart II, it will be noted that the rate of change is not the same in both cases. That occurs because chart III covers every and all kinds of expenditures, including pay and subsistence, and chart II is major equipment only. Lead time is a major factor in military equipment; it is much shorter in the case of military manpower expenditures.

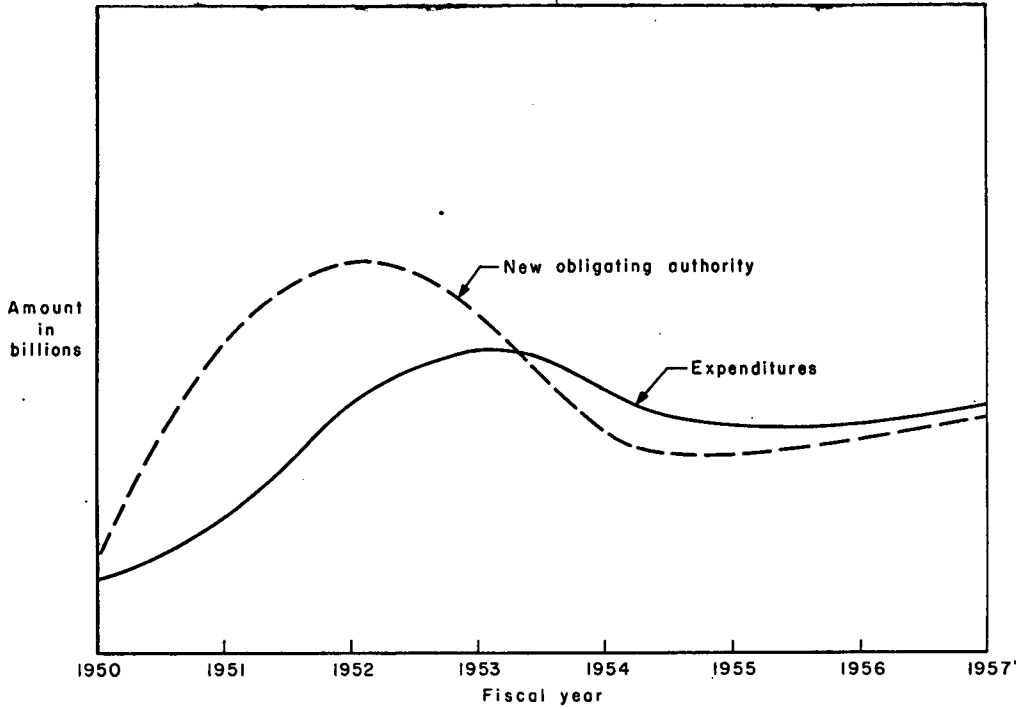


Chart III — Comparison of total new obligating authority and total expenditures for Dept. of Defense by fiscal years 1950 through 1957

Source: Federal Budget Documents

Getting back to chart III, we can see the impact of the Korean armistice in July 1953 on fiscal year 1954 and 1955 new obligating authority and expenditures. At this point it is important to go back to chart II which treats of major equipment only. It will be noted that equipment expenditures continued higher in 1954 and 1955 despite cuts in new obligational authority just as they expanded slowly in 1951 and 1952 when new obligational authority was increased sharply. Both of these situations are the result of lead time. Time required to get production underway is well illustrated by the 1951 through 1954 pattern. It is what we can expect again in 1959 through 1961.

To be sure, we start from a higher base now, but the rate of acceleration in finished articles will follow the same expansion pattern if we buy goods that have been researched and developed. If we vote to expand research and development, we can anticipate a similar expansion pattern regardless of how much money is appropriated. Knowing it gets monotonous, I nonetheless am forced to repeat—money cannot be fully substituted for time.

When we start, as we did in fiscal year 1951, it takes time to get going. When we stop, as we did in 1953, it takes time to bring things into order for the slowdown. When we start-then-stop and stop-then-start as we have been doing since 1950, we shake, jostle, and jolt our entire productive process from laboratory through factory. The resulting economic costs are very real and the effect on personnel in military, Government, industry, and scientific pursuits borders on the catastrophic.

Professor Smithies (Harvard) summed it up in recent testimony before this committee—" * * * something is wrong with our method of budgeting for defense. The root of the trouble is that political democracies have not yet learned to make the sustained defense efforts that are now needed. While this may be in part an inevitable price we must pay for democracy, these are various features of the budgetary process that contribute to the lack of support for an adequate defense effort.

* * * * *

"The present procedures grow out of the requirements of an earlier and simpler period of military history. If the Army consists mainly of armed soldiers, the budget can be considered in terms of the number of soldiers, and supplies, arms, and ammunition per soldier. That still remains the central idea in present budgetary procedure, however inappropriate it may be in the day of the hydrogen bomb and the ballistic missile" (p. 552).

CONCLUSION

Military equipment today must embody not only the latest development efforts of our laboratories, but also must be projected in terms of the most promising results now being made available by research. That means producing and learning to use complex advance equipment which imposes a heavy time demand at each step in the process from dreaming up the idea to putting it into military use. In accomplishing these objectives, economic resources are extremely important but cannot be fully substituted for time. Our military budget record since 1950 makes that clear. The large appropriations made after the Korean crisis in fiscal years 1951 and 1952 did not produce a significant expansion in deliveries until 1953 and 1954.

Recent developments abroad have led us to once again want a greatly improved weapons' capability. There is no question that as a nation we want and deserve it. However, as this paper has tried to demonstrate, we cannot get things today just because we want them now. Both the nature of our wants and the administrative processes we use in satisfying them require that in the area of complex equipment like satellites, ballistic missiles, and space-flight vehicles, we recognize lead-time and take account of it. A start-then-stop, stop-then-start type of spending policy further complicates the already complex problem of lead-time in military equipment and makes it that much more difficult to fill today's requirements.

Representative MILLS. We thank you, Mrs. Fishman and gentlemen for participating in our compendium. We appreciate your papers.

We appreciate your appearance today in the panel. We thank you very much for being here.

The committee will stand adjourned until 10 o'clock in the morning in this room.

(Whereupon, at 3:40 p. m., the subcommittee recessed, to reconvene at 10 a. m., Friday, November 22, 1957.)

FEDERAL EXPENDITURE POLICY FOR ECONOMIC GROWTH AND STABILITY

FRIDAY, NOVEMBER 22, 1957

CONGRESS OF THE UNITED STATES,
SUBCOMMITTEE ON FISCAL POLICY,
OF THE JOINT ECONOMIC COMMITTEE,
Washington, D. C.

The subcommittee met at 10 a. m., pursuant to recess, in the Old Supreme Court Chamber of the Capitol Building, Representative Wilbur D. Mills (chairman of the subcommittee) presiding.

Present: Representative Wilbur D. Mills; Representative Bolling; Senator Ralph E. Flanders.

Also present: John W. Lehman, acting executive director; Norman B. Ture, staff economist.

Representative MILLS. The subcommittee will please come to order.

This morning we continue consideration of specific Federal spending programs in connection with our study of Federal expenditure policy for economic growth and stability. Yesterday afternoon we had what I believe was an extremely constructive discussion of our national-security program. This morning we turn to a very closely related field of Federal expenditures—foreign aid.

In discussing national security yesterday, I stated that the subcommittee's attention to this program did not imply a belief by the subcommittee that defense spending should be expanded or contracted on the basis of its effects on economic growth and stability. I think a similar statement is called for in connection with our foreign-aid expenditure.

The subcommittee recognizes that considerations other than those of the Employment Act are necessarily determinant in formulating our foreign-aid program. Nevertheless, we cannot afford to ignore the consequences of these programs for the prospects of the American economy for sustained growth and stability.

Each panelist will be given 5 minutes in which to summarize his paper. We will proceed in the order in which the papers appear in the compendium, and we will hear from each panelist without interruption.

Upon completion of the opening statements, the subcommittee will question the panelists for the balance of the session. This part of the session in preceding panels has been informal and we hope it will be equally so this morning.

All members of the panel should feel free to participate—commenting on papers presented by other panelists, on subcommittee members' questions, and raising questions of their own.

First to be heard this morning is Mr. Robert E. Asher, of the Brookings Institution.

Mr. Asher.

STATEMENT OF ROBERT E. ASHER, THE BROOKINGS INSTITUTION

Mr. ASHER. Included in the paper bearing the neutral-sounding title, "The Foreign-Aid Expenditures of the United States" are various interpretations and recommendations. These expressions of opinion represent only my personal views. They do not necessarily reflect the views of the Brookings Institution and they should not be attributed to that agency.

A general summary of my paper is already available in the final two pages of the printed text. Perhaps I ought merely to repeat here the measured words I used there, but I shall try instead to sharpen the argument.

1. Foreign aid has not been a serious burden on the American economy. The volume of aid extended could be increased substantially without adding noticeably to its domestic impact.

2. Although foreign assistance is comparatively unimportant to the American economy, it is a significant factor in the world supply of dollars, and it has significant effects on world trade in particular commodities, most notably agricultural commodities that are also exported by other friendly nations. In practice, the aid programs of the United States are oriented to a greater extent than necessary in the direction of expanding American exports. In this respect, they have been in tune with a worldwide desire to solve economic problems by protecting domestic markets while seeking to expand foreign markets.

3. In recent years, the bulk of the aid furnished by the United States has been grant aid to equip and support the military forces of friendly nations and thereby discourage aggression. The objective is not to help our allies improve local standards of living, or bridge a gap in their balance of payments, or enlarge their capacity to service foreign loans. The future of military aid as an item of Federal expenditure, therefore, does not depend primarily upon economic considerations, but upon an assessment of the nature of the Soviet threat and of the points at which armed resistance to aggression is most important.

4. The allocation of American resources to build up the military establishments of other nations carries certain risks. For each of these hazards, there are analogous hazards in the field of economic assistance. It nevertheless seems to me that the risks would be better distributed if American foreign aid were not concentrated so heavily on military assistance.

5. Much of the economic aid, moreover, has been devoted to maintaining consumption instead of increasing investment. Entirely too little has been allocated to the permanent improvement of standards of living where the economy has for long been at a bare subsistence level and where, because of the relentless pressure of population, considerable investment is required merely to maintain present standards.

6. The task in south Asia is especially urgent. India, with the largest population of any nation in the free world, has been trying desper-

ately to give more momentum to the development process without resorting to totalitarian means. To the north and east, Communist China has been proceeding, by the more ruthless tactics of totalitarianism, and at fearful cost in human life and dignity, to invest perhaps twice as large a proportion of its gross national product as India. Unless India overcomes its present serious difficulties the outlook for democracy, according to many experienced observers, will be considerably bleaker.

7. This gloomy forecast does not make it our responsibility to enable India, without any sacrifice in its current living standards, to match the Chinese Communist rate of investment. The problem of how much aid and to whom is clearly more complex than that.

8. In military aid, the payoff is fairly immediate and can be calculated, in a rough way at least, in quantitative terms. A given volume of aid will provide strength at strategic points in the form of additional ground forces, trained pilots, and naval defenses. The return from this investment can be compared with the returns from alternative military investments. By contrast, the payoff on aid for economic development may not become apparent for a long time, and statistical measures provide less meaningful guidance. Gross national product, per capita income, and other economic indexes in the recipient country should move upward, but the aim is not to maximize these. The aim is to help create or preserve self-governing, self-respecting nations whose peoples are prepared to live in peaceful association with other nations. This aim will be somewhat easier to realize if economic conditions are improving than if they are not.

9. In countries in which reasonably promising development plans and projects have been formulated, we should therefore do substantially more than we have been doing to translate them into reality. To obtain a respectable return on our larger investment will require a more artful merger of economics, politics, and human understanding than we have yet exhibited.

10. In light of the exigencies of foreign policy, I particularly question whether it was wise to put development assistance entirely on a loan basis and to reduce the amount available for the purpose. The decision does not appear to have been reached through studies of the debt-servicing capacities of the underdeveloped countries or of the rates of progress that would best serve the interests of the free world. It was based rather on strong feelings that grants-in-aid should not be allowed to become a normal feature of international economic relations. But if the resources of the recipient country are likely for some time to come to be inadequate for purposes of capital formation, and if a grant would be put to effective use, it might be better to extend grant aid.

11. The lending of local currencies accumulated in payment for previously received agricultural or industrial commodities provides fresh opportunities for joint programming by the United States and the borrowing nations, but such loans neither add to the already-available real resources of the borrower nor help it to obtain additional capital equipment from abroad. Private investment, although it has increased markedly in recent months, cannot be expected to move in accordance with the requirements of American foreign policy.

12. One encouraging evolution in American policy since the publication of our papers has been Representative Judd's announcement

to the United Nations of a United States plan to increase the United Nations technical-assistance program from \$30 million to \$50 million and to establish, in addition, a \$50 million international fund to finance resource surveys, training facilities, and certain other prerequisites for capital investment. This move represents a very small but welcome step in the right direction. The need for larger domestic defense expenditures should not be allowed to obscure the equally apparent need for increases in foreign economic assistance.

Representative MILLS. Thank you, Mr. Asher.

Our next panelist is Prof. Robert E. Baldwin, department of economics, University of California, Los Angeles.

You are recognized, Professor Baldwin.

STATEMENT OF ROBERT E. BALDWIN, PROFESSOR, DEPARTMENT OF ECONOMICS, UNIVERSITY OF CALIFORNIA, LOS ANGELES

Mr. BALDWIN. My name is Robert E. Baldwin, and I am an associate professor of economics at the University of California in Los Angeles.

Three significant postwar developments condition any analysis of America's foreign-aid program. First, the security of the United States has been threatened seriously since World War II by the rise of a powerful group of Communist nations which are hostile toward this country. Moreover, it is increasingly apparent that the underlying political struggle between the western capitalistic countries and this Communist bloc may continue for many years. Second, a number of relatively poor nations which formerly were alined closely with certain western nations recently have attained political independence. These countries as well as most of the rest of the underdeveloped world are undertaking ambitious programs to raise their living standards. Finally, several of America's western allies have been plagued by international financial problems in the postwar period.

The major method by which the United States has attempted recently to meet the problems connected with the first development is to provide direct military aid to our allies. Unfortunately, how large this assistance should be is a subject about which an economist cannot contribute any special knowledge. He might emphasize, however, that we should be careful to provide this aid only when and where the military strength achieved by the aid is clearly greater than that attained by an equivalent expenditure for military expenditures at home. Another means of answering the challenge of Communist expansion, particularly by peaceful methods, is by providing foreign economic assistance. The foreign-policy problems arising from the desire of poor countries to accelerate development and from the balance of payments difficulties of some of our western allies may also be solved partly by economic aid.

It is my opinion that we are not using economic assistance to a sufficient extent to meet the problems that have arisen from these three postwar developments. This applies with particular force with respect to our relations with the underdeveloped countries. In many of these poor countries there are beginnings of a profound revolution in traditional social, political, and economic ways of life that is closely related to their desires to raise living standards. To minimize the signifi-

cance of this change for the United States would be to take a dangerously shortsighted view of our interests.

Although the development efforts in most of the poor countries are not being undertaken within the framework of minimal government intervention that existed during the early industrialization of Great Britain and the United States, these programs do follow practices considerably clearer to those utilized by modern capitalistic states than to those adopted by completely socialistic countries. Furthermore, the existing governments in these nations, although by no means always as democratic as we would like, are reasonably acceptable to the United States in terms of our foreign policy objective of seeking to maintain a peaceful, free, and stable world. Consequently, the interests of the United States would seem to be furthered if these countries are successful in their development efforts. For, if they fail, unstable political conditions in these countries and perhaps the adoption of complete state planning techniques are distinct possibilities. Neither of these outcomes is in the interests of the United States, since such conditions are likely to require the continued maintenance of large appropriations for military purposes.

At the present time neither the volume nor the distribution of America's foreign economic aid is such as to make a significant contribution in accelerating development in most poor economies. Furthermore, it is unlikely that these countries can count on receiving from private foreign sources the relatively large volume of capital assistance, skilled labor, and technological know-how that characterized the development of such countries as the United States during the 19th century. America is beginning to return to its important private capital-exporter position of the 1920's but even this will still not fulfill the role that Britain played in the 19th century.

It should be clearly recognized, however, that foreign economic assistance to poor countries is a much more risky endeavor than the economic assistance made available to Western Europe shortly after the war. Western Europe already possessed such requisites for development as a large body of skilled workers and managers, a well-established set of economic and social institutions conducive to growth, an economically motivated population, and highly developed natural resources. The main difficulty in Western Europe was a deficiency of capital goods as a result of the war. Helping to restore their capital stock by means of foreign economic aid not only quickly restored prewar levels of production but provided the basis for sustained growth.

In the poor countries the situation is quite different. These nations not only suffer from a deficiency of capital but also are blocked from expansion because the efficiency of the people as productive agents is low and their natural resources are poorly utilized. To break out of the vicious circle of poverty in which they have become enmeshed requires more than the provision of capital funds; it also requires a modification in the cultural patterns that will be conducive to development.

Because of these conditions in the poor areas, the likelihood that economic assistance will not be employed fruitfully is much greater than in the European case. Therefore, if aid is given to the poor nations, it should be carefully screened in terms of the potential productivity of the various projects proposed by these nations. In other

words, we should insist upon well-planned development projects, and we should evaluate carefully these projects in determining the volume and regional distribution of foreign economic assistance. In general, the purpose of any economic aid should not be directly to provide more consumption goods but to assist these countries in reaching a level of development at which they can then sustain a growth process themselves. Consistent with this emphasis on economic productivity, most of the aid should be in the form of loans. Two exceptions to the loan principle, however, should be economic aid that is mainly tied to military aid and technical assistance. The latter type of aid also should be increased significantly.

It is difficult to suggest a figure for the volume of foreign aid to the poor areas that might be appropriate. However, because of the degree of backwardness and underdevelopment prevailing in these countries the volume of aid that they can productively absorb in any period is strictly limited. If aid is too large it will become largely a form of relief. On the other hand, if it is too small it will also be but a form of relief, since it may be insufficient to establish a process of sustained growth.

As a result of these considerations and an evaluation of the consequences if the poor countries fail in their development plans, it would seem to me that additional annual foreign assistance to the poor countries of about \$1½ billion for a 5-year period would be well worth the risks involved.

Representative MILLS. Thank you, Professor Baldwin.

Our next panelist is Prof. Martin Bronfenbrenner, department of economics, Michigan State University.

Professor Bronfenbrenner, you are recognized.

STATEMENT OF MARTIN BRONFENBRENNER, PROFESSOR, DEPARTMENT OF ECONOMICS, MICHIGAN STATE UNIVERSITY

Mr. BRONFENBRENNER. All I can do here orally is repeat some half-dozen of the policy suggestions of my paper. I must omit most of the supporting argument, and most of my doubts and qualifications. I apologize for appearing much more cocksure about controversial matters than I actually feel.

1. Foreign aid expenditures will have to be maintained, and probably increase, less as evidences of humanitarianism than as weapons of cold war and competitive coexistence. Expenditures can be administered so as to buy, if not friendship, then benevolent neutrality. More important, we cannot cut them off without inspiring hostility, now that the Soviet bloc is in the aid business, too.

I noted in yesterday's paper, for example, that Egypt, which is in some economic difficulties as a result of the Suez case, has just received \$175 million in economic aid from the Soviet Union, ostensibly without strings attached.

2. The volume of our foreign economic aid should fluctuate in the opposite direction to business conditions in this country. In particular, they should fall when we have overfull employment and inflationary pressure at home. The volume of this aid is probably never likely to be large enough to exert important direct influence on domestic economic conditions, but foreign aid generates a political multi-

plier effect on Government spending generally. Whenever one wants to cut domestic expenditures benefiting Americans, he has to cut foreign expenditures benefiting foreigners, and probably cut them first.

3. Our foreign-aid expenditures should take the form of grants rather than loans. We can hardly expect repayment of the bulk of our loans. Haggling about repayment schedules, interest rates, and so on serves mainly to dissipate the good will generated by the aid. As Professor Nurkse of Columbia has said:

Interest payments from poor to rich are now, it seems, not only basically unwanted by the rich countries but indeed are felt to be somehow contrary to the spirit of the age.

4. Our procedures in granting foreign economic aid might be patterned to some extent on the procedure of educational foundations in distributing research grants. At the same time, we should not expect hat-in-hand mendicancy from foreign beneficiaries.

A possible procedural suggestion is this:

Each year American representatives abroad should formulate aid requests on behalf of the countries where they are stationed. These requests should pertain to projects supported both by the governments and by the people of these countries. The decision process as between these rival requests can be carried on in stages. First in the aid agencies themselves and then in the Budget Bureau, and finally in Congress.

5. In allocating these grants, we should follow the Russian example and attach as few strings as possible. The political affiliation of the foreign country should be disregarded, except in cases of outright hostility to the United States.

In this connection it might be well to remember that the original Marshall-plan offered Marshall-plan aid to the Soviet Union and the Soviet bloc as well as to the countries of Western Europe.

So should the foreign country's economic system, including both the degree of socialization of its economy and the degree of its competition with United States exports. Neither should grants follow the headlines or concentrate in critical areas. One does not know where the next headlines are going to be or where the next crisis is going to be.

Only the minimum of supervision should be exercised over foreign uses of funds, except insofar as misuse will inhibit additional grants.

An analogy to censorship: we should practice postcensorship rather than precensorship.

On the other hand, private as well as public enterprises should be eligible for United States Government support; they should be required to repay their home governments—not the United States—for such assistance as may be provided them.

6. When and if the Soviet Union and Communist China are willing to pool their foreign-aid funds with those of other nations, and have them distributed by an international organization, we should do likewise. Until such time, however, we should continue our present unilateral approach. It would be mistaken strategy to let the Soviet Union take credit for what its funds accomplish while our own contributions are merged in an international pot and our own identity is concealed.

Representative MILLS. Thank you, Professor Bronfenbrenner.

Our next panelist is Prof. Howard S. Ellis, department of economics, University of California, Berkeley.

You are recognized, Professor Ellis.

STATEMENT OF HOWARD S. ELLIS, PROFESSOR, DEPARTMENT OF ECONOMICS, UNIVERSITY OF CALIFORNIA, BERKELEY

Mr. ELLIS. There has been so much debate on this theme that there is danger of losing sight of a few fundamental truths which can scarcely be avoided in a detached moderate view of the subject. One of these fundamentals is that investment for the development of the underdeveloped regions cannot be left completely to private capital. In my written statement, I have set forth three compelling reasons for this conclusion.

One is that the United States cannot lay down foreign aid as a weapon of international diplomacy precisely at the time when it is being taken up by the Soviet powers. In itself, this would be sufficient reason for continuing the United States foreign-aid program. But aside from this, economists who, like myself, look upon private enterprise and private capital as the great bearers of progress, must admit that in the early stages of development public capital has to move in to supply certain basic utilities where the returns are too low or too slow to attract private capital.

Furthermore, public lending agencies, such as the International Bank, can influence governments in the borrowing countries to adopt economic policies favorable to foreign private investors, whereas private firms can scarcely exert much influence in this respect.

American foreign aid is supported by ethical, economic, and political arguments; and there is no denying that the political grounds are the really compelling factor. But the ethical or humanitarian interest in raising the level of living of the impoverished two-thirds of the world's population is surely real, and it is, furthermore, an interest of which this country has every reason to be proud.

It is furthermore an interest which cannot be dismissed as a fantastic dream of leveling the wealth. Foreign aid amounted to approximately 40 cents per capita per annum for the underdeveloped areas over the period 1946-52, and to not much more subsequently. With per capita income at \$2,400 in the United States, \$760 in Venezuela, and \$50 in Burma, for example, one may readily gage the leveling effect of 40 cents per annum in aid. Certainly, the humanitarian aspect of American foreign aid cannot be cheapened by the bogey of leveling the wealth.

So far as concerns its economic aspects, foreign aid does bring advantages—it enhances somewhat the prospects for profitable private investment, it helps develop foreign sources of supply, and it increases our exports. But foreign trade creates only 4 or 5 percent of the American gross national product; hence the advantages named are marginal changes in relatively small magnitudes. The United States does not undertake foreign aid for these economic advantages. If

the economic advantages were really marked, the outflow of private capital would probably make a Government foreign-aid program unnecessary.

Thus the political factor remains as the crucial one. I have no doubt that this has been quite generally recognized, and yet the nature of the political gain, being admittedly abstract and elusive, is often misconstrued. The worst misconception of foreign aid is the notion of buying friendship. Friendship cannot be purchased, any more on the international than on the personal plane, and that is all that need be said.

The political argument for foreign aid rests upon a probable association of economic and political stability with improvement of living standards. While such an association is highly probable, it is of course not invariant. It would be dangerous to represent economic development as a sure method of inhibiting communism. British Guiana and Ghana afford recent illustrations of the miscarriage of development on the political side, at least for the time being. But these exceptions seem rather to prove the general rule that countries experiencing economic improvement have rarely fallen under Communist regimes except by external aggression.

On the other hand, a good many examples can be adduced in which the growth of material welfare—reduced unemployment or increased real levels of private and social forms of consumption—has reduced the force of Communist movements, for example. Western Europe under Marshall aid, and the recent histories of the Philippines, Taiwan, Mexico, and so forth. I believe the conclusion is inescapable that judicious foreign aid plays an essential part in the defense policy of the United States.

There is, unfortunately, no way of telling just how much money is implied by a judicious foreign-aid program. Perhaps the only available rationale is to avoid what appear to be indefensible extremes. Any substantial reduction of foreign aid from its present level would seem to be bad strategy when Soviet economic aid is coming rapidly to the fore.

Furthermore, the reduction of United States aid would mean the termination or attenuation of many specific aid projects of proven merit.

Finally, the present levels of aid correspond roughly to the idea of an initiating or "spark plug" contribution to development. At the other extreme, proposals to increase foreign aid by several multiples involve the risk of exceeding the absorptive capacity of the poorer countries, if we are to accept the experience of the International Bank in the placement of its loans. Unless there are decided changes in the scene, United States foreign aid somewhere in the neighborhood of past levels with a growth factor corresponding to our gross national product would seem to be justified.

Representative MILLS. Thank you, Professor Ellis.

Our next panelist is Dr. Virgil Salera, senior economist, American Enterprise Association, Inc.

Dr. Salera.

STATEMENT OF VIRGIL SALERA, SENIOR ECONOMIST, AMERICAN ENTERPRISE ASSOCIATION, INC.

Mr. SALERA. The main points of the paper and some key related comments may be summarized as follows:

1. Most nonoil underdeveloped countries are doing only a fraction of what they can do for themselves to speed their economic growth; the greatest relative shortcomings are in agriculture, an activity requiring little foreign capital but from which the bulk of the people earn their livelihood.

2. What policy position should the United States take? There is room for grant aid (1) under the President's emergency fund, (2) to meet nonpolitical emergencies on humanitarian grounds, (3) with respect to technical assistance, and (4) in connection with agricultural surplus disposal programs. It is long-range, large-scale development aid on a grant basis which is strongly opposed. World Bank, Export-Import Bank, and private investment not only suffice to do the job but their operations best promote the establishment of needed basic non-financial reforms.

3. The amount of grant aid which alone would satisfy the planners in the underdeveloped nations would be tremendous, even though the proponents assert differently.

4. Clearly, the Communist threat is very real. But this does not mean that the United States should be stampeded into giving its substance under conditions in which there is a serious risk that the Soviets will be the main ultimate beneficiaries.

5. We must beware of the strategy of some vocal underdeveloped nations: In order to justify gifts, they seek to sell the idea that the limiting factor is finance; actually, once initial public-service facilities are being established, the foreign financial requirements for which can be handled by existing institutions, the basic limiting factors are enterprisers and a suitable business environment, skilled labor, and technically trained manpower, in about that order.

6. The real United States challenge is to develop financial relations with foreign nations such that these countries exploit every avenue of self-help. The gift route, including gifts thinly disguised as soft loans, promises to yield a small return because gifts to foreign governments, given particularly the anticapitalist bias of most intellectuals and bureaucrats in such nations, discourage maximum local efforts, especially the adoption of policies that genuinely foster local enterprise.

7. Local policies genuinely favorable to enterprise probably activate more additional output than is possible under United States gift-financed Government economic operations. Should the United States, ideological risks apart, favor gifts when there is a superior alternative system? Even more important, should we and friendly nations settle for less when there is also a risk of unwittingly playing into the hands of the Soviets?

8. In the typical case poor relations between the Government and the private sector largely account for both the extent of the back-

wardness in agriculture and the weak local enterprise base. The seriousness of these relations may be emphasized by calling attention to the very low efficiency and low public-mindedness of public administrators in most underdeveloped lands.

9. Except in commerce—which requires little heavy risk fixed capital—all manner of opportunities for local private capital formation, and attendant cumulative economic growth, are being foregone mainly because of poor Government-private sector relations. Why should the hard-pressed American taxpayer make good such a deficiency?

10. There is another serious consequence of a policy of large gifts for development. If these are made in the face of the ideological bent of the most articulate people in underdeveloped governments, future generations of Americans will never understand why their Government ever knowingly pursued a policy which would contract the sphere of private enterprise abroad—the very sector which (a) constitutes the natural ally against local Communist subversion and international communism, (b) is an immense local reservoir of latent resources whose potential for development dwarfs that of bureaucratic personnel, and (c) which is thus in a position to make an unrivaled contribution to the very democratic form of growth which the West and large sections of the local populace would like to see achieved in the underdeveloped countries.

11. The key operating goal of United States foreign policy respecting development may be stated in simple terms: it is to persuade understandably impatient governments that short- as well as long-range success will largely depend on achieving a delicate division of labor: on the government side, the selective development of true public-service facilities, including agricultural extension; and on the private side, an economywide burst of interrelated activities—which instead of being under the dead hand of central controls are actively influenced by honest and persistent encouragement from Government.

12. We should also note the implications of continuing to hold out hopes for large-scale gifts for development. Every week that important American groups keep alive such hopes we encourage many foreign governments to perfect grandiose plans and strategies based on such hopes. What we should be doing, in their interest even more than in ours, is to encourage them to begin improving their basic government-private sector relations.

13. A final caution: Once the government of an underdeveloped nation reserves to itself or crowds private enterprise out of big parts of the private sector there is little hope of inducing effective offsetting action, especially through foreign channels. Any organized offsetting measures are sure to induct direct or indirect Soviet support for the central planners.

Thus, commonsense dictates that every precaution be taken to avoid United States financing of Government activities which are not truly complementary to an expanding private sector.

Representative MILLS. Thank you, Professor Salera.

Our next panelist is Prof. Wilson E. Schmidt, department of economics, George Washington University.

STATEMENT OF WILSON E. SCHMIDT, ASSOCIATE PROFESSOR, DEPARTMENT OF ECONOMICS, GEORGE WASHINGTON UNIVERSITY

Mr. SCHMIDT. Intractable difficulties face those who would judge foreign aid good or bad. Firm conclusions are warranted only if the benefits of aid are compared with its costs, but both are exceedingly difficult to determine.

Two general problems pervade the assessment of military and economic assistance. First, the main thrust of these programs is to maintain peace. Because security is not a marketable commodity, it cannot be produced in response to individual consumer demand. Therefore, it is impossible to say whether more or less resources are devoted to it than individual consumers in total would want.

Second, an appraisal of aid requires difficult predictions about the behavior of foreign governments. For example, military strength is largely a relative matter; if, in response to an increase in military aid, the Communist bloc raised its military effort to maintain the previous ratio of strength, such additional assistance would contribute little to free world security. Thus, the benefits gained depend on the Communist response to aid. Similarly, as a result of a reduction in United States aid, our allies might increase or decrease their defense expenditures, depending upon how essential they felt it was to maintain their own security; if they would increase them, United States aid substitutes in some degree for foreign free world defense spending, and the benefits we obtain from military assistance are therefore not proportional to the amount spent on it. In sum, the payoff from aid depends upon the extent of Allied and Communist reactions to it, and this is difficult to estimate with precision.

The benefits of military assistance are colored by the type of war we might fight. The conventional arms provided by past programs look rather useless, so far as our defense is concerned, if an intercontinental, superhydrogen war is in the offing. But the issue is not quite so simple for a number of reasons. For example, if we withdrew our aid, our allies might evict us from the overseas bases on which our current power of massive retaliation depends. Again, the assessment of aid requires an intricate prediction of the actions of foreign governments in the absence of aid.

Even for a limited war, the benefits of aid are difficult to measure because of uncertainties over the reliability and/or military effectiveness of aid recipients and because a judgment of the value of a military force as a deterrent to aggression requires an estimate of a potential aggressor's estimate of the benefits and costs to him of war.

Finally, military aid has adverse side effects, such as the apparent friction it has created between Pakistan and India to the detriment of United States relations with the latter, and between Arab States and the United States through our aid to England and France. Evaluation of aid thus requires an appraisal of adverse political consequences and a judgment of the relative importance of countries to the United States, now and in the future.

Several uncertainties surround the benefits gained from economic-development assistance. It is not inevitable that development will, as is hoped, increase political stability, because economic growth involves change which may create insecurity. And, since there are no purely technical, objective criteria by which to allocate aid among potential

recipients, political relations with those receiving less than they think they deserve can be hurt.

Furthermore, the actual amount of development which aid will induce is difficult to estimate because aid may allow the recipient to divert tax moneys from development purposes and to relax efforts to encourage private domestic and foreign investment.

Besides peace, one alleged purpose of aid is to express the humanitarianism of Americans. Apart from two qualifications, it is doubtful that aid does serve this purpose. If an individual wishes to express his concern for the poverty of a particular people, he may simply send a check to their government's embassy. Does not the fact that individual Americans have to be taxed to finance aid indicate that they are in some degree forced to give more than their humanitarian desires dictate?

The costs of foreign aid are not much less difficult to determine than its benefits. With respect to money costs, the figures normally presented in public discussion are understated, because several types of assistance are not included and not all of the costs are reported.

With respect to real costs, the amounts of goods we give up, conclusions must be equivocal. It is hardly reasonable to add loans and gifts in presenting aid data, for they are quite different; we receive goods in return when borrowed funds are repaid. But, in addition to the difficulty of predicting the extent of defaults, the actual cost of loan aid is uncertain, because future inflation of United States export and import prices will reduce the real value of the principal.

It has been suggested that the real cost of aid financed with funds from agricultural surplus disposal is negligible because we export goods we cannot use. All other things equal, the CCC investment would have been over 50 percent higher in the absence of the special foreign-aid related disposal programs. If the continued accumulation of stocks would eventually bring a taxpayers' revolt against the domestic farm program, then such aid, by deferring domestic policy changes, involves real costs by helping to preserve the uneconomic allocation of resources inherent in the domestic farm program.

With respect to military assistance, the real cost is uncertain because of necessarily imperfect valuation procedures and because not all costs incurred in the administration of the program are allocated to aid.

Representative MILLS. Thank you, Professor Schmidt.

If it is agreeable with the other two members of the committee present this morning, the Chair will vary the procedure of the past few panels wherein members of the committee have had the opportunity of beginning the interrogation and proceeding through the remaining session with interrogation by turning this discussion first over to the panelists themselves. We have a diversity of viewpoint expressed in the papers in the compendium, and I think it might be appropriate this morning first to allow the panelists to comment on the statements made in the prepared papers by the other members of this panel and the statements which have been made here this morning in summation, if the panelists so desire.

Can we get some degree of discussion started among the panel here?

Mr. SALERA. I would like to open the discussion, if I may, by calling attention to a statement which appeared in the second paragraph of Professor Ellis' rather interesting paper. It happens that I have a

somewhat personal interest in the statement because I happen to have been a contributor to the document prepared for the Senate Special Committee on the Foreign Aid Program last winter.

The statement, if I may read it—

Representative MILLS. What page?

Mr. SALERA. 613 in the compendium.

One extreme position would deny any justification to United States public grants and loans for economic development purposes in foreign countries. I share the view that developing economies must largely supply their own capital; and I share the view that private capital from creditor countries carries with it know-how and techniques in a way superior to public sources of capital. And yet to imagine that in the present scene we must rely completely upon private capital is tantamount to admitting foreign aid as a weapon of international diplomacy for the Soviets and denying it to the United States and other free governments. This I believe to be abhorrent to commonsense.

That concludes my reading of the excerpt from Professor Ellis' statement.

I wish to say that that is a rather inaccurate characterization of the position taken in our study made for the Senate special committee. In that study, particularly on page 55, we state specifically that public credit—and we named the World Bank and the Export-Import Bank—is complementary to an expanded private enterprise operation in foreign countries.

We would be the last to try to deny to the United States weapons that the opposing side would have. Of course, given the fact that our assignment for the Senate related to the possibilities for private investment, we naturally devoted practically all our space to elaborating on the many facets of that problem rather than the features which we knew would be discussed in great detail in the other studies.

Representative MILLS. Professor Ellis?

Mr. ELLIS. I think I am ready to accept Mr. Salera's statement and correction of my somewhat too-zealous position.

Representative MILLS. Is there anyone else who wants to make a comment?

Professor Bronfenbrenner?

Mr. BRONFENBRENNER. I have a couple of notes that I would like to talk on, though I must admit I was not prepared to start the ball rolling. I thought I would be dodging eggs rather than throwing them. The first one is with regard to the capacity of underdeveloped countries to absorb aid.

Certainly I would agree that their absorptive capacity for taking capital along in large doses over short periods of time is quite small and, in fact, disappointingly small. But if to the capital is added substantial amounts of skilled labor, I am inclined to doubt that it is quite so small as I think many of the panelists believe that it is. And I think here that the experience of the Chinese mainland is quite significant. They were not only able to absorb all they could get, but more than they could get, and they have come quite a long way in a short period.

Point No. 2 that I would like to make at this time relates to a point which Mr. Salera made with regard to the—I think I am quoting here—"anticapitalist bias of most intellectuals and bureaucrats" in the underdeveloped countries and "the poor government and private sector relations" in these countries.

Well, as something of an Asian specialist—not an expert—the problem is this: that capitalism means different things to them that it does to us. What it means to them is dominated by their experience. What it means to us is dominated by ours. Very briefly, when you say capitalism, encouragement of development by the private sector, et cetera, et cetera, almost anywhere in Asia, what does this mean?

It does not mean competition as it does here. It means monopoly; that we are trying to sell a monopoly. It does not mean dominance of the economic system by natives of one's own country, as it does here. But it means a system in which all or most of the top jobs in the economy go to foreigners or go to individuals whom they call compradores who are subservient to the foreigners. How would we like capitalism if all the top jobs in Du Pont, General Motors, et cetera, went to Chinese, or to Americans who could speak Chinese and get along with the Chinese.

Capitalism in these countries is associated with social rigidity.

The people on the bottom stay on the bottom and do not rise the way they do here.

Finally—and harder for us to understand—whereas capitalism here means dominance by the best elements of society, there it means dominance by the worst. In the United States we talk in terms of "if you are so smart, why aren't you rich," and "he who can, does; he who cannot, teaches."

And with all justice to my fellow panelists, I think there is something to it. This is the kind of system we have got. But over there, it is the other way around. It is the best people traditionally who take the Ph. D. degrees, who become the scholars, who go into government, and so forth. And when you say "businessmen" over there, it is as though you were saying racketeer, gambler, or gangster here.

I think it was Clemenceau, the French Premier, who argued that war is too important a matter to entrust to generals. I think this is right. But, correspondingly, the argument there is that economics is too important a matter to entrust to businessmen.

Now, this seems like nonsense from our point of view. And I think I would be, if not the first, at least the second or third to agree that under American conditions, it is nonsense.

But in these countries, given their backgrounds, this is the way they think.

What they are after is not the U. S. S. R. or Communist China, but something much more like present-day England or present-day India. What I am afraid of, if we follow Mr. Salera's advice, is that we give them no choice, really, between the American pattern and the Russian pattern, and that we force them into the Russian model. And what I think we are encouraging—and we ought to encourage it, given the background that these people have—is something more like present-day Britain or present-day India, even though that is not capitalism or free enterprise in the American sense.

Representative MILLS. Dr. Salera, I guess you are entitled to a rebuttal.

Mr. SALERA. I have been made the target of this. Well, Mr. Chairman, this is a very big issue. We could not begin to discuss it today even if we spent the entire day on it.

Moreover, as I said in my paper, we deal in quasi-general terms because we cannot be covering particular countries. We have quite

a variety of cases. But there are numerous similarities. Though no one statement will necessarily fit any two countries well, there are generalizations which will fit a number of countries satisfactorily.

The first point that I would make in rebuttal to Mr. Bronfenbrenner is that no one who has had any experience with this sort of thing would begin to say "copy the U. S. pattern."

It would be just plain silly to offer such advice. Unfortunately, some fairly well placed people who also do some writing, and advise foreign governments, have said some silly things. They have tried to accuse Americans of doing the wrong thing because these underdeveloped countries cannot now adopt American institutions. No one ever seriously proposed that they should. Those writers were building up strawmen to knock over. To give an illustration, a recently deceased United Nations economist, a specialist on the Middle East, to whom I referred anonymously in my own paper, wrote something with respect to Middle East affairs in a widely circulated journal, a very respected journal. And he said, for example, that because water was scarce and had to be husbanded in the Middle East, therefore, it was necessary as a matter of policy for the Middle Eastern governments to own the farms and have the farmers operate as tenants of the government.

Now, I submit that that is rank nonsense, and that many statements of a parallel nature are to be found in all kinds of very "good" literature, as well as statements of that kind and much stronger statements in oral pronouncements by specialists who work for other governments.

So, my first point is that no one seriously proposes that the American pattern be adopted. The critical thing that has to be done here is to adapt—not adopt, but adapt—those parts of the American experience which are relevant. My own position is that the field of agriculture offers a tremendous challenge here, at the present stage of development in many countries.

Unfortunately nine-tenths of the economists writing in the field of economic development know very little about underdeveloped area agriculture. And they care less, I think. There is a deep-seated bias among lots of economists on this score. Agriculture is unglamorous; agriculture is retrograde in the sense it has been absorbing a smaller and smaller part of the total labor force. Industry has been absorbing progressively more.

That is the historical pattern, to be sure.

I think the same pattern will develop in time in most underdeveloped countries. It happens that most of the people in underdeveloped countries today live on the land, and they cannot rapidly be moved off the land regardless of the ambitions of some people or plans that may be proposed. Therefore, the real challenge is to improve the lot of these people on the land, and that can be done very substantially. Although I have not been in Asia, I have worked in Latin America and operated as a director of a research team in the Asia-like circumstances of the Peruvian Andes with subordinates who had had substantial experience in rural India and mainland China. And I know from my discussions with them as well as from observation and numerous, or innumerable, discussions with literate and illiterate peasants, Indians, especially in the Peruvian Andes, that the potentials are enormous if the problem is appropriately approached.

So, I would make these two points as major rebuttals to the proposition that Mr. Bronfenbrenner has made. There are many other things to be said too, of course.

Representative MILLS. Professor Schmidt?

Mr. SCHMIDT. First, I would like to support the point that Professor Bronfenbrenner made with regard to limits on absorptive capacity.

On page 634 of the collected papers in a footnote, it is shown that as long as the proper mix of resources is provided, including either skilled personnel or training for foreign nationals, there is no limit on the amount of aid that can be absorbed so long as the aid is a gift.

Second, I would like to call your attention to a statement in Mr. Asher's very interesting paper in which he says, on page 589, "When the United States lends to a country that could not have borrowed through commercial channels and the country erects a powerplant and later repays a loan with interest, both will have gained as a result of the transaction."

I think that this is incorrect. The reason is that the capital which is loaned abroad could have been used in the United States. I noticed with great interest Prof. Arnold Harberger's contention in the collected papers that the appropriate domestic rate of interest for benefit-cost analysis is somewhere between 6 and 8 percent or even more. Therefore, I think it is clear that even loans cost us something, because we probably could have used the resources more efficiently in the United States, gaining more goods through the domestic use of the resources loaned overseas than obtained through interest receipts from abroad.

My third point is that contrary to, I think, the conclusion of Professor Ellis, I do not believe that the advent of the Soviet Union in the aid business strengthens the case for foreign aid. The benefits to be obtained from foreign assistance are immeasurably reduced by the entrance of the Soviet Union. Now the recipient of aid will be able to say, with, I think, great justification, that our aid program is founded on fear of Soviet penetration and that the Russians are due the thanks for United States aid. The implication of the Soviet action in this regard is that we must set our minds to finding a new device. We must innovate again in order to carry on the cold war.

Our problem is like that of the businessman who brings out a new product and finds after awhile that competitors spring up to take away his market. His smartest procedure is to find another new product and make a lot of money on it.

I do not have any suggestion to make concerning a substitute for development aid. But I think we must find an alternative device and get out of the old rut of foreign aid as far as the cold war development question is concerned.

Representative MILLS. Does any other member of the panel desire to make a statement at this point?

Professor Ellis?

Mr. ELLIS. I would like to make a remark on the merits of grants versus loans.

This is a question which could be debated almost endlessly. But there is one economic consideration which seems to me to incline the logic in the direction of grants rather than loans. I find the division

of opinion here in this panel is that Mr. Asher and Mr. Bronfenbrenner favor grants, and Mr. Baldwin has favored loans.

As a matter of fact, I would like to comment on what has just been said about loans costing us something. If we make loans to foreign underdeveloped countries, these cost us something.

It shows that we are really engaging in some subsidization there. We are making the loans at lower than cost, so that we are indeed making a grant.

That is, actually, if the Government does anything it is really making a grant, because otherwise private capital will take care of it on a profit basis. The mere participation of Government is almost per se evidence of some aspect of subsidy—taking on greater risks, or making the terms of the loan easier.

Hence, I should say we might just as well make it a grant explicitly. At the present time grants make up a preponderant part of our foreign aid program. Loans are negligible. I think this inheres in the logical situation. If you could make Government loans as profitably and as securely as private loans then I would say there would be a rationale for loans. Otherwise it seems to me the logic is pretty clear on the side of grants.

May I add one further statement?

In the concluding portion of Professor Schmidt's testimony, he alludes to the humanitarian aspect of the aid program and suggests it would be better not to have the Government conduct this, but let it be on an individual basis, and suggests that if an individual wants to express his concern for the poverty of a particular people, he may simply send a check to their government's embassy.

I wonder if Mr. Schmidt would also say that if an individual feels concern for the defense of the United States, he can simply send a check to the Treasurer of the United States.

Mr. SCHMIDT. There is a very important distinction between defense expenditures and money spent for purely humanitarian purposes. Paul Samuelson showed in the Review of Economics and Statistics several years ago that national defense falls within the definition of a public good; namely, it is indivisible. Therefore, it is difficult to allocate the correct amount of resources to it under a purely voluntary system. This does not hold true with regard to humanitarian expenditures save for some possible neighborhood effects which I have discussed on page 636 of the collected papers.

I regret the brevity of my 5-minute statement in this regard. It should be noted that if one concludes that the American people would not send checks to embassies because they would not trust foreign governments, a simple device for handling this is to establish a special fund in the Treasury to which people would send their voluntary gifts when they make their income-tax payments. The only sure way of knowing that any of our foreign-aid money serves the humanitarian objectives of the American people is, in fact, to let them provide it voluntarily.

Mr. ASHER. I wanted to revert to the grant-loan problem for another moment. I think Professor Ellis was quite right in attributing to me a willingness to see the grant device used and used on a larger scale than it has been used, for purposes of realizing our foreign-policy objectives. These extend beyond economic objectives and are primarily political and strategic. But I am proloan, too.

I am strongly in favor of loans where it is feasible to make such loans. Among the various international agencies, I would give, I think, the best marks to the International Bank. In its cautious way it has done a splendid job.

What I do not want to see is the grant channel foreclosed on the doctrinaire moral ground that loans are good and grants are bad. If our objective is to get a more rapid rate of development in India, Indonesia, Burma, Bolivia, Ceylon, and other countries whose borrowing capacity may be limited, and it is to our advantage to achieve a more rapid rate of growth there, I do not want the grant channel foreclosed. I think we could use it more generously than we have. The fact is that, under the latest mutual-security legislation, it is virtually closed for purposes of fostering economic development which is the side of the aid problem that most intrigues the people at this table. We have the bulk of our aid overwhelmingly being spent for military purposes. And all the panelists, I think rightly, are fascinated with the tail rather than the dog, the economic development portion of it, and the difficult job of how you stimulate growth in the underdeveloped countries.

Representative MILLS. Professor Baldwin?

Mr. BALDWIN. With respect to grants versus loans, I agree with Professor Ellis and the others that foreign nations would not be able to borrow very much if we required them to pay interest rates consistent with the productivity of these funds domestically as well as with the risk element involved in these foreign loans. Nevertheless, I tend to favor loans rather than grants because I think the likelihood of obtaining a more productive utilization of the funds is greater under a loan rather than grant program. The fact that interest payments must be made and that the principal must be repaid is likely to encourage a more careful formulation of development projects than would occur under a system of grants. However, I would set interest rates quite low and accept liberal and flexible repayment terms.

Another point on this issue concerns the political repercussions of loans versus grants. Grants sometimes appear to generate resentment toward the grantors by the recipients. The recipients feel that they are viewed as charity cases who in some sense are not working as hard as they should. On the other hand, if they borrow funds, even knowing that they will be treated leniently with regard to interest and principal payments, their self-respect is higher. Consequently, their attitude toward their benefactors may be more friendly.

Representative MILLS. Professor Schmidt?

Mr. SCHMIDT. I should like to say something about the grant versus loan question.

First, the economic objective of aid seems to be to cause a net increment in the real income of an underdeveloped country. This objective can be obtained either through grants or loans. The same increment in real income can be obtained by a loan which is larger than a grant—larger because you need to offset the repayment of the loan.

Second, it really does not, in principle, matter whether we provide grants or loans so far as the effective use of aid is concerned. If one assumes that the recipient is perfectly rational, then he will devote the funds he has received, no matter whether they be grants or loans,

to the most effective uses. The very fact that there is a dispute about this, of course indicates perhaps that we really do not believe that the recipients are necessarily maximizing, that they will automatically obtain the maximum benefit from the funds provided.

Let me suggest wherein the choice lies. The interest rate on the loan provides a psychological boost to the recipient to use the funds more effectively than he would if he got a grant. It is a pure illusion, of course. He should be making maximum use of either. With respect to grants, efficient use is attempted through supervision by United States personnel. The choice between the two, it seems to me, depends on the comparative effectiveness of United States supervision of grants and the interest rate on loans as an illusion in causing efficient use of the funds provided.

Now, if you want effective use, you can use either device. I do not know where the choice lies, whether supervision has more or less effect than the interest rate. But for those who wish to minimize United States intervention in the affairs of others, a loan would be preferred.

Representative MILLS. Let me ask this one question, since you bring up the relative value of the loan versus grant.

Let me ask you whether you reach the conclusion in either direction from a primary consideration of economic factors or whether these factors are merely a collateral consideration.

I have difficulty as I attempt to understand you, why it makes any particular difference, solely from the point of view of economics, whether it is a grant or a loan. Because in either instance you transfer resources from the United States to a foreign country. It is the transfer of the resource that we think of, looking at it strictly from the viewpoint of economics; is that not it?

So that is accomplished under either procedure. So in order to reach a conclusion that a loan is preferable to a grant or a grant is preferable to a loan, you must think of other factors and base your determination on other factors; is that right?

Mr. SALERA. I think we must realize that in achieving this objective, at least in terms of recipient's point of view, namely, accelerating development, that that is 95 percent, or better, their job. They are in a pretty bad way now. It is not because of any fault on our part, although I realize that there are some ideas that might be used in support of the opposite contention.

The countries are in an unsatisfactory condition because of the way they have been doing things. Now the problem we face fundamentally is to exert leverage, if you will, and mainly by the financial route. I would say with respect to the grant versus loan issue, that the economics of it in terms of interest-rate calculations is peripheral. The main question is what procedure enables the United States Government to exert maximum leverage in getting maximum local effort.

And I think the loan approach dwarfs the grant approach on that score mainly for psychological reasons. We can say that if a country contemplates uses of capital that give low returns, we are not going to be repaid and low-order uses of scarce capital will be supported. If assistance is put on a grant basis, this important aspect of the negotiation with foreign governments will be lost. I think it would be a very serious loss.

Mr. ELLIS. I might add exactly the opposite position could be taken on this: That you have to have a more thorough and stiffer case for a grant than for a loan. As a matter of fact, I might say that the issue of grants versus loans is not the prime issue with respect to foreign aid. It is a peripheral or secondary question. But it is not altogether lacking in significance. One of the great arguments in favor of grants is that you like to keep these two categories clean so that you can tell what you are doing. The bank on international development carries on its operations on a commercial loan basis. If you do not mix these two categories together too much, you can tell what you are doing.

A good deal might be done under the aspect of soft loans, which are half loans and half grants. So perhaps from an economic angle you could argue that these categories ought to be kept pretty distinct.

I admit some point in the opposed arguments. I do not think it is just an open-and-shut case; it can be argued either way. I happen to believe that the position that we keep these two things clean has considerable merit.

Representative MILLS. Any further comment at this point?

Do you have any questions, Mr. Bolling?

Representative BOLLING. No; I do not.

Representative MILLS. Go right ahead, Senator Flanders.

Senator FLANDERS. One thing I would like to inquire about, Mr. Chairman, is the general topic for these seminars, Federal Expenditure Policy for Economic Growth and Stability.

Now, was it the intention to examine this element of Federal expenditure policy from the standpoint of this country's economic growth and stability? I assume that most of the other topics relate to our own economic growth and stability.

Representative MILLS. We said yesterday with respect to the defense program and again this morning with respect to this program that we recognized that determination of neither defense expenditures nor foreign aid could be based on their effects upon economic growth and stability; that there were other more compelling reasons for action in the appropriation of funds in each instance. But because our Government is the greatest single user of resources we thought it would be well in the seminar to analyze the effect not only of the nondefense spending, but of the defense spending and the foreign-aid spending upon the use of resources and upon the rate of growth and stability here in the United States.

Senator FLANDERS. Most of the discussion, as I have heard it, has not borne preponderantly on the domestic affairs of these expenditures. It has been preponderantly on the political and defense and humanitarian aspects of the expenditures abroad. At least, that is the way the discussion has seemed to have gone. And there is, of course, the newspapers and journals that have noted reactionary and protectionist feeling in this country arising from some of these things. I say perhaps not so much in the country as it is expected to arise in Congress this coming session.

So I have been interested in some of the domestic effects of these things that we have been describing.

I had a number of questions. Let me get rid of one point, however. I am a member of the Armed Services Committee, not the For-

eign Relations Committee, and as a member of the Armed Services Committee 2 years ago I made a trip around the world, visiting various countries in which we had military missions. I passed through India. We have no military mission in India, but I asked permission of my chairman to spend 2 weeks there at my own expense to study two things: (1) The possibility of raising the standard of living of the Indian population and (2) to try to find out why there appears in intellectual relations between the West and India a situation where we have suddenly come to a gulf beyond which you find yourselves out of contact in your thinking.

That, however, I will not refer to. But let us get back to this economic situation, which does concern us, and the question of aid.

There came to mind the opinions of the various members of the panel that perhaps there is a difference in the type of aid that can be used or should be used for an overpopulated country as distinguished from an underpopulated one. Now, the first Indian 5-year plan seemed to me to be directed just as closely as it was possible to direct it toward increasing the standard of living in terms of food, clothing, shelter, education. The second 5-year plan, which was just being announced while I was there, began to raise questions in my mind at least because they began to express their purposes in tons of steel, just as an example.

Now, this was the situation in a country which had already begun to run into trouble. There was an oversupply of labor and the textile industry was growing. For every yard of cotton goods produced on modern textile machinery, someone in the villages was being deprived of the village type of spinning and weaving. And they had to take the unusual expedient of limiting the amount of machine-made textiles so as not to drive the village industry out and leave those people without a source of income.

Now, what is the incidence of modern industrialization on a labor-surplus country. You put the effects of industrialization in terms of labor saving, and they do not have to save labor. I would like to inquire of you gentlemen whether you feel that there is a different sort of a situation there than there is in expanding the industrialization or reviving it in Western Europe under the Marshall plan.

Mr. BRONFENBRENNER. I think there very definitely is a difference and I would like to refer back to not only our statement, but also to Mr. Salera's statement with regard to the encouragement of agriculture.

I think the stress on agriculture makes very good sense in an underpopulated country and a country which has food-shortage problems. In a country which is overpopulated, the argument is, I think, rather sound that there they have the labor, and that taking this labor, plus additional capital, the way for them to get out of their difficulties is to add industry to an agricultural base. Let us put it in terms of China and Russia.

In Russia I am inclined to suspect, though I am far from being a Soviet specialist, that if it had not been for the international political situation Russia might very well have done better to postpone their industrialization and build up their agriculture, at least along with the other aspects of their economy.

In the case of China, where there is an overpopulation problem, I do not think there can be any doubt that the Chinese did correctly in stressing their industry first. So, to summarize, when you have sur-

plus labor, the thing to do with that is to graft, not industry competing with industry, but heavy industry on top of what you already have. And when you have a shortage of labor that is the kind of situation in which the case for expanding agriculture is, I think, best.

Mr. SALERA. Senator Flanders, I would like to reply or comment further on this point. I think we have got something that is pretty fundamental here. My own guess would be that if this view is accepted—unfortunately for myself—a majority of the people who talk and write about this, including economists, are on Mr. Bronfenbrenner's side—it could cost the American taxpayer an unnecessary sum of very large magnitude. I would not be surprised if it would cost \$25 or \$30 billions unnecessarily.

Now, if you look at it superficially and are swayed by the abject poverty of these people—and there is no question but that it is there—in countries like India or China, or go to Peru, the interior of Brazil, and all kinds of places, Senator, about all you note is that production is very low, living standards are very low. Our sympathy goes out to those people, naturally, for a long list of reasons that most of us know about. There are a lot of people on the land. They are not doing very well. They are each producing a very small output, as a rule. Now, the easy way out that is emphasized by many writers is to rapidly develop industry and get those people off the land where they are not producing very much and get them into what are regarded as more highly productive occupations.

That too is a very debatable question as well, Senator.

It happens that other people who have taken a much closer and more imaginative look at this agricultural picture, who come to the problem largely with a knowledge of operational economics and a true awareness of the role of agricultural extension and its potentials on the basis of relevant experience here in the United States—that is, not just in purely academic terms—come to quite different conclusions. I am among that group.

I might say that before I went abroad and looked at this thing carefully and had some responsibilities in an advisory capacity, I happened to have shared the other view. But I learned a profound lesson. And I would say that if the United States takes the other view—which is, incidentally, one of the premises of the Indian plan, and by virtue of that, one of the bases of their requests—if you take the other view, you are going to emphasize rapid industrialization which imposes terrific demands on capital and on manpower, skilled, technical, and so on. Instead, there is an alternative that is very sound, which is principally to build up agriculture. And I say that there is no important distinction as between overpopulated and underpopulated countries in this respect if the technical level of agriculture is low in both places, as it is in practically all of these underdeveloped areas.

Agriculture is not only an area in which large numbers of people work, but they are working with very, very poor and easily improvable methods that do not require big drafts on capital. They require capital, of course, but not big drafts.

Senator FLANDERS. May I suggest to Mr. Bronfenbrenner that I do not see how the imposition of industry on top of the existing agriculture will help increase the food supply which is deficient except as the

industry added on top of agriculture goes to the production of goods for the world market in exchange for an outside production of agricultural goods, of food.

And that is why we get back perhaps to the domestic side of this question. Does the solution for India lie in extensive industrialization and the entry of the products of that industrialization on world markets? Remember, food is the basic thing. They have an under-supply of food and an oversupply of labor.

Mr. BRONFENBRENNER. I think the argument is this: that you can produce approximately the same amount of food with less labor on the land; if I can put in some economic jargon here, that the marginal productivity of agricultural labor is extremely low. So that then what can be done is this: you can produce industrial products so as to reduce in the long run your demand for imports.

Now, what can you do? If you produce your own industrial products on top of what we will say is an inadequate supply of food, then it will be possible to import additional food.

Senator FLANDERS. You are speaking now of increasing the self-sufficiency of the country in expanding the industrial?

Mr. BRONFENBRENNER. That is right; so that they can, if necessary, import food.

Senator FLANDERS. They cannot do that without entering into the world markets, and that is where we come in.

Mr. BRONFENBRENNER. Not any more so than they now do. At the present time they have to import their manufactured goods. So the argument is that by producing their own manufactured goods they can import more in the way of food.

So the competition, Senator, is less with American producers for the domestic American market than with American exporters who now export to India. There is, of course, competition with Americans in either case.

Let me say another word with regard to Professor Salera's point.

It is certainly true that improvements in agricultural technique in both overpopulated and underpopulated countries can be a great aid here. And I do not think the argument is so much an either/or argument, as it is how much of each.

Speaking of India, where I have never been, I think the criticism of the American program is less in that it stresses agriculture than that it is agriculture and nothing else. And the argument of many of these people is that industrialization has a very substantial role to play in overpopulated countries; not that improvements of agricultural technique do not.

Senator FLANDERS. Is another fundamental difference agriculturally between the overpopulated country and the underpopulated country that the overpopulated country gets its food supply in large measure by intensive agriculture? The underpopulated country will get its food supply in large measure by extensive agriculture? Provided it has the land to work it on?

Now, some problems seem ridiculously simple when you look at them in a way that the problem of India does not. Here is Bolivia with the fertile lands lying the other side of the mountain range which separates the high Interior Valley from the Amazon Valley. If—and this, of course, has been the endeavor of our assistance to Bolivia—if the Bolivians can be persuaded to go over there and raise

their own food, their food problem is solved. That is a simple case, but I do not think the case of India is at all simple.

Mr. ELLIS, you have not gotten into this question yet.

Mr. ELLIS. Well, I sit between these two gentlemen. I rather feel somewhat between them.

I think it is true that in underdeveloped countries, both industry and agriculture are underdeveloped. And in India specifically improved techniques in agriculture have seemed to offer a great deal. Japanese agriculture experts have been brought into India and they raised the rice yield very greatly. I tend to sympathize with Mr. Salera's emphasis on the food supply.

But, on the other hand, India is a subcontinent, and is rather far removed from the industrial countries. Distance and transportation costs act as an invisible tariff. Consequently, there is certainly an economic justification for a certain amount of industrialization.

Nevertheless, I think everyone sitting at this table would probably share my view that the statesmen and politicians in the underdeveloped countries are rather inclined to overemphasize industrialization, simply because it makes a much bigger show than the improvement of agriculture. So we have to try somewhat to offset that.

Senator FLANDERS. That was my criticism of the second 5-year plan in India when I talked it over with the governmental officials.

When you begin to express human well-being in terms of tons of steel, you are expressing a quite indirect relationship which may be humanly effective or may not be. It is not automatic in terms of human well-being.

Mr. SALERA. Senator, that, too, is part of this overpopulation versus underpopulation thing. It happens there has been very little critical work on this, Senator. One of the few pieces I have seen was written by an Italian in the last year and a half. I came across the book sheerly by accident, in the course of reviewing this particular volume. Now, this man (Professor Calcaterra), is dealing with the problems of the Mezzogiorno, the underdeveloped portion of Italy. It is almost as poor a place economically as most other underdeveloped areas. This man has approached the problem largely from the point of view of the technology that is used and the technology that is feasible and not very costly. He has emphasized that low-labor absorption is characteristic of predominantly cereal-producing societies.

There are 11 to 14 man-days of employment required per hectare in cereals. He showed, however, that if a shift is made to a livestock emphasis, manpower requirements are quadrupled. If the shift is to an irrigated basis, manpower requirements—of course you produce in a different product mix—increase tenfold or elevenfold. I submit that this kind of information is very relevant.

And, incidentally, it is not widely known that livestock is unquestionably the worst and most backward facet of Indian agriculture. The Indians themselves admit that.

Senator FLANDERS. It is, definitely.

Mr. SALERA. Very relevant to all of this is that they are giving some attention to that. But, in my judgment and in the judgment of some other American analysts, it is too little, far too little; and it is going to cost the American people a lot of billions if we accept their line on outside capital requirements.

Senator FLANDERS. I am just going to ask just 1 more question, or make 1 more suggestion on this topic. You raised your hand, Mr. Bronfenbrenner, and I think time can be spent on this—and profitably so—indefinitely, but I do not want to do more than open it up.

Mr. BRONFENBRENNER. I am sorry to say that between the time I raised my hand and the present time I forgot what it was I was going to say.

Senator FLANDERS. You are a young man, but you show some of the signs of age.

Mr. BRONFENBRENNER. I am an absent-minded professor.

Senator FLANDERS. I do want to shift to one other subject. And this will be a kind of a pathic shot and will be acting as an *advocatus diaboli*. By the way, when I went to high school, as I said the other day, I had to take 4 years of Latin. It was obligatory, and I am still living on my high-school Latin. I graduated from the class of 1896. But the arguments for increasing freedom of trade, the continued expansion of reciprocal trade treaties, is a subject in which I have been interested a long time, and in favor of which, with other protagonists with the same idea, I have occupied the platform of Constitution Hall in the years before I came down for these more restricted auditoriums.

I have begun to worry a little bit, because the argument for it was very clear in that time; and, as I saw it, it was clear. We buy goods abroad and exchange the goods for dollars. Those dollars have no value except in return for American goods. So, we can be sure of a corresponding market for American goods to be shipped abroad.

Now, the question I would like to ask at this time is this: Has not that situation changed somewhat in view of the fact that other countries depend on dollar balances in the way in which they used to depend upon gold? And that we can be by no means sure of these dollars being returned to buy our own goods? Are they not being accumulated to the fullest possible extent to maintain dollar balances as a basis for the financial strength of our customer countries?

Does anybody want to answer that one?

Mr. ELLIS. Perhaps I might have a try at it.

Is the Senator's question whether the retention of dollar balances by foreign countries redounds to our own benefit as much as alternative uses?

Senator FLANDERS. Whether conditions have changed that dollar balance. As I see them, those dollar balances are the equivalent of gold balances.

Mr. ELLIS. I think that is right. But I should think that one might say that the accumulation of these balances, provided it is not just a chronic ailment, as it is, apparently, in Western Germany, which is a somewhat exceptional case, would be regarded with considerable equanimity. That is, these countries need balances to offset thin times in their balances of payments. And they, indeed, serve a useful function.

I do not know whether my colleagues at this table would agree. But that seems to be right.

Senator FLANDERS. You are making a plea for equanimity as a substitute for the old foreign market?

Does it come down to that?

Mr. ELLIS. I think you are quite right, Senator Flanders, in regarding dollar balances as the equivalent of gold approximately in the modern world.

I think we always imagined that the maintenance of gold balances was quite legitimate and indeed a healthy sign since countries could then draw on these balances in case of need and prevent balance-of-payment troubles, necessity of evaluation, and so on.

I would draw the same conclusion with respect to the accumulation of dollar balances, except I might say explicitly in case of Western Germany, it has gotten to be quite a problem.

Senator FLANDERS. Yes.

I might say I have lost my principal argument on the stage of Constitution Hall. That is what worries me. And I would be glad of any help I could get.

Mr. BRONFENBRENNER. Let me try to help you at Constitution Hall.

Isn't the accumulation of dollar balances, as I see it, a temporary matter?

This is something Professor Ellis has said, that right as of now, it may very well be true that the world is accumulating dollars, and they are not buying American goods. But, as he said, these balances are accumulated for a purpose. It is not just a Midas hoard. There are bad times in which these balances are drawn down to buy American goods. So that, essentially, what is happening to your argument at Constitution Hall is that instead of being on a "this year" basis, what we import this year will be repaid to our exports in this year, what Professor Ellis is saying, and what I would agree with, is that what we import this decade, we will get back in exports this decade. So, it is a matter not only of equanimity, sir, but also patience.

Mr. SALERA. To follow up on the statements of both Professors Ellis and Bronfenbrenner, we can come back to India again on this very matter. India, as you know, is rapidly depleting its foreign exchange reserves. They are on the verge of disappearing. And that, incidentally, is another very serious consequence that results from the particular planning exercise that has been accepted in India and which they are hoping to have the Americans finance.

Senator FLANDERS. Thank you.

Mr. SALERA. Let me add, Senator, that I realize that the Indian problem is a very serious one and deserves a lot of attention—as much as possible, sympathetic attention, I can go into that too if that is the question.

Senator FLANDERS. I will just make one other observation without asking a question, Mr. Chairman, and then I will be through with this opportunity that you have so kindly given me.

I was acquainted with two members of the Commission for setting up a 5-year or 6-year plant at the request of the Iranian Government.

As I remember, it was some little time ago. Two of the men on it were friends of mine. I got from them this report. Their report was shelved by the Iranian Parliament. I have forgotten the name for it. It was shelved because that Parliament, composed largely of men of means, had hoped that the report would be one looking toward the use of low-level Iranian labor for making goods to be sold on the markets of the world.

That seemed to them to be the obvious solution. And then they could import what food was required by that use of the low-level Iranian labor.

Now, instead of that, the Commission looked over the situation and felt that what Iran needed to do was to increase its food supply, and they went ahead with recommendations for doing that. But that was too simple so far as reaching human well-being is concerned.

This other idea of utilizing low labor costs was so attractive that the plan was never hardly even looked at. It was just put into a pigeonhole.

I do wonder whether there are some relations between that and the proposals for swapping Indian labor for American and other food? I am not going to ask any more questions, Mr. Chairman.

Representative MILLS. Senator Flanders, let me say for the record that it is always a delightful experience for me personally to have these all too infrequent opportunities to sit with you in committee. We appreciate the depth of your understanding of the matters before not only the full committee but the Subcommittee on Fiscal Policy.

Let me inquire just very briefly of the panel. Presumably our American foreign policy in this respect, at least in respect to foreign aid, has at some time or other determined that if this social unrest or political unrest that exists in many of these countries of the world is to be made into a driving constructive force for economic, political, and social development along the lines that are in the best interests of the free world, some considerable amount of outside resources have to be made available to these countries.

I say presumably that would be the basis for our present program. I think that that would be the basis of your thinking as panelists with respect to this. However, you might differ as to the attainment of that objective. Now, that raises a question in my mind as to whether, Dr. Salera, there are any practical specific policies and means which the Federal Government can use to provide the conditions under which private United States investment of capital will take over an increasing share of this job of providing outside resources? Or must we, on the other hand, devoid of any such possibilities, look to a continuation of foreign aid as being the only means, either in direct grant or loan, for supplying these considerable additional resources that are required.

Mr. SALERA. Mr. Chairman, I would answer your question along two lines.

Representative MILLS. Before you begin, Dr. Salera, I think you will admit that something would have to be done by the Federal Government to create the practical situation wherein private investment would flow in greater quantity than it now flows.

And, of course, it would have to flow in greater quantities to take over an increasing share of this transfer of resources from us to them. You would agree with that, would you not?

Mr. SALERA. Yes. The question is "How?" as always, Mr. Chairman.

Representative MILLS. Proceed with answering the question, then, if you will.

Mr. SALERA. In answer to the important question you have asked, I would like to address myself to two things. First, the general

attitude that I think this country should take with respect to supplying capital and technical know-how.

I would urge, as I tried to set forth in my paper, that existing institutions be fully used for this purpose. I do not think they have been fully used as yet, partly because of a number of attitudes that center around the complex of local and rather comprehensive economic planning in a number of underdeveloped countries and the hope for large-scale aid.

You do not go out and make a lot of efforts that call for serious thinking or serious reorganization of government, and things like that, if there is an easy way to achieve the objectives that your people will be satisfied with. So, first, I would like to get that ironed out very clearly. In my view the simple solution would be to stop talking about aid. Just forget about it; for long-term development, that is.

Now, as I said earlier, the United States is now making, and may continue to make, a fair amount of aid available even if there should be no long-term development grants.

We have the President's emergency fund; we have technical assistance, which we who favor private enterprise also accept and are willing to promote; we have the agricultural surplus disposal program, which is providing substantial resources, and apparently will for some time because of the character of our domestic farm policy mainly.

So, we are making resources available and will continue to make resources available on a grant basis.

I would say that we should call a halt to long-term large-scale development grants, continuing the grants of the kind I have mentioned, and emphasize that there are large resources to be won by making a case through the World Bank, the Export-Import Bank, and especially through private foreign investment.

I would call your attention to section 4 of our study for the Special Senate Committee To Study the Foreign Aid Program, where we set forth particulars in detail.

Representative MILLS. Would you like that to go into this record at this point?

Mr. SALERA. Yes; I think it would be a good idea.

Representative MILLS. It will be done.

(The document follows.)

SECTION IV. INSTRUMENTS FOR PROMOTING PRIVATE FOREIGN INVESTMENT

A. PRIVATE FOREIGN INVESTMENT AND COMPLEMENTARY PUBLIC FINANCING MEASURES

We have alluded at several points in this report to the fact that there is a place for public programs that complement private foreign investment. The matter is important enough to merit further attention before considering the various instruments for encouraging private foreign investment.

Those who regard vigorous private foreign investment as a vital force for growth in the less-developed countries are not unmindful of the fact that certain categories of capital formation (public service facilities) are usually undertaken by government. Roads and schools are public facilities in most countries. An agricultural extension service is also a public operation.

To the extent that financing in addition to that available from local resources and private foreign investment is needed it can be and is being provided on a loan basis by the Export-Import Bank and the International Bank for Reconstruction and Development. Both agencies carefully screen requests for funds to assure that only well-considered projects, which will make a contribution to the borrowing country's economy and which show reasonably good repayment prospects, qualify for financing. Such public works improve the attraction of

the borrowing country to private foreign investors. The projects, in short, complement the private economy.

Much the same may be said about international efforts to improve educational facilities directly related to production, especially in the big agricultural sector of the less-developed countries. Thus, technical assistance programs of the kind that have been carried out bilaterally are also complementary to private foreign investment. Increased productivity in agriculture and improved levels of health that result from public health programs are the key accomplishments of the technical assistance programs in which the United States is engaged. The success of such programs depends on meeting more than merely financial requirements. Indeed, the limiting factor has been and still is suitable personnel. Subject to the proviso that properly qualified individuals are available for staffing positions, it would seem that the technical assistance program is complementary to an expanded volume of private foreign investment.

However, with increasing later prosperity in the underdeveloped countries, it could be questioned whether it is necessary to ask the United States taxpayer to provide technical assistance. Total outlays on this kind of aid are not large and are probably within the means of underdeveloped countries.

B. THE INVESTMENT GUARANTIES

The United States Government provides guaranties against the risks of inconvertibility of capital and investment receipts, expropriation and confiscation, and war risk. A charge of one-half of 1 percent is made for each kind of risk, except for war risk where the rate has not yet been determined.

Investments covered by these guaranties must be new investments or additions to existing investments by Americans and they must, in effect, expand trade or aid economic development. In the event of expropriation or inconvertibility of earnings and capital the United States Government reimburses the American investor for his losses and his property claims are transferred to the Government. Before any investment can be covered by such a guaranty it is necessary that the foreign government sign a special bilateral agreement with the United States. These agreements assure that the claims and property transferred to the United States Government in the event that the guaranty is activated shall be subject to direct negotiations between the two governments and that the local currency acquired by the United States Government pursuant to such guaranty shall be accorded as good treatment as that accorded to private funds arising in transactions with United States nationals. A number of these agreements include provisions which call for arbitration of those claims which the two governments cannot satisfactorily negotiate. The agreements also provide that no guaranty will be issued with regard to any project unless the project is approved by the government of the foreign country.

No payment under the investment guaranty program has ever been made. It seems unlikely that governments will take action which would lead to claims since such action would involve them in negotiation with the United States Government and thus might jeopardize their economic relations with the United States. The fact that there has been an excellent service record on recent United States Government and International Bank for Reconstruction and Development loans suggests that foreign nations are not likely to endanger their credit standing with the United States Government, and therefore they are not likely to endanger the assets in which the United States Government has a contingent interest.

It is impossible to say whether or not the program is in fact a subsidy to United States private foreign investment because there is no actuarial basis for establishing the appropriate premium. It seems clear, however, that private enterprise cannot provide insurance against these risks and that the Federal Government is not displacing private activity in this regard.

Since the start of the program in 1948, only \$124 million of convertibility and expropriation insurance has been written; less than 15 percent covers investments in the less-developed countries. However, during the last 2 years interest in this program has been picking up, with a greater number of underdeveloped countries being covered and with a greater number of contracts being written.

The somewhat disappointing record of this program has been caused in part by the fewness of the countries with which bilateral agreements have been signed. Of the underdeveloped countries only Bolivia, China, Colombia, Costa Rica, Ecuador, Guatemala, Haiti, Honduras, Israel, Pakistan, Paraguay, Peru, Philippines, Thailand, and Turkey have signed such agreements, though the dependent terri-

ories of a number of European countries are also included in the investment insurance program.

Furthermore, guaranties can do little to assist private foreign investment so long as the overseas climate for investment is poor. Expropriation and inconvertibility are not the only obstacles to private foreign investment as we saw earlier. Losses due to currency depreciation are not covered and losses due to "creeping expropriation" are not included. Thus, according to the United States Government Investment Insurance Manual "taxation and regulation by the foreign government will not be considered expropriatory unless it can be shown that the government's primary object is to divest the owners of the investment property." Independent determination of the motivation for the government's action might be one way to give assurance to prospective investors that this clause will be fairly interpreted. But the fact remains that this interpretation will always be somewhat arbitrary by the very nature of creeping expropriation.

Considerable administrative scrutiny of the potential investors' financial and economic activities is required in the consideration of an application for a guaranty. Furthermore, the process is lengthened by the fact that the foreign government must give approval to the specific investment project under consideration before the United States Government will approve it for insurance. Foreign governments have often acted very slowly in giving this approval.

Still another reason for the paucity of activity in this program is that it has been difficult to negotiate the bilateral agreements with underdeveloped countries. Sections dealing with expropriation have been particularly difficult to negotiate, partly because expropriation is in itself a delicate subject. The requirement that there be direct diplomatic negotiation runs contrary to the views of a number of underdeveloped countries that the United States Government should not intervene on behalf of its private foreign investors.

The ultimate effect of the investment guaranty program on the volume of private foreign investment is unfortunately indeterminate. Queries to those who received investment guaranties indicate that a substantial percentage of the investment would have been undertaken in the absence of the investment guaranty, although this conclusion rests upon the assumption that the respondent clearly knows how significant the investment guaranty was in the ultimate decision to invest abroad. A further complicating factor is that the investment guaranty probably improves the general climate for foreign investment in countries where it operates. Foreign governments are unlikely to discriminate in favor of private foreign investment covered by investment guaranties and therefore the program reduces the risk for other foreign investments.

There is a strong case for ceasing to make investment guaranties available to the more developed countries of the world. It is questionable whether the gain in our national interest through investment in these areas offsets the potential cost to the American taxpayer in the event of inconvertibility, expropriation, or war. When the program was initiated in 1948 there was a clear-cut interest in expanding United States investment in Western Europe in order to facilitate economic recovery and rehabilitation; this motive hardly holds today. Furthermore, cessation of guaranty contracts for Western Europe would permit a shift of effort on the part of the staff toward activities in the underdeveloped countries, and a shortening of the time required to obtain guaranty coverage.

The possibility of requiring any country that receives foreign aid assistance from the United States to sign a bilateral agreement should also be considered. While this would not assure the flow of private investment to countries where the general investment climate is not favorable, it might increase the number of propositions for investment which were presented to the foreign government for approval and, upon seeing the potential benefit of such foreign investment, the attitude of the government toward foreign investment might change. The requirement that the country sign an investment guaranty agreement with the United States if it is to receive foreign aid would tend to remove one of the shortcomings of the existing program—at present, because of the small number of cases involved, the existence of an agreement with a country tends to suggest that that country makes it difficult for investors to remit earnings or repatriate capital.

The Congress should also consider the feasibility of dropping the requirement that the foreign government give approval to the specific project under consideration. Probably the major protection to American investment abroad is the fact that the United States Government "goes in" with the investment, when

it is covered by investment guaranty. The requirement of foreign approval has acted as a deterrent to the completion of contracts because of the lengthy time periods involved.

C. TAX INCENTIVES

The tax treatment of foreign income is a factor affecting private foreign investment. At present, with several qualifications, the effective maximum rate of tax on foreign income is equal to the United States corporate rate except when a foreign tax rate is higher than the United States rate, since under American law the recipient of income from abroad can offset his foreign tax against the United States tax.

A number of proposals have been made for reducing the tax burden on corporate income received from overseas investment which are worthy of careful consideration by Congress. Some of these proposals find their justification on grounds of equity within the context of foreign operations themselves. Thus, some overseas operators, being liable to United States as well as lower local foreign taxes, are subject to higher total taxes than their local competitors (either nationals or businessmen from other capital-exporting countries). For the purpose of reducing the inequity involved in the relations among competing firms in foreign countries and to stimulate private foreign investment, there are grounds for arguing in favor of a lower United States tax rate on foreign income. Of particular importance is the fact that lower tax rates should help to expand private investment in the less-developed countries.

It has been argued, however, that in some situations lower tax rates on foreign business income may produce inequitable situations in terms of the relations among firms operating wholly within the United States and those which also operate abroad where lower taxes prevail. In such cases firms with foreign plants may well have a cost advantage with respect to sales in third markets or even conceivably with regard to sales in the United States. Since such advantages are likely to be concentrated in products that are fairly advanced manufactures, which are produced in the developed and not in the underdeveloped countries, this argues in favor of limiting the tax reduction on foreign business income to income earned in the underdeveloped countries.

The following example illustrates why private foreign investment is likely to be stimulated by a United States policy of lower taxation of income earned abroad. Today, when the foreign tax is 52 percent or lower, American companies operating abroad retain 48 cents on each dollar earned. If the same companies invested in a country with a 30-percent rate, and if the United States did not impose a tax on the income in question, the retained income would be 70 cents; this would represent a 46-percent increase in investment yield. At a somewhat intermediate position is the present policy of applying a tax rate that is 14 percentage points below the regular rate on the income of Western Hemisphere trade corporations. Such a rate increases the investment yield by 29 percent, provided that the local country imposes a tax rate no higher than 38 percent. Since it is a fact that the largest part of the United States taxes collected on foreign direct investments comes from investments in Africa, the Middle East, and the Far East, it would appear that the improvement in yield to investors that would result from generalizing the 14 percentage point tax reduction should serve to stimulate greater private investment in the less-developed areas.

Not all students of the problem are in agreement with the position outlined above. Thus, a recent study by Messrs. Barlow and Wender¹ concludes that company executives interviewed by the authors in no case felt that the removal of the United States tax would have changed the decision against any fully investigated investment project. However, many investors contend that tax factors are important. Furthermore, it is, of course, possible that full investigation was prevented by the tax itself since the tax situation is not necessarily the last thing to be considered in an investment decision. The Barlow and Wender study also concluded that a major reason why some companies do not invest abroad is the lack of interest on the part of the executives of the companies. It may be argued, however, as we have done above, that a significant change in the tax treatment of income from foreign investments could change this situation by revising profitability expectations and thus inducing many firms to examine situations of the type which have heretofore been ignored.

Tax adjustment of the kind suggested above will involve some loss of revenue to the Treasury. Data on which to base an estimate of revenue loss are not

¹ Foreign Investment and Taxation, Prentice-Hall, New York, 1955.

available, but the Treasury estimated that a 14 percentage point reduction in the tax on foreign income would cost \$147 million in the first year. Opponents of tax reduction note that it is generally agreed that any proposal for tax relief to a particular segment of taxpayers should carry a heavy burden of proof. This reasoning, however, stems from experience in purely domestic tax matters. It must not be overlooked that a policy of easing the taxload on foreign investors would lighten the burden on the general taxpayer to the extent that increased private foreign investment served as a substitute for grant aid or subsidized lending to the less-developed countries.

At present a corporation which operates abroad through branches is taxed currently by the United States on its income from abroad, whereas the income of subsidiaries incorporated abroad is left free of United States taxation until the income is distributed as dividends. There seems little reason for this discrimination. Thus Congress should consider allowing United States corporations to defer paying United States tax on the foreign income of their branches until that income is "finally repatriated." This should have the effect of encouraging the retention of earnings abroad, thereby promoting foreign economic development.

Congress should give serious consideration to the adoption of proposals for removing discriminations against portfolio investment in foreign securities. For example, under present law regulated investment companies ordinarily pay no United States income tax. Therefore, they are not able to take advantage of the credit against the foreign tax paid on their dividend and interest earnings. Only companies with more than 50 percent of their assets invested in foreign securities can pass the foreign tax credit through to their shareholders. A practical method should be worked out whereby regulated investment companies would be able in effect to pass on to their stockholders the credit for foreign taxes.

Because the managers of investment companies are ordinarily quite sensitive to slight differences of yield, it is not unlikely that the resultant increase in the yield on foreign securities would induce a significant shift in portfolios toward foreign securities.

D. TREATIES OF FRIENDSHIP, COMMERCE AND NAVIGATION AND INVESTMENT TREATIES

Some assistance in the promotion of private foreign investment can reasonably be expected from treaty arrangements—for example, treaties of friendship, commerce, and navigation.

The purpose of international treaties relating to foreign investment is to provide legal recognition of the right of United States capital to enter other countries, to carry on business abroad, and to define its rights in the conduct of business, remittance of profits, and the repatriation of capital.

Treaties of friendship, commerce, and navigation have been the historic method of codifying regulations with regard to commercial relations apart from duties. Prior to World War II national treatment had been normal for many years in United States treaties with respect to natural persons, but this was not true of juridical entities. Rather they had been, in practice either ignored or dealt with only in a limited way or else assured only a most-favored-nation treatment. In the postwar series of treaties, a comprehensive effort has been made to extend the same liberal standard to companies and the activities of companies. Such a shift has been necessitated by the growing importance of corporations in international investments.

The postwar efforts to improve the climate for United States investments through foreign commerce and navigation treaties have been, by and large, disappointing. Foreign commerce and navigation treaties containing investment clauses have been negotiated with the following less developed countries: Uruguay, Colombia, Haiti, Israel, Ethiopia, Iran, and Nicaragua. However, only those with Israel and Ethiopia have been ratified by both legislatures. While there is little doubt that the effort spent negotiating such treaties is useful and that every effort should be made to increase the number of treaties, the fact remains that they are probably of only minor significance in affording protection to United States enterprise. Nonetheless, it serves a useful function to spell out the existing area of real agreement and perhaps the negotiation of these treaties suggests lines for further agreement. The treaties probably serve to restrain a future government of a signatory country from unfriendly acts should it have an attitude less favorable toward private foreign investment than the government which signs the treaty.

Perhaps the chief obstacle to using friendship, commerce, and navigation treaties to improve the investment climate of underdeveloped countries is that the provisions establishing national treatment for American corporations run head on into the xenophobia and the nationalistic legislation of many such countries. It is this difficulty which has led to extensive criticism of the provisions of existing treaties. Thus some treaties recognize the right of the signatory to screen projected foreign investment. Some fail to require that no established interests of any kind may be impaired by government action except upon payment of prompt, just, and effective compensation. Some fail to prohibit the nationalization of private industry or at least to require that no expropriation may occur until after compensation has been agreed upon and paid. Some lack specific commitments regarding the entry of foreign technical personnel and a statement of clear rights for American accountants and other professionals. None carry categorical guaranties regarding the remittance of earnings and the repatriation of capital. Many lack precision regarding the rules for the awarding of government contracts and concessions. They almost entirely neglect those governmental actions which might be classified as creeping expropriation; that is, discriminatory tax treatment, certain kinds of labor legislation, some administrative activities, and the like.

Still another difficulty is that these treaties cut across the interests of all ministries of a government and therefore pose many problems requiring careful study by many persons. Because the treaties are long-term projects and because they must compete with the time and energy of the bureaucracy of the state, the tendency is to put off consideration of the treaty.

By their nature these treaties are mutual and reciprocal. But they contain little bargaining power and they do not lend themselves to the ordinary process of exchanging concessions. Thus the conclusion of a treaty does not assure the other signatory that it will receive a substantial amount of American private investment. No treaty can be more liberal than United States laws and policies. Thus the United States does not pay compensation for certain types of injury done to business in making Government policies effective. Furthermore, the United States restricts the right of aliens to enter certain professions. To an unknown degree this is significant because American corporations employ accountants, lawyers, and other professional people abroad. The limitation of the right of foreigners with respect to minerals on public lands in the United States may be negligible in this country, for only a minor part of mining opportunities are affected by the limitation, but the reciprocal reservation may effectively bar United States enterprise from all or a major part of investment opportunities in other countries.

It is sometimes suggested that the foreign commerce and navigation treaties be ended and that special investment treaties, i. e., those dealing only with foreign investment, be negotiated. It is exceedingly doubtful that this would accelerate the negotiation of investment provisions, since the investment clauses of the foreign commerce and navigation treaties are almost invariably the most difficult parts to negotiate. Furthermore, what are not regarded as investment provisions often impinge on investment climate. Thus, police protection and censorship of the mails are important "noninvestment" provisions of foreign commerce and navigation treaties which are germane to the climate for American operations abroad.

It has also been urged that the United States enter into some form of multilateral investment treaty or international investment code involving a number of countries. Such a suggestion suffers on two counts, as has been shown, for example, by the experience with the International Trade Organization. First, such multilateral conventions tend to reflect the least common denominator position; thus, the country least favorable to private foreign investment would accept only weak clauses, and the whole convention would suffer. Secondly, in the light of recent experience, it is highly probable that still another international conference on international investment would develop, reveal, and crystallize further support for doctrines and views which are essentially repugnant to American enterprise and thus worsen the climate for private foreign investment.

E. FOREIGN AID AND THE PROMOTION OF PRIVATE ENTERPRISE ABROAD

The major finding of this study is that private enterprise is more effective in promoting the growth of the underdeveloped countries and the efficient use of their resources than government-to-government grants or credits. The crucial importance to development of an extension of the enterprise base in the underdeveloped countries has also been demonstrated.

In spite of the fact that the principle of primary reliance on private investment in our program of assisting the less-developed countries is constantly reaffirmed, a large part of our assistance to these countries has taken the form of public loans and grants to governments for government-sponsored projects. Only a small percentage of United States Government funds has gone directly to assist United States enterprise operating abroad. Thus, in fiscal 1956 none of the International Cooperation Administration industrial projects using goods financed by United States aid were owned by United States citizens. Somewhat less than 10 percent of the Export-Import Bank's loans in fiscal 1956 went to overseas enterprises owned by the United States.²

During the postwar period the Export-Import Bank has provided about 12 percent of its loans to United States-controlled enterprises and almost one-half of its total loans have gone to privately owned United States or local firms. So far as can be determined, only one loan has been made to American-owned enterprise out of the local currency proceeds of Public Law 480 (the Agricultural Trade Development and Assistance Act of 1954, which authorizes the sale of surplus agricultural commodities to foreign governments for local currencies).

Assuming that foreign economic aid continues to be provided to the underdeveloped countries, the important question that arises thus concerns whether there is any way in which the aid program can be used directly to stimulate United States private investment abroad and the expansion of the domestic enterprise base in aid-recipient nations. To do this it has been proposed that, to the extent such substitution is feasible, foreign aid funds, including local currency proceeds of Public Law 480 sales, be channeled through loans to private enterprise instead of by means of grants or loans made directly to foreign governments.

Under this proposal the United States Government would actively enlist the assistance of well-established and reliable United States firms, both large and small, in overseas operations. Suitable United States firms could be acquainted with the various investment opportunities that have been brought to the attention of the United States Government and also brought in contact with the appropriate officials of foreign governments. More loans could also be made available to local enterprise in the less-developed countries, particularly from the Public Law 480 local currency proceeds.

One obvious advantage of such a program is that it is a method whereby the government of a country which owes its great economic strength and high levels of living to private enterprise can mobilize the entrepreneurial experience and skill of American business (and also of foreign private enterprise) for achieving some of its foreign policy objectives. Another important related consideration is that there are hundreds if not thousands of American firms which have never considered going abroad. But once an American firm obtains a stake in foreign investment it usually becomes enthusiastic about overseas operations and seeks to expand. This proposal would offer a positive inducement to United States firms to expand or initiate operations in underdeveloped areas.

An important further advantage of this proposal is the leverage effect on private capital. Because private funds would join with the foreign aid moneys, we would be able to give a maximum amount of the most effective kind of assistance to the less-developed countries and at the same time reduce the foreign aid tax burden of the American people.

Not only would this program implant more entrepreneurial ability and increase the amount of private investment in the underdeveloped lands, but the United States Government participation would act as an umbrella over the United States firm against expropriation and maltreatment. When the United States firm requires only this umbrella to induce overseas activity, very small sums of Government money may be required, for the length of time that the United States Government will commit its funds as an umbrella is more important than the size of the financial assistance.

Because the development and extension of the enterprise base of underdeveloped countries is of prime importance in stimulating worthwhile, sustained growth, it follows that one of the chief values in the provision of assistance through such institutions as the International Bank for Reconstruction and

² This figure excludes loans which take the form of commodity credits, dollar-exchange credits, and military-assistance credits as well as credits canceled in their entirety. Only those United States firms in which more than 50 percent of the ownership is held by United States investors are included in the statement; thus firms in which Americans have a controlling minority interest are excluded as are the instances where foreign enterprises gain United States entrepreneurial ability through management contracts with Americans.

Development, the Export-Import Bank, and the International Cooperation Administration is that they can bargain for improvements in the legislative, fiscal, and regulatory environment of underdeveloped countries. Private enterprise can hardly demand that a foreign government stop its inflationary monetary and fiscal policies, adjust its exchange rate, ease regulations on local enterprises, improve public administration, and other matters germane to governmental activity in the underdeveloped nations. But the sources of public capital can.

The International Bank for Reconstruction and Development is to be congratulated for withholding loans from countries which are in default on publicly held foreign debt and for sometimes refusing to lend to countries which pursue unsound policies with respect to budgetary and power rate policies. Similarly, the Export-Import Bank is perhaps contributing as much to foreign economic development through conditions upon its loans, such as the explicit statement following the Argentine negotiations that the bank would give "due consideration" to the progress that Argentina makes in respect to attaining monetary and financial stability and its efforts on behalf of free enterprise, as in the provision of capital.

It seems inconceivable that the United States should not nudge underdeveloped countries into a better use of their productive resources; and if the taxpayer is to provide the funds, there is no reason why he should not gain the greatest benefits both for others and for his money. Those who contend that the attachment of conditions is an unwarranted intervention in the affairs of others, which intervention will redound to our loss politically, make an important point that all United States negotiators must never forget. But it should also be noted that the conditions which are imposed to make more effective use of the funds provided are much less likely to induce ill will than this view would suggest. Who can deny that the United States has an obligation to its taxpayers to see that its aid is used appropriately? Clearly, effective use of aid depends upon many facets of governmental policy—exchange rates, public administration, etc. To suggest that conditions cannot be attached with circumspection and with success, with the conditions being imposed as between gentlemen, is to cast doubt upon the negotiating competence of American personnel. Furthermore, to suppose that this constitutes dictation, misunderstands the complexity and heterogeneity of government.

As can be easily seen from the disparities of opinion within our own Executive or between Congress and the Executive, any government contains many views on any given subject. Some departments and individuals within the government of an underdeveloped country undoubtedly favor the policies which we have outlined above as being essential to effective and sustained growth. By making it clear that assistance is dependent upon such policies, we strengthen the hand of those who share our views, thereby fortifying them in policy debates within their own governments. The policy of foreign governments is not fixed and is rarely unanimous; conditions provide a means of shifting policy by strengthening certain segments of opinion in foreign governments in the determination of policy.

F. AN INFORMATION PROGRAM TO PROMOTE INVESTMENT AND CALL ATTENTION TO INVESTMENT OPPORTUNITIES

Though recent efforts within the Government to improve information on foreign investment opportunities are praiseworthy, much remains to be done.

Several activities have been undertaken in recent years to expand the information program that deals with foreign investment. The Department of Commerce has issued some very informative investment handbooks on particular countries for the guidance of investors. These are helpful to businessmen, since they provide realistic information on business conditions and investment opportunities in specific underdeveloped countries. The dissemination of information through a recent publication titled "Investment Opportunities Abroad," merits praise, and the Department of Commerce is to be congratulated for assisting in the organization of local committees of businessmen, bankers, and securities dealers for furthering that end.

The trade promotion efforts of the Department of Commerce constitute another useful enterprise, even though such activities are only indirectly related to the field of investment. Participation in trade fairs enables our Government to display the products of American industry so as to show both the range of output that is produced by the American economy as well as categories of output that might be produced locally by American capital. Trade promotion, there-

fore, bears in a general educational way on the problem of how to expand opportunities for foreign investment.

The International Cooperation Administration could further assist the growth of private foreign investment by making its studies of prospective projects available to United States firms at no cost. The Congress might consider requiring the International Cooperation Administration, wherever possible, to publicize its prospective projects and to publish its studies in order to afford private firms the opportunity to undertake them; if there were no takers after a certain date, the International Cooperation Administration could then proceed.

Another recent step relates to new procedures for improving the quality of Government personnel working in fields associated with the promotion of investment. Thus, the agreement in 1956 between the Departments of Commerce and State for the exchange of personnel is of interest. Under this agreement 20 foreign service officers will be assigned to work in the Department of Commerce and 20 individuals in the latter Department will take up duties in various embassies abroad. The Department of State will also recruit another 20 persons, with the concurrence of the Department of Commerce, to serve as commercial officers abroad. That efforts of this kind are useful is indicated by the commentary of Mr. Samuel Waugh, at present president of the Export-Import Bank and formerly Deputy Under Secretary of State for Economic Affairs:

"It is true that the embassies are presumed to improve the [investment] climate to the limit of their ability, but if we would be completely frank I think that we must admit that the climate for the attraction of foreign investments has not been given very much consideration as I think it should be."

It is doubtful, however, whether a mere increase in the number of people within the Government who are concerned with the problem will meet the basic issue involved. There are two facets of the important information problem. First, there is still a great lack of knowledge and many misconceptions about American foreign investments. In most countries only a few individuals are well informed about United States investments within their borders. The basic facts should be known by a larger cross-section of the people. Second, the misconceptions about United States investments that are current abroad, especially in vocal intellectual circles, are so damaging to the basic cause involved that unless they are counteracted not much headway will be made in increasing popular understanding about the contributions which foreign investment makes to the improvement of the less-developed countries.

Congress should give serious consideration to the need for additional funds for studies of the impact of United States private foreign investment on the economic growth of foreign countries, roughly on the order of the Department of Commerce study recently completed that deals with Latin America. Information of this kind has already effectively countered some of the unfounded comment on the subject. The true and very important facts about investments must continually be given suitable publicity.

Simultaneously, it will be necessary to find concrete methods by which officials of the United States government are able to help improve both the local enterprise base, the volume and scope of local private enterprise, and understanding within the circle of local enterprisers that expanded American investment is entirely consistent with solid opportunities for the growth of local industry of all kinds. A thorough case study of recent Mexican experience should prove to be a worthwhile endeavor, for that experience clearly shows how local opposition to expanded American investment was overcome when people generally came to realize that, if anything, expanded American investment in Mexico increased rather than reduced the opportunities for profitable investment by Mexicans.

What is required is first of all a general awareness of the problem just outlined. Once this is recognized, and the challenged understood, it should be only a matter of time before an effective solution is found.

MR. SALERA. In that connection, Mr. Chairman, I think it would be helpful for Americans who are interested in these problems to have more of the basic facts. India is in the picture today to a considerable extent; I think the American public should have a greater awareness of the implications of the kind of planning that is going on in that nation.

I realize that this problem is their problem. They are a sovereign country. We should not tell them how to run their affairs. My point in raising this is that if they wish to proceed along certain lines, then

that decision on their part has implications as to what they can reasonably expect the outside world to do if there are substantive differences in the outside world as to the feasibility and wisdom of their course of action.

I would like to call attention in this connection to the existing policy of India with respect to the division of major industries as between the Government and the private sector.

I am going to read from a publication of the Reserve Bank of India, dated April 30, 1956, which set forth the industrial policy resolution.

I am reading from the appendix to that particular publication.

The following industries are enumerated in schedule A and they are earmarked or reserved for the Government. The existing private firms in these categories may continue and expand if they wish, but new ones may not enter. Here are the industries in schedule A:

Arms and munitions.

Atomic energy.

Iron and steel.

Heavy castings and forgings of iron and steel.

Heavy plant and machinery required for iron and steel production.

Mining.

Machine tools, and such other basic industries as may be specified by the central Government.

Heavy electrical plants.

Coal and lignite.

Mineral oils.

Mining of iron ore, manganese, gypsum, gold, diamonds, and copper.

Minerals for atomic energy.

Aircraft, air transport, railway transport, shipbuilding, telephones and cables and wireless equipment, and the generation and distribution of electricity.

Schedule B in the very same policy statement, which is current Indian policy, says that the state will increasingly establish new investments in the following industries, but will allow private firms to enter and expand: All other minerals not enumerated in schedule A, aluminum and other nonferrous metals not specified in schedule A, and machine tools. Then, ferro alloys; basic products for chemical industries; antibiotics; fertilizers; synthetic rubber; carbonization of coal; chemical pulp; and road and sea transport.

The significance of this Indian policy, Mr. Chairman, is this: If it is established government policy that the state is to have these fields to itself—that is, either have it to itself or to participate actively—then there is a very, very serious deterrent to domestic and foreign private investment in those lines. There are two strikes against private enterprise when it is forced to compete against the Government.

Representative MILLS. Dr. Salera, I have never known a private enterprise to fail to compete wherever it is felt that a profit could be made and where it felt that it was not prohibited from competing, even though the government itself might have a policy of expressed interest in regard to the development.

What I am concerned with is exactly what you, the panel, want to accomplish. I am interested in seeing that this lack of resources

in these countries be made up through the investment of private resources rather than the draining of resources from the taxpayers through government, either in a gift or loan to make up that deficit.

Now, what I am asking is this: What practical program can we develop in the Congress? What policies can we change or develop in lieu of what we may have that may offer some degree of hope to the American taxpayer so that during this entire prolonged period of the cold war, it will not be the American taxpayer's responsibility to make up this lack of resources in these countries but that some time or other a growing percentage of those resource needs will be supplied by American free enterprise.

Mr. ASHER. I do not think you should underestimate the role that foreign assistance itself can play in providing the framework for later private investment. All of us here are pro private investment. This is what much of the foreign aid is attempting to do, to lay the foundation for further investment. It probably could do it better than it has been doing it, but I do not think we should assume that, in the absence of foreign aid, we would have the incentives which would get private investment to countries in which our foreign policy seems to require some assistance.

I do not see myself what kind of an interest rate Burma, Pakistan, Afghanistan, and so on could offer that would be politically acceptable in those countries and attract enough private investment to do the development job.

Representative MILLS. Let me interrupt you first. Let's do it within the framework of foreign aid, then. But what can we do in the Congress and in the Government to create an atmosphere that will induce the private American capital transfer to make up a greater percentage of this resource need that exists in these countries?

Now, can we expect American private capital to go into a country where there is uncertainty as to the political continuation of that particular regime or that government or that country itself?

Now, what I am trying to find from you gentlemen is: If you thought in terms of this, what we can do to give added impetus, say, to the transfer of private resources rather than to have to continue to depend during this entire period of the cold war upon these considerable amounts of resources gathered by the Government and transferred to these countries.

Now, isn't there something that we can do?

Mr. BALDWIN. There have been some proposals along the lines of taxing business incomes earned abroad at a lower rate than domestic earnings. This undoubtedly would increase the flow of private capital abroad. Another measure sometimes suggested is that the Government should make guaranties to Americans who invest abroad.

Representative MILLS. I have thought in terms of that myself.

Mr. BALDWIN. If the property of Americans is confiscated, our Government would repay them. A further measure to stimulate private investment that already has been used to a limited extent is the negotiation of investment treaties with other countries. Under these treaties the United States promises to treat foreigners investing in this country the same as we treat our own citizens. The foreign countries make a similar promise and also agree to make prompt and fair compensation in the event of nationalization. There are a whole set

of proposals along these lines that might stimulate private foreign investment.

Representative MILLS. The reason I express this concern is: It is becoming more evident, I think, to everyone, the difficulty that will be encountered from here on in each year in obtaining this very heavy percentage of required dollars for transfer of resources gathered by the foreign government.

In view of the statements that appear almost daily with respect to the waste of resources under existing programs, whether it is true or not, the American people are becoming more and more sold on the fact that this program does represent waste of resources in its operation. Now, it just occurs to me that the greatest service, perhaps, that we can render in this entire field is to think in terms of the implementation by private investment and the gradual elimination of Government investment through grant or loan.

Now, if there are any further suggestions of actions that we might take, I would be glad to hear them.

Professor Schmidt.

Mr. SCHMIDT. I would like to suggest that you put somebody to work—I am not picking on anybody in particular—

Representative MILLS. Could we pick on you? Could we select you?

I know somebody needs to do some work in this field.

Mr. SCHMIDT. To study what can be done to develop further the portfolio market in New York. Very little work has been done about that in the postwar period. I also think someone in the Congress should hold hearings with regard to the treatment of mutual funds with respect to tax offsetting.

One of the major long-run objectives of our Government must be to redevelop the portfolio market. The London market was an important source of capital for many years in the 19th century. We cannot expect private investment to do the whole job until we get that kind of market going again.

Representative MILLS. I have been somewhat fearful at that point that some of the policies that have been developed by some of our friends in the free world with respect to the treatment of investments emanating from those countries and other countries have made it more difficult to encourage the freer flow of American capital outside of the United States and into these countries in implementation of foreign aid or finally in supplying foreign aid.

I think you would share my concern.

Mr. SCHMIDT. This is certainly a serious problem. And this brings up a question concerning a point raised by Mr. Asher. I am not convinced that it is clear that foreign aid does assist the growth of private foreign investment.

The fear that I have is that as we provide foreign aid, we relieve the recipient of the necessity of undertaking to create a more favorable environment. I do not know to what extent this is true, but I think it reasonable that it would happen. And, therefore, I find myself in the position of saying we must use our foreign aid very carefully, possibly even bargaining in order to improve the climate. The Export-Import Bank has done a very good job in several instances in this way.

Mr. BRONFENBRENNER. I should like to comment here on a few points.

First of all, with regard to the question of waste, it would seem to me that the answer to the waste problem—and there is a waste problem—is simply to make the renewal of grants and loans dependent on not having used them wastefully. This is not supervision; this is postcensorship and not precensorship.

You see what they have done that way, and if there has been waste, cut the thing off. And that is the kind of pressure we can exert over them, much more so than interest rates or repayment. You start a program. If it gets wasted, you cut the program off.

Representative MILLS. Let me ask you this question now. Maybe the entire program, as operated in country X is found to be one of waste?

Mr. BRONFENBRENNER. Cut it out.

Representative MILLS. Maybe in that particular country there is more social unrest than in any other country; what do you do under those circumstances? Do you, just because there is waste in the country, kiss that country goodby and let that social unrest gravitate into communism without trying to do more? Is that what you are saying?

Mr. BRONFENBRENNER. All you can do as far as foreign economic aid is concerned would be to cut it out and make that government clean house in order to get more aid.

Now, this is a calculated risk. It may not clean house; it may think you are bluffing; and the result may very well be a country going further toward communism. I cannot see anything better that can be done within the framework of foreign aid.

Representative MILLS. I know, but what do we have in substitution?

I do not want to waste any more than you do in the utilization of any resources, and certainly not in this; but what can we do if we find that this program is so wasteful with respect to country A that we have to discontinue it. Now, what can we do in substitution? Do we have any adequate policy or program that would permit private investment, thinking it could do a better job, to step in when we step out?

Mr. BRONFENBRENNER. It often happens that this very same country is not a desirable country for private investment to come in from the investor's point of view. I do not think there is anything we can do. You have to work with the government. And if the government wastes your aid, the government does not welcome American or other private capital, what can you do within the limits of an economic aid program?

Representative MILLS. Generally a bank would not want within its portfolio a note signed by an individual that somebody else refused to give money to. I guess that is probably true.

Mr. SALERA. Mr. Chairman, there is, I think, a great deal that can be done.

First, however, we must bear in mind that the local government and the local people have the prime responsibility. They have got to attract foreign private investment. You cannot force private foreign investors to do anything. Now, in the second place, I don't think our Government has begun to do the survey work that could be done to point up a thousand and one things that could be done. All the emphasis locally in most cases is on these grandiose plans.

So, some of them do not like to have the Americans around to point out small things in a constructive way.

Representative MILLS Shouldn't that be the responsibility of those who deal in foreign affairs within the executive department, to undertake to impress upon the countries which they deem need development and which they want within the free world sphere the things they have to do in order to attract American capital?

Now, do they do that within these departments of government?

Mr. SALERA. In my judgment, Mr. Chairman, far from an adequate job has been done. The World Bank itself makes studies, some of which are published—though the most significant of which are not published because they would be embarrassing to certain people.

But if the executive branch had done, or will do, work to point up areas of constructive reform consistent with the institutions and mores, and so on, of each country, we would have on the record benchmarks against which to measure performance which we now lack, or largely lack. And lacking that, we are faced with the presentation of grandiose plans and requests for large financing by us—or the risk of being blamed for the failure to achieve the economic growth that others want.

That is a sorry state of affairs, I think, at the present time.

In most of the statements which I have seen, both while in the Government and since, a far from adequate case has been made. I think you folks on the Hill have been right in insisting upon a lot more information.

For example, Congressman Hardy's subcommittee, I think, has appropriately emphasized the problem of information. You folks on the Hill need a lot more information than you are now getting from the executive branch.

One final point, Mr. Chairman: If steps, energetic steps, will be taken in the individual countries to improve performance locally, that will do more than all the other talk and all the guaranties, and so on, that are designed to attract much-needed private foreign investment.

Representative MILLS. Let me ask this final question if I may, then.

You are acquainted, I am sure, with the paper that was prepared by the State Department which is in the compendium in which the State Department points out that because this program of foreign aid only utilizes about 1 percent of our gross national product, it could have little effect, if any, upon economic growth or stability—I do not know whether that is right or not—I am impressed with the argument that is always made in the Congress that if we do not appropriate funds for foreign aid we of necessity must increase our own defense expenditures by an even greater amount.

So that perhaps if we had no foreign-aid program we would have to have transferred into the defense program more than the equivalent of 1 percent of resources.

I wonder if the State Department conclusion, therefore, with respect to the conclusion which this committee has, is well taken? Or if it is not, just how should we view this question of the foreign-aid program in terms of its overall effect on the economy?

Mr. ELLIS. The National Planning Association made a special report to this committee which showed, I think, in some detail, that expenditures on foreign aid are not of such a magnitude as to make a great difference on stability or growth in the United States.

I think that is a reasonable conclusion.

Representative MILLS. Do all of you agree with that statement?

Mr. SALERA. I do not agree with it.

Mr. ASHER. I agree with it.

Professor Baldwin, you do? Mr. Bronfenbrenner docs.

Mr. BRONFENBRENNER. Yes.

Mr. SCHMIDT. I have some doubts as to the relevance of the point.

With regard to the question of military expenditures, I would like to raise one question. If we had spent all of the money spent on foreign aid to develop missiles, would our security be stronger today than it is?

I do not know the answer. But I would point out to you that the conclusion of the Special Senate Committee To Study the Foreign Aid Program was that the military assistance program has not been administered in a way which compared the national security benefits of the domestic and foreign military expenditures of the United States.

The committee said:

Military aid appears to be considered as an end in itself, insufficiently related to the total problem of national defense and its costs.

I regard that as a very important statement with respect to military assistance.

As for the point about 1 percent: If you accumulate a lot of minor numbers, you get a very large one. And, therefore, just because foreign aid is 1 percent of our gross national product does not indicate that we should or should not, or can or cannot use it to stabilize the American economy.

My own personal preference would be that it should be the second last thing to be varied in order to maintain stability.

Mr. SALVERA. Professor Schmidt has preempted my main point, I suspect. If one looks outside of the defense budget he will find that there are very few single categories that amount to as much as 1 percent of gross national product. Thus, we can apply the 1-percent argument across the board and be in a heck of a mess, budgetwise, until the cows come home.

The significant thing is this: Are we doing as much as we can to achieve our national objectives by present means? I do not think that question has been answered satisfactorily by anyone, either at this panel or in the executive branch.

You see, Mr. Chairman, the easiest thing for a diplomat to do is to say, "I think we are going to help you gentlemen financially," and avoid examining the programs very carefully, and avoid the hard work involved in suggesting feasible alternatives.

So there is a built-in bias in the diplomatic level in favor of large financial transfers. And if you had the records, for example, of the National Advisory Council on International Financial Policy, I think you would have documentation on hundreds of cases of precisely that kind. There may be opposition except from our diplomats, who say we have got to offer aid because we will get the dickens in a specific country if we don't. Such tactics carry the day in hundreds of cases.

Mr. BRONFENBRENNER. May I jump into this and grab a microphone and try to sum up on the other side, defending, I think, the executive branch?

It seems that you are dealing with a number of underdeveloped countries which do have certain biases. For example, they like industry rather than agriculture. Why?

Well, the average labor income is higher in industry than agriculture. The industrial peoples have a higher international repute than agricultural peoples. They are advanced. Agricultural peoples are backward. Then some countries prefer government to private investment. They prefer government officials to businessmen. Let us suppose that they are wrong in their own context just as we believe they are wrong in ours.

The fact is we have got to live with them. Now, let us assume that we put in a hard-boiled policy and insist on a more favorable climate to private investment, or insist on the foreign governments doing the development job themselves. What will happen?

I think the main difference of opinion between Mr. Salera, and perhaps Mr. Schmidt, and myself, is this: Mr. Salera and Mr. Schmidt see certain reforms we would like to put into effect. If they were put into effect, then the local capitalists would do more, and American capitalists and other Western World capitalists would do more, and all would be better, if not well.

What I am afraid of is that these reforms would not happen; that the following will happen: These countries will get their aid from Russia, which means trouble for us. They will get it from their own upper classes, and that means confiscation. And they will get it via confiscation from those Americans who are unfortunate enough to be there already. And they will probably end up not merely neutral, but across the Iron Curtain.

So that I frankly would rather support the kind of state socialism, British socialism, even waste money supporting it, than taking the kind of chance that Mr. Salera and Mr. Schmidt are willing to take, of laying down conditions of more favorable treatment to Americans and enacting the kind of reforms we want. I am afraid the results of that would be wrong.

Representative MILLS. I saw Professor Schmidt cringing just a little bit. Maybe he would like to have an opportunity to rebut.

Mr. SCHMIDT. I take it that the connection between my brain and my mouth must have broken. I do not recall anything I said which would allow Professor Bronfenbrenner to conclude that I would take such risks. I would emphasize that in his opening remark he said "and perhaps Mr. Schmidt."

Mr. BRONFENBRENNER. I accept that.

Mr. SALERA. I am another party, so I have to say something, apparently.

To come back to what I said previously, I do not think we should be hard boiled or cold blooded about this. One can be warm and sympathetic in great detail in a great variety of ways, if you take a fairly pragmatic approach to this thing.

As I said earlier, I would propose that we spend not a lot of money financing other people's planning—much of which is very questionable—but in taking a new look and undertaking realistic survey work jointly with the local government, of course (that is necessary, because they are sovereign and we do not want to go in and try to put anything over on them), and by that route we can clarify a lot of issues which are not clear at this moment and perhaps induce a great number

of positive growth-stimulating actions which are not likely to be forthcoming at present. It is important to see that everything builds on everything else. We must both improve the capacity of such countries to borrow from the World Bank and from the Export-Import Bank, attract more private capital, and also go all out to activate resources now latent in these very countries.

So it is not a question of saying you meet our pet little views or theories or else. Heavens, no.

I might say I am not making this comment as an academician, which I am fundamentally. I have talked this way with a number of foreigners down to illiterate peasants, and the initial reaction from these fellows is generally not very good. When you get going, however, and deal with all of the facts, those initial reactions change almost completely.

So I repeat, let us spend a little money checking the fundamentals and not accept some of the many half-baked views about development. And let's trim the hopes with respect to handouts. Then I think we will see a great improvement in the situation.

Representative MILLS. I think all of us have agreed—or the panel has agreed, this morning, that we are not for a foreign-aid program or the transfer of resources to these underdeveloped countries or countries in need of more resources through any relationship or determination of the attainment under the program or partially, at least, of the objectives of the Employment Act of 1946.

We do not support foreign aid or we do not go along with it because of any hope of obtaining any objectives under the Employment Act of 1946.

Now, so that Professor Bronfenbrenner—I saw Professor Bronfenbrenner nodding his head in agreement with me. Let me ask you on the first page of your statement if you have not almost directly related foreign aid to the objectives of the Employment Act of 1946 in your second point when you say, "the volume of our foreign economic aid should fluctuate in the opposite direction to business conditions in this country."

Mr. BRONFENBRENNER. This gets into this political multiplier problem. I do not think that, indirectly, when the time comes to cut someplace, if we do not cut foreign aid, too, the resistance to cuts elsewhere will be much greater.

Representative MILLS. But if we are to have a foreign-aid program for any purpose, the least of the purposes is the maintenance of the objectives of the Employment Act of 1946, I think you would say. So that at the time we need to cut does it always follow that we need to cut our foreign aid to a country because that country, too, will need it less?

I wonder if we are not getting ourselves into a box if we have to support a program for the transfer of assets of resources by Government rather than by private capital.

Mr. BRONFENBRENNER. Let me put it this way: The existence of a foreign-aid program has nothing to do with the Employment Act of 1946. It seems to me that the fluctuations of it might very well be connected with the objectives of the act. This year we have to cut expenditures. The only way to get you gentlemen on the Hill to agree to cutting for Americans is if we cut for foreigners also. So that the general level of the ocean as far as foreign aid is concerned

should not be connected with the Employment Act. Year-to-year fluctuations, I think, to some extent might very well be connected with business conditions at home.

Representative MILLS. In the consideration of the appropriations for foreign aid, the Congress determined this year to reduce it. I do not know that it results in any feeling that it ought to be reduced because business was so good at that particular time.

But it was necessary for us to make additional appropriations available even though business was so good.

Mr. BRONFENBRENNER. In other words, the overall level was too low. It is not that the fluctuations should be avoided, but the overall levels around which the fluctuations occur should be raised or lowered if you take other people's positions.

Representative MILLS. I do not want to pursue the point because I have no disposition to do so. However, I thought maybe you were trying to bring it into the objectives of the Employment Act of 1946.

You say you were not?

Mr. BRONFENBRENNER. That is right.

Representative MILLS. Mr. Asher?

Mr. ASHER. I would think it is virtually impossible to use foreign aid, which is a small straw in our total expenditure, as very much of a stabilizing device. When you checked before on the feelings of the panel about how important the present aid levels were to the domestic economy, there was widespread agreement here that they were not very important. And it would follow then that minor variations in those levels are still less important.

Furthermore, when you read the record of the hearings on foreign aid, and you get the discussion—in fact you get pretty tired of it—of the pipeline, and you realize that there is quite a long process here before any change in the appropriation level, any decision to change the expenditure level, actually takes effect.

I think it is very clear that the effect on economic conditions at the time the effect becomes apparent could be different from what it was expected to be when you made the decision. This would argue that you cannot use this little item, which we all agree seems to be justifiable primarily on foreign-policy grounds, as a kind of domestic stabilizer.

Mr. SALERA. I would like to supplement Mr. Asher's statement. I would simply make a more specific point about the lag. You see you might do the sort of thing Mr. Bronfenbrenner suggested, but it may take effect a year and a half from now. And at that time it may be precisely the opposite of what is desired. We must remember that our predictive techniques are still rather imperfect. Secondly, we have other and much more controllable means of effecting domestic stabilization. But I think both of these technical economic points are peanuts by comparison with the real thing: How would the Soviets and their friends use this?

You see, there is a strong attitude prevalent, very, very prevalent, in most of these countries—the familiar line to the effect that American prosperity, well, "You Americans would be in a mess if you were not able to dispose of your surplus to us," and that sort of thing.

So I would deny them every opportunity to use that hoary Marxian line. Incidentally, I have seen some Latin American diplomats plug

that line and get a tremendous roar from the audience. So I say, do not give them a chance to do that.

Mr. BALDWIN. It seems to me to be unwise to use these expenditures as a countercyclical weapon. You may prevent the attainment of the objective you are trying to achieve. Most of the development projects undertaken by the poor countries will take many years to complete. If you cut the flow of funds to them because we are experiencing inflation at home, you tend to disrupt these long-run projects. I would argue for foreign-aid expenditures on a long-run basis. We should, I think, make commitments for at least a 5-year period. Turning foreign aid expenditures off and on tends to thwart the economic objectives that these countries are trying to achieve.

The only argument I can see for using these expenditures in a countercyclical manner is a political one. Perhaps the reduction of foreign-aid expenditures in an inflationary period and an increase in a deflationary period would enable us to push more successfully for a higher long-run level of these expenditures. But this would be purely a question of political strategy.

Mr. BRONFENBRENNER. This is just a very minor check. Mr. Baldwin misunderstood me on a point. I am not in favor of turning individual programs on and off, off and on; I am simply saying the amount of new commitments which we undertake, for example, the amount of aid we give new long-range programs should vary with economic conditions here; not that existing ones be cut off. Also I am very much in sympathy with the discussion regarding the pipeline. I think the only reason that can be adduced to varying the level of foreign economic expenditures is reaction on congressional voting on more domestic expenditures. I think there is a political multiplier, though I do not know what it is. And I gather that most of the panel feel otherwise.

Representative MILLS. Professor Schmidt?

Mr. SCHMIDT. One fact alone is sufficient to prevent the utilization of military assistance to stabilize the American economy—that fact is that the lead-time on military assistance is about 2½ years.

Regarding Professor Baldwin's important point about long-run programs and long-run growth, the only theoretical solution is to develop a stockpile of aid commodities somewhere in the middle of the ocean. We would contribute to that stockpile at varying rates for our own stability and draw from it in terms of the recipients' programming. Obviously this is not feasible.

Representative MILLS. That may be a good note on which to adjourn.

The committee will stand adjourned until 2 o'clock this afternoon. We will reconvene in this room.

(Whereupon, at 12:33 p. m., the subcommittee recessed, to reconvene at 2 p. m., the same day.)

AFTERNOON SESSION

Representative MILLS. The subcommittee will please be in order.

The hearings of the subcommittee on fiscal policy continue this afternoon with an examination of Federal expenditure programs in the area of natural-resource development.

It has been pointed out in previous panels during these hearings that natural-resource development and the efficiency with which these

resources are used play a major part in determining the rate of growth of the American economy. In addition, it frequently has been suggested that one of the principal areas in which variability in Federal expenditures can contribute most to economic stability is this area of natural-resource expenditures.

The postwar developments in atomic energy have unfolded for us the possibilities of natural-resource exploitation with seemingly limitless potential for progress. At the same time, the rapid rate of growth of the economy since the end of the war has created numerous problems in the use of our natural resources, particularly in connection with our water resources. These two areas have been emphasized in the subcommittee's inquiry into Federal expenditure policies, but this emphasis should not be construed as excluding interest in other natural resources and their relationship to the Nation's economic development.

Each panelist will be given 5 minutes in which to summarize his paper. We will proceed in the order in which the papers appear in the compendium, and we will hear from each panelist without interruption. Upon completion of the opening statements, the subcommittee will question the panelists for the balance of the session. This part of the session in preceding panels has been informal and we hope it will be equally so this afternoon. All members of the panel should feel free to participate—commenting on papers presented by other panelists, on subcommittee members' questions, and raising questions of their own.

Dr. Otto Eckstein, professor of economics at Harvard University, will be heard first. Dr. Eckstein.

STATEMENT OF OTTO ECKSTEIN, PROFESSOR, DEPARTMENT OF ECONOMICS, HARVARD UNIVERSITY

MR. ECKSTEIN. The increased need for defense expenditures requires that Federal programs in other fields be scrutinized with particular care. While it would be a grave error to cut essential public services that are of great benefit to the welfare of the country, it would be an equal error to engage in activities that do not possess strong justification at this time. For with the possibility of tax increases looming ahead, every Federal dollar spent should yield a benefit sufficient to compensate for the increase in taxes that it causes. This paper examines expenditures for water resource projects from this point of view. To summarize our conclusions: There are a substantial number of projects that thoroughly justify their costs at the present level of economic activity. But something like half of the projects under consideration will not increase national income by an amount in excess of their money cost, much less their cost in terms of foregone Federal expenditures in more critical areas.

THE ECONOMIC JUSTIFICATION OF PROJECTS

Water-resource projects are not considered justified unless it can be shown that benefits exceed costs. In fulfillment of this requirement, project-building agencies present benefit-cost ratios, which must be in excess of 1.0. However, the concepts of benefits and costs that are employed are too loose, resulting in excessive claims for benefits.

A large part of the so-called indirect benefits are of this nature; in the full-employment context in which projects are justified, they represent diversions of income from one place to another, not additions to national income. Interest rates used to measure capital costs are very low, and there are numerous other sources of bias specific to the various fields of water-resource development.

Were more realistic economic standards applied, a significant share of projects now being built or intended for construction would fail to have benefits exceed costs. Out of the \$6.6 billion of ultimate cost of projects included in the recent budget, \$3.7 billion represent projects with benefit-cost ratios of less than 1.6. Given the magnitudes of the biases in the methods of benefit and cost estimation, there is reason to believe that the largest part of these projects is not economically justified.

The reason for the inclusion of these submarginal projects is not far to seek. The low level of user charges and local contributions, usually only a few percent of cost in the case of irrigation, navigation, and flood control, make projects a windfall to the beneficiaries, and hence great pressure for projects is generated. A substantially higher level of charges on beneficiaries would do more to improve the quality of the program than any other single step.

The benefit-cost ratios are designed to measure the impacts of projects on the real national income. Clearly there are other objectives and it might be argued that even if a project serves to diminish the national income, it may be justified on other grounds. Regional development is an oft-cited objective. Clearly, sufficiently large expenditures on transportation facilities, power, or other factors of production will give a region locational advantages which will trigger a certain amount of growth. But two important qualifications must be kept in mind. First, in a period of full employment or even inflation, most of the generated activity is at the expense of some other region, that is, the total amount of private investment is little affected; it is only the choice of location that is influenced. Second, there are serious hazards in the creation of regional economies under hothouse conditions. Dependent as they are on continued largesse of the Federal purse, they generate political pressure for ever more projects.

There are other objectives, of course, the settlement of sparse areas, the creation of family-farm opportunities, the redistribution of income, etc. Each citizen and each legislator must value these for himself. But it should be made clear that where a project is not justified on its economics, there are substantial costs in meeting these other objectives.

WATER-RESOURCE PROJECTS AND BUSINESS CYCLE POLICY

All these comments assume that there is little unemployment. In the event of depression, the real costs of projects to the country decline, as some of the resources absorbed by projects would have been idle. And among the benefits, the stimulation of employment and purchasing power may be the most important. Thus, projects which cannot be justified in times of prosperity may well be appropriate as part of a depression policy. Water-resource projects would only be feasible countercyclical devices in time of a major depression, due to their long planning period.

THE PARTNERSHIP APPROACH

In recent years, there have been strong attempts to turn over more of the task of water-resource development to local and private groups. Progress has been relatively slow because beneficiaries are reluctant to surrender the subsidies that accompany Federal development. Should the partnership program become larger, there are some serious legal and administrative problems that must be faced. In order to assure the best possible development of the economic potential of our rivers, means must be found to permit private companies to be recompensed for providing nonmarketable benefits such as flood control, or in the event compensation is impossible, supply of such services must be made a condition to the issuance of FPC licenses. Also, private projects must be part of an integrated system; water-storage policies in reservoirs should not maximize the output of the particular installation, but of the entire river system. On rivers such as the Columbia, where public projects are downstream from private dams, hydrologic integration can only be achieved if Congress authorizes public agencies to recompense private companies for the downstream power benefits which they can provide.

CONCLUSION

The budget for 1958 calls for expenditures of \$850 million by the major project-building agencies. Some of these funds are needed for operation of projects that are well advanced and economically justified. However, no new projects should be started unless their economic justification is beyond question using sound methods, and there need be no haste to complete some of the projects that have little economic merit. A substantial saving, perhaps on the order of 100 to 200 million dollars, can be made in this part of the Federal budget.

To improve the quality of the programs, the following steps are suggested:

1. Improve the standards of benefits and costs used for project evaluation;
2. Strengthen the process of review in the executive branch;
3. Raise the level of charges on beneficiaries; and
4. Make legal and administrative changes to assure that partnership projects develop our rivers as efficient, integrated systems.

Representative MILLS. The next panelist is Prof. Martin Glaeser, department of economics and commerce, University of Wisconsin.

STATEMENT OF MARTIN GLAESER, PROFESSOR, DEPARTMENT OF ECONOMICS AND COMMERCE, UNIVERSITY OF WISCONSIN

Mr. GLAESER. After a preliminary discussion of some of the historical circumstances that have attended the utilization of our water resources, the main thesis of the paper was presented that policies looking toward economic growth and stability should take as their starting point a basinwide plan for their development. Inevitably, perhaps, economic and noneconomic wants that cluster around water resources are so fundamental and the resources themselves have come to be so scarce that practically all our institutional arrangements have become increasingly collective. In order to preserve these resources

and yet make them available at the least cost to the greatest number, our capitalistic arrangements have utilized economic criteria derived from certain dimensions of economy. We distinguished them as economies of the load factor, economies of the diversity factor, economies of the scale of operations and economies of joint cost.

In working out a scheme of coordination in the sharing of these water resources three distinct approaches to the problem have been used. I distinguished them as follows: (1) The States rights-interstate compact approach as exemplified by the development of the Colorado River; (2) the Federal departmental approach, latterly modified into a partner-partnership plan which enlists the cooperation of local regional agencies, and of which the handling of the water resources of the Columbia River Basin are the best illustration; and (3) the regional Federal corporation approach best exemplified by the Tennessee Valley Authority.

In working out these various approaches, many different kinds of problems were encountered. One important one relates to the procedure in planning, authorizing, and appropriating Federal and other funds for financing the improvements. Questions of physical feasibility and particularly economic feasibility arise, answers for which have been sought in the technique of benefit-cost ratios. Answers so obtained have come in for an increasing measure of criticism because they do not adequately measure the relative desirability of a given project in comparison with others. All of these considerations come to a head when the time comes, after the improvements are in, to make allocations of cost for purposes of reimbursements and for ascertaining the long-run costs of the various undertakings.

To this end the problem of cost allocation was examined and particularly the formula devised by TVA in allocating joint costs. This formula has been continuously and consistently applied and has provided a means of booking these costs, so that the results of operation may be subjected to some rational criticism. Federal expenditures for the development of water resources have long needed this type of accounting so that questions regarding economic feasibility, remunerativeness of operations, and degree of subsidization may find some reasonable answers. The paper concludes with some comments regarding other current issues arising out of the basinwide and multiple-purpose handling of our water resources. The most pressing of these arise from the subsidization of operations through tax avoidance.

Representative MILLS. Our next panelist is Prof. Lawrence G. Hines, department of economics, Dartmouth College.

STATEMENT OF LAWRENCE G. HINES, DEPARTMENT OF ECONOMICS, DARTMOUTH COLLEGE

Mr. HINES. My comments are sufficiently brief that I could almost have stayed at home. What I should like to do is to outline to you very quickly the two major points in my paper which consist of the following:

(1) The conclusion of resource-development expenditures as a means of regularizing or stabilizing economic activity; and (2) a very brief examination of the nature of benefit-cost analysis procedure, which is sometimes employed by Federal agencies to demonstrate the effectiveness of Federal economic investment.

The conclusions are as follows:

1. That for the most part, Federal expenditures policy for resource development lacks sufficient flexibility, that is, the facility to initiate construction quickly and terminate expenditure upon short notice, that is necessary to provide reliable means of counteracting moderate changes in employment and income; and

2. That the use of benefit-cost analysis has not necessarily resulted in the optimum resource distribution between the private and public sectors of the economy. This concludes my summary.

Representative MILLS. Thank you.

The next panelist is Dr. Karl M. Mayer, of Washington, D. C.

STATEMENT OF KARL M. MAYER, WASHINGTON, D. C.

Mr. MAYER. Thank you.

The opinions I will express are my own and do not necessarily reflect the opinions of my present employer, A. C. F. Industries, Inc.

Many studies have been completed in recent years which indicate the economic setting within which nuclear energy will find itself as a competitor in the energy, fuel, and power economies of the United States during the foreseeable future. The results of the studies may appear to differ in many respects; however, one is repeatedly led to the same conclusion; the market for nuclear energy in the United States energy, fuel, and power fields is one of the most unattractive markets in the world.

The cost of nuclear energy will have to be reduced drastically from presently estimated levels to extremely low levels in the United States if any impact (or growth) is to be expected in the years ahead if reliance is placed on economic forces alone. Nuclear energy delivered at prices substantially above United States competitive levels are still very attractive to energy, fuel, and power users in overseas areas such as western Europe. Costs of nuclear energy will have to be reduced far less in places such as western Europe than in low-cost energy markets such as the United States in order to become competitive with conventional sources of energy.

If we seek to foster the growth and development, or even survival, of our peacetime nuclear industry, we must soon recognize concretely the need for subsidies of one form or another.

The amount of the subsidy needed to support activities in the United States will be greater than the amount needed to keep American industry active in the European markets for the economic reasons cited. Serious consideration should be given now to the possibility of supporting the American nuclear industry in its attempt to gain a foothold in high-fuel-cost markets overseas and in order to be available when needed in the United States.

I would like to present a few pieces of data that bear on my brief summary.

Representative MILLS. Yes, sir.

Mr. MAYER. I will talk from the charts which I have here on the easel.

Just briefly, I should like to show a few charts which bear on my comments. We have here in the first chart an estimate of the flow

of energy resources in the United States. This happens to be an analysis showing 1947 data. However, the relationships of the energy flows in the United States will not be very far different in 1957. We note here, and the main thing that I would like to bring out, that the major blocks of energy are going to produce electric power, industrial heat, transportation (motion), and space heating.

Looking at the flow of energy into electrical power, here we have a projection of consumption of power in both the United States and the Western World, the combined consumption of power in kilowatt-hours per year in the 1950-80 time interval. I merely present this to show the very large projected increase in the use of energy for power generation, and similar curves could be drawn for other energy flows not quite as steep as my power projection.

Keeping in mind the previous projection of total power consumption in this time interval, we note on this third chart the very large rate of increase in power consumption in underdeveloped countries. However, in the developed countries of Western Europe and North America, we note that the increase in power consumption in absolute terms is, of course, much larger and overshadows the power to be consumed in this time interval in the underdeveloped areas.

This, then, might indicate that perhaps the United States market, the market in North America today, and Europe, both, are good markets.

This fourth chart is shown to illustrate the difference. Although we expect in the time interval between now and 1970 to be consuming large blocks of additional power in the United States, or in North America, just as large as in Europe, we see that the cost of the power consumed in North America is far to the left here, that is, at very low cost levels, whereas the power to be consumed in Western Europe or in other areas is displaced to the right, up toward higher cost levels. In other words, if we were to be able to produce nuclear power, say, at 15, 14, or 13 mills, we would have a fairly significant market in Western Europe, but no market in the United States, since it doesn't begin to become interesting until 8 or 9 mills per kilowatt-hour.

If we were to begin to subsidize nuclear power, then, it would seem to make more sense to subsidize nuclear power for Western Europe rather than for the United States.

My next to last chart which I am presenting now shows that we could expect, if nuclear power costs were to fall in the manner suggested on this chart, a fair growth of nuclear power in the United States. However, even with a drop in the cost of nuclear power as rapid as I have shown in the previous chart, we can see here that by far the most attractive market in the world at costs of 14, 13, and 12 mills per kilowatt-hour will surely be in Europe rather than in other areas of the world. The market in the United States would be a very small fraction of the total world market.

With that I will conclude my remarks.

Thank you.

Representative MILLS. Thank you.

The next panelist is Mr. Perry D. Teitelbaum, economist, Council for Economic and Industry Research, Inc.

STATEMENT OF PERRY D. TEITELBAUM, ECONOMIST, COUNCIL FOR ECONOMIC AND INDUSTRY RESEARCH, INC.

Mr. TEITELBAUM. The next 25 years will undoubtedly see the large-scale entry of nuclear energy into a variety of peaceful uses as part of a rapid growth in domestic energy consumption as a whole.

In these few minutes, I shall present estimates of the magnitude of this entry in relation to that of the conventional fuels in meeting our energy needs. I shall also attempt to assess the implications of these projections. Considered broadly, these projections of the pattern of energy supply and demand may provide useful background to this panel, since the economic growth effects of Federal expenditures on atomic energy can only be appraised from a long-term point of view.

I would like to direct attention to the chart on the easel.

By the end of the next quarter century, say 1980, total energy consumption will approximately double as compared to the present, in conjunction with even more rapid growth in the rest of the economy.

This chart shows the composition of primary energy supply in 1955 and the projected composition in 1980, based on a fairly extensive study in which I have been engaged for the past 2 years.

Whereas we consumed less than 450 million tons of coal in 1955—the grey and black section to the left on the chart—total energy consumption in all forms in 1980 will exceed the equivalent of 3 billion tons of coal.

Approximately half of this total will involve applications in which nuclear energy may be competitive, such as electric power generation, industrial heat in manufacturing, railroad locomotion, and ship propulsion.

I do not have a chart showing the consumers of these quantities of energy in terms of what I am talking about, but if you think of the bar on the right, approximately half of its height falls in these categories in which nuclear energy in a fairly broad sense may be competitive.

Nuclear energy is projected to supply about one-sixth of the energy consumed in these competitive applications so that less than 10 percent of the total energy supply for all uses—equivalent to 270 million tons of coal out of a total of over 3 billion tons—would be nuclear.

Relative to the nuclear component by itself, almost two-thirds of the nuclear energy would be consumed in electric power generation, with half of the rest used to supply industrial heat in manufacturing.

If nuclear fuels supply less than 10 percent of the total energy required, the overwhelming bulk will be supplied by conventional fuels. Almost half of the nonnuclear energy will be in the form of liquid fuels, with the balance about equally divided—as it is at present—between coal and natural gas. Hydropower will not bulk large in the overall energy balance.

The conclusions of the study from which these projections are derived, and their implications for future economic growth and for emerging questions of energy policy, are these:

First, potential supplies of coal, oil, and gas available to the United States appear sufficient to meet projected demands at no more than a 15- to 20-percent increase in real costs over the next quarter century. Nuclear energy will thus become competitive in the United

States only through substantial technical progress with resulting cost reductions.

Second, all forms of primary energy will be called on to meet the rapid growth of total energy demand. As an additional energy source, nuclear energy can help supply part of the growing boiler and propulsion fuel needs, thus reducing the pressure for price increases in fossil fuels. Aside from the beneficial effects that this will have for economic growth generally, as well as for particular energy-intensive industries, the economic development of such high energy-cost regions as New England and upper Mississippi Valley will be stimulated by reduced energy cost differences between regions.

Third, nuclear energy alone cannot relieve the Nation's growing dependence on fluid fuels, secured in part from lower cost but strategically vulnerable foreign sources. Aside from the contribution of nuclear energy in special applications such as ship and rail propulsion, the United States economy must look mainly to a domestic synthetic liquid fuels industry, from oil shale or coal, to lessen the dependence on imported petroleum.

Fourth, owing to the close interrelations existing between different energy sources and between domestic and overseas supplies, in meeting projected requirements, the Nation for many years has needed and still needs an overall energy policy. While recognizing that nuclear fuel has already multiplied the Nation's energy potential, such an overall policy should be concerned with broadening the energy base and assuring supplies at minimum cost, consistent with considerations of national security.

Finally, the economic growth of other advanced industrial nations of the free world is seriously threatened by the constraints imposed by inadequate energy sources at reasonable costs. With proper management of our resources—including synthetic liquid fuels and nuclear energy—there need be no similar problem here. We will therefore be able to meet the expanding energy needs implied by the rapid economic growth foreseen in the United States during, and far beyond, the next generation.

Representative MILLS. Thank you.

Our next panelist is Mr. Philip Mullenbach, research director, nuclear energy study, the Twentieth Century Fund.

STATEMENT OF PHILIP MULLENBACH, RESEARCH DIRECTOR, NUCLEAR ENERGY STUDY, THE TWENTIETH CENTURY FUND

Mr. MULLENBACH. Thank you, Mr. Chairman.

My comments are a continuation of the combination paper that Mr. Teitelbaum and I prepared together. My remarks go mainly to nuclear energy expenditures and national policies.

The Federal Government is now spending, as best we can estimate, roughly \$150 million to \$175 million annually for the purpose of developing economically competitive nuclear power in the United States. Industry is also spending a substantial, though much smaller sum. In addition, the Federal Government is investing roughly \$300 million annually in developing power reactors useful for military purposes.

The Nation's civilian reactor program is mainly a research and development one. Scientists and engineers are still in the process of learning what they do not know about generating electric power from nuclear fission. Perhaps as much as a decade will be required to achieve nuclear power that is competitive in the United States. Early achievement appears unlikely.

First, many of the technical obstacles to practical, reliable, and efficient reactors have proved to be tougher than anticipated in 1954 when the AEC set down its first reactor development program. The prospect now is for a long and costly program of searching, testing, and pilot-plant construction.

A second set of obstacles is economic: There is no immediate and urgent need for nuclear power in the United States. The supply of conventional fuel is assured, higher energy costs are not threatening and at present there is no assurance that nuclear power can soon approach the low costs of conventional power generation in most parts of the country.

The third set of obstacles is institutional, in the broad economic sense: Private industry's participation in nuclear power development has been aided by many forms of governmental assistance as contemplated by the Atomic Energy Act of 1954. But in the absence of near-term profitable operation of nuclear powerplants, the principal customers for reactors—the regulated and investor-owned public utilities—cannot be expected to risk large sums in the construction of more than a few plants.

We should recognize that one of the main incentives for private utility participation has grown out of the longstanding private and public power controversy. The fear of public power's extending its scope through Federal nuclear-energy plants is a fundamental motivation. But the manufacturers of reactors are now concerned that, in the absence of more tangible motivation, it may be many years before commercial sales in volume will be possible. The manufacturers are finding the cost of maintaining participation during this development phase much greater than they expected. And they recognize too that much experience in the design, engineering, construction, and operation of reactors is needed to achieve the low-cost plants ultimately required in the United States. Therefore, many observers conclude that greater Federal support will be needed to bridge the gap during the next several years.

The foreign energy situation could contribute greatly, too.

The need for nuclear energy abroad, particularly in Western Europe and Japan, is much more urgent than here at home. The domestic gap might be filled by strong American participation in the reactor programs of friendly foreign countries, particularly among the six nations of the European Coal and Steel Community (in Euratom). Were joint arrangements to be successfully worked out with Euratom, the two-way benefits could be substantial. The Euratom countries could make the first tangible step toward meeting their 15-million-kilowatt target for 1967, and the United States would secure the experience of designing and constructing full-scale pilot units where the competitive-cost threshold is not so hard to meet.

However such foreign requirements may be met, the Federal expenditure program will probably still be called on to carry even greater costs of research, development, and pilot-plant construction. In our

paper submitted to the subcommittee, I have suggested six criteria for evaluating this evolving program:

Is the program supporting the major national policy objectives of achieving economic applications of nuclear energy through joint Government and industry efforts and also achieving the goals of the President's atoms-for-peace program, necessitating wider international cooperation?

Is there a marked disparity between the degrees of progress being made in the military and civilian reactor-development programs?

Is technical progress toward economically useful nuclear reactors being sustained, and are technical breakthroughs being fully exploited?

Is the program assuring efficient and reasonably full use of both Government and industry resources of technical and scientific talent?

Is the program being executed in a way that does not accentuate the private versus public power controversy?

Finally, in encouraging wide industry participation, are the forms and degrees of Government assistance clearly identified so all may see?

These are difficult questions, but still not all the pertinent ones. Such comments on them appear at the end of our paper (p. 726 et seq.). There it is also suggested that, if our major policy objectives are to be met, we shall need soon to demonstrate nuclear power in pilot-plant facilities and hence be in a position to have something practical to offer other countries. We do not have it now. The key issue, as I see it, is how to augment, through AEC leadership, the pace of the domestic development program in order to fulfill the needs and promise of the atoms-for-peace program.

Thank you, Mr. Chairman, for the privilege of participating in this discussion of Government expenditure programs.

Representative MILLS. Mr. Richard A. Tybout, associate professor of economics of Ohio State University, is unable to be present. His prepared statement will be placed in the record at this point.

(The statement referred to follows:)

SUMMARY OF ATOMIC POWER AND ENERGY RESOURCE PLANNING

(By Richard A. Tybout, associate professor of economics, the Ohio State University)

Energy consumption is correlated with economic growth over a thirtyfold to fortyfold range of per capita national income. Underdeveloped countries eager for improved standards of living, developing economies which have tasted the fruits of economic progress, and mature economies determined to preserve and enhance their material blessings are alike concerned with access to adequate energy supplies. The more important these become when account is taken of present and expected future rates of population growth.

Energy needs in the various regions of the world will confront unequal energy resources. Solid-fuel reserves are best in North America, the Soviet Union, and China. These regions will not experience adjustments as a result of coal shortages in the 20th century. Western Europe, the world's historic coal-exporting region, is facing increasing difficulties in keeping coal production abreast of needs.

Fluid-fuel reserves are concentrated in the Americas, the Middle East, and the Soviet bloc. Western Europe is completely deficient, and China is thought to have little fluid fuel. World reserves are unlikely to meet projected needs for the remainder of the 20th century. North America will be affected more than other regions because of its greater consumption of fluid fuels in relation to total energy, but economic adjustments will be ameliorated and postponed beyond the end of the century by the use of oil shales and coal hydrogenation.

The underdeveloped regions of the world tend also to be the fossil fuel haven regions. These are Asia, except for the Soviet Union, China, and the Middle East; Africa; South America (after exhaustion of oil reserves); and Oceania.

Replaceable energy resources, falling water, vegetable matter, solar energy, and others account for about 20 percent of world energy consumption today, but most of this is in the form of fuel wood and farm wastes. In the United States they account for only 3 percent today, but this may be expanded to 10 percent or more by increased use of solar energy for space heating and other developments by year 2000. There are unexplored avenues of technological developments which seem worth further study. Some contribution may be made by improvements (great improvements are required) on the carbon-fixing processes of nature, while improved collection and storage devices for solar energy could be important, especially to underdeveloped nations.

Atomic energy offers a new avenue for at least a partial solution of the world's energy needs. If we find that fissionable fuel regeneration can be economically achieved, world fuel reserves will be multiplied 10 or 20 times beyond present economically recoverable estimates of fossil fuels.

Despite the high promise of these findings, it appears that atomic energy is destined to serve only large bulk energy consumers, except in military applications, where cost is not a deterrent. The most promising commercial applications are in electric-power generation, particularly in large plants, in certain industrial process heating uses, and in central district space heating. None of these have costs as low as their conventionally fueled counterparts today, but are expected to become economic within the next decade or two. Mobile units, even as large as in merchant ships, appear to be hopelessly expensive in the foreseeable future. In small, independently driven vehicles, such as the automobile, atomic energy is ruled out as a result of the massive shielding necessary to contain radiation, if for no other reason.

In view of these limitations, it appears that nuclear power can satisfy only about a quarter of our energy needs without adjustment in consumption patterns. Such adjustment might take the form of more consolidated living in urban centers, where central district heating can be economically utilized, more reliance upon electrification for transportation, and perhaps other changes. These are not likely to be important within the 20th century.

The mature economies of Western Europe and Japan seem most likely to use nuclear power profitably within the next decade or two. These regions are already facing delivered-fuel costs twice or more those of the United States. Certain developing economies, like Brazil, and perhaps underdeveloped countries as well, facing high costs of conventional fuels due to their transportation over long distances, may find economic applications of nuclear power, but these will be limited, especially in the underdeveloped countries, by the number of markets in which large, or even moderately large, outputs of power can be consumed.

The United States is the center for the development of civil atomic-power technologies. A number of programs for training, dissemination of technological information, and foreign aid in reactor development have been instituted as an integral part of United States foreign policy. These are backed by programs of research and development organized by the United States Atomic Energy Commission and cooperating industry groups.

AEC finances and directs programs of basic research and has committed \$500 million to \$600 million for applied research in civil atomic power through fiscal year 1958. It is furnishing \$159 million of assistance to private atomic-power producers through cooperative financial aids. Finally, AEC has established price guaranties which will account for 10 to 25 percent of the cost of atomic power to the middle of 1963.

Private investment in atomic-power stations is also being aided by non-AEC policies. These include the award of rapid amortization-tax treatment for atomic powerplants, public indemnification of reactor owners, and ratemaking policies for full recovery of atomic electric-power costs, though higher than those of conventionally generated power.

The high priority reflected in these aids is not necessary from the standpoint of the domestic energy economy, but must be interpreted as an aspect of foreign assistance. Granted the long-term importance of nuclear power, it will not solve the fluid-fuels problem, and electricity generation from coal seems safe enough for the remainder of the present century in the United States. The mature economies of Western Europe and Japan, as well as certain less well-developed regions of the world, are not so favorably situated.

Another aspect of the question of the necessity of public aids is whether in their specific form they seem conceptualized to provide a useful, natural division of labor between business and Government and whether they are easily integrated within existing American institutions.

Public policy in atomic energy seeks to cull from a defense technology such commercial and peaceable applications as hold reasonable promise of improving the standard of living. Apart from the desirability of supporting basic science, there are economies in building a commercial industry where important supply functions have already been developed to support military programs. It is likely that similar situations can be found elsewhere in our defense program and that other civil developments might gain from a base already established at public expense if similar public programs were undertaken by other defense agencies.

In order to insure maximum public benefit from byproduct commercial applications, it is necessary that they be grounded upon a broad competitive base. Normally, defense contracting makes no special provision to introduce new technologies to the industrial community at large. Public policy in atomic energy differs from the normal practice in promoting the dissemination of technological information by various means, including the training of employees of firms otherwise outside the atomic-energy program.

Private atomic-products industries are now in the earliest stage of their development. AEC information aids have been useful and should be continued at least as vigorously as in the past. At the same time, the most effective way in which business firms can acquire knowledge of commercial atomic technologies is through the holding of AEC reactor-development prime and subcontracts. The greatest support that could be given to competition in future atomic industries would be through increased participation in such contracts.

Representative MILLS. Thank you, gentlemen, for your statements.

This morning we decided to depart from our usual procedure in panel discussions, of asking questions in the beginning of this informal part of the session, and invite the members of the panel who have had an opportunity of reading papers in the compendium prepared by other panelists, to undertake a discussion of any point of difference that may exist in their thinking, and the thinking set forth in any of the other papers.

I wonder if, in the instance of this panel, there might be some such discussion at this time. Professor Eckstein, would you care to comment on anything that you have read in the papers prepared by other panelists?

Mr. ECKSTEIN. Well, if I may address myself to the three gentlemen who worried about atomic energy, I would like to ask them a question.

In part, my question was answered by the summary statement of the last speaker. I was very much impressed by their figures showing that atomic energy was not anywhere near to being economic in the United States, and I was wondering if the sudden Russian propaganda campaign in science doesn't really call on us to change our whole attitude toward this atomic energy development program.

Representative MILLS. Would one of you gentlemen desire to respond to that question?

Mr. MULLENBACH. I'll try. I don't think there is any simple answer as to what effect the Soviet's program might have on our own civilian nuclear energy program. Speaking directly to the Soviet's nuclear power program, it appears that they are not now pressing the generation of electricity by nuclear reactors very heavily—and in fact recently cut back their targets. The main direction of their civilian effort appears to be in the construction of a ship, an icebreaker, while some 1 or 2 small central stations are in process and 1 very large plant is planned.

There has been no evidence that they are prepared or intend to use civilian nuclear power as an instrument of their foreign policy.

In light of this, the conclusion that I would come to with respect to our own program, as indicated by the Soviet results, would be that we had better tend to our own business, so to speak, in the nuclear energy field. We should press on with the broad experimental development that appears to be in the best interests of our longer term domestic needs, as they have been described here, and at the same time concentrate on and give special consideration to the urgent electric energy needs of Western Europe and Japan.

I would come to the conclusion that immediately, as far as civilian nuclear power is concerned, the Soviet development program should have no direct influence on our program development or the scale of our expenditures. Military applications of course are quite a different matter.

Representative MILLS. Do you have any further question?

Mr. ECKSTEIN. Not at this time.

Representative MILLS. Professor Glaeser, do you have some question with regard to the other statements?

Mr. GLAESER. This is a matter of, probably, personal interest rather than of general interest. Is there any possibility of expanding the use of nuclear energy in such a way that we can generate electricity in such quantities as to convert our railroads from the use of liquid fuel back to the old-fashioned electrical energy?

I know that in certain locations in the West, when hydropower was plentiful, we did have electrification, and I understood from some people out there that they are looking forward to the return of the use of electrical energy on these transcontinental sections, partly because of the increase in the cost of fuel and, second, because it is expensive to maintain these diesel locomotives.

Representative MILLS. Dr. Mayer?

Mr. MAYER. I will attempt to respond to Professor Glaeser's comment. I think the answer is "Yes, we can generate nuclear power in sufficient amounts to electrify our railroads," and thereby "save" our liquid fuel. This is technically feasible. However, it would be much cheaper if we took the liquid fuels and fed them into a conventional power-generating plant to generate electricity, if we wanted to electrify our railroads, and a still cheaper alternative is to keep putting it into diesel motors and run the diesel trains as the railroads are now using them.

So, really, it is technically possible, but it is economically unattractive at this time.

I hope I have answered the question.

Representative MILLS. Mr. Teitelbaum?

Mr. TEITELBAUM. If I may, I would like to add one note on this. In a study in 1950, at the Cowles Commission in Chicago, Sam Schurr and Jacob Marschak looked into the problem of locomotives, based on electric power from nuclear energy.

The conclusion was that only on a few lines was the traffic density great enough to give a load factor, if you want to call it that, high enough to drive the cost of powering the locomotives down low enough. It turns out that these lines are the ones that carry a lot of coal. If coal were displaced, then the traffic density would fall below the critical point.

On a cost basis, nuclear power would have to be very low to make this attractive.

Representative MILLS. Have you a further question, Professor Glaeser?

Mr. GLAESER. I don't know whether this connects up with it or not, but if the utilization of nuclear power is so far in the future, so that the industry is hardly an infant industry, why should it be subsidized to such an inordinate extent? Wouldn't it be sufficient to subsidize the development of reactors without extending it to the electric-utility industry, where perhaps 80 percent of the expenditure is the normal in-course expenditure for production, transmission, and distribution?

Mr. MAYER. I think the ball drops back to me at this point.

Representative MILLS. Do you wish to respond to Professor Glaeser?

Mr. MAYER. Yes. I think, as I tried to point out in my paper, it would be very, very hard to justify in economic terms the subsidy of nuclear energy for the purpose of conserving our valuable fossil fuels. I believe I prefaced each one of my remarks with a statement to the effect that if it is our goal and objective to foster the development of atomic energy as stated or implied by the Atomic Energy Act of 1954, if we are to foster the development of the industry, I don't think we can rely on economic forces alone at this time. If that is our goal, then we must subsidize, not only to foster its growth but even to have it survive at this stage.

Representative MILLS. Have you a further question, Professor Glaeser?

Mr. GLAESER. No.

Representative MILLS. Professor Hines, do you have a question?

Mr. HINES. I have no questions, sir.

Representative MILLS. Dr. Mayer, you have answered several questions, but do you have a question with respect to any of the papers?

Mr. MAYER. No.

Representative MILLS. Mr. Teitelbaum?

Mr. TEITELBAUM. There is one point where Dr. Mayer's projections and mine may seem to be in disagreement. For sake of the brotherly love I would like to clear it up.

Dr. Mayer showed a small market for nuclear power. I don't recall whether he also specified nuclear energy in other uses in the United States in the next 15 to 20 or 25 years. My chart showed almost 10 percent of the energy supply being nuclear. I think the difficulty here, or the apparent difficulty, is difference in terminology. I am talking about a small share of a large market, an enormous market. Dr. Mayer is talking about a small market. I think his meaning was the same as mine.

Representative MILLS. Mr. Mullenbach, have you any questions on the other papers?

Mr. MULLENBACH. I would like to change the direction of the questions, and from the nuclear energy side ask the participants who talked about water resources what lessons the national policy in this area, water resources, might have to suggest for the current developmental phase that we are now in in nuclear energy. Are there any parallels or pitfalls that they see that nuclear energy might well be appraised of?

Representative MILLS. Professor Eckstein?

Mr. ECKSTEIN. I think there are two kinds of lessons, at least, which you could get out of it. I think obviously the closest parallel is in the hydropower field.

First, it is clear that public agencies are capable of scoring genuine technological breakthroughs in the power field. The Tennessee Valley Authority made genuine engineering advances of which only it was capable because of its size. These advances have been taken up by other power systems. On the other hand, the other lesson is that you have to make sure that you don't set up a self-generating process whereby one subsidy breeds another subsidy, so that you have an infant industry which, as in the classical case, never grows up, with the Government perennially, subsidizing nuclear power.

Representative MILLS. Do you have any addition to Professor Eckstein's statement, Professor Glaeser?

Mr. GLAESER. I think I would go along with that. In anything that involves subsidy, the closer you can get that agency to where it has to market its product and live, so to speak, on its own fat, the sooner you can get the information and the statistics and the experience which will tell you whether you have been climbing up the wrong tree or not.

From that point of view, it might be more germane, as we suggested, if we direct that subsidy to Western Europe where the total energy situation is such where nuclear energy is much closer to achieving marketability, as contrasted with us. Ours would be largely experimental and not probative.

Representative MILLS. Mr. Mullenbach?

Mr. MULLENBACH. I think perhaps a little confusion has crept in here. In my paper I was not proposing that we subsidize Western Europe in the development of nuclear power, although I think the last sentence of Dr. Mayer's prepared paper suggests that American manufacturers should be subsidized in entering this market.

I would disagree with this on policy grounds. First, I think the main reason for our helping to develop nuclear energy in Western Europe is, of course, the one quickly strengthening Western Europe's energy position. The second portion of it, which I think is very important, is that our investment costs; that is, the United States cost of building demonstration plants in Western Europe, would probably be a great deal less than they are here. It could be expected, I believe, that some of the costs, perhaps a very substantial portion of them, would be covered by the Euratom countries themselves. I do not believe, therefore, that subsidizing United States manufacturers in Western Europe is necessary.

Representative MILLS. Mr. Mullenbach, let me ask this question of you. Is it important, as we proceed in the development of nuclear energy for these purposes, that we consider the development of any method that will ultimately bring about the withdrawal by Government in this field?

I wonder if there were any lessons that we have learned with respect to the development of water resources that would indicate any need by Government, or for Government, to withdraw finally at some point with respect to the nuclear program.

Mr. MULLENBACH. I would merely remark that at this time it is too early to judge when that might be. But I think it is recognized by the policy AEC is now following, plus the intention of the Atomic Energy

Act of 1954, that the Government will not forever be in the business of developing nuclear energy except for military purposes and basic research. But with respect to the civilian technology, I think the intention is that at some period the Government would withdraw from this field. But this does not answer your question.

Representative MILLS. Is there any criteria at the moment in existing law for determining how and when the Government will withdraw from the civilian phases of this development? Is it important on the basis of our previous experience with respect to the development of water resources that in initiation of this type of program, that we have some such criteria for phasing out?

Professor Eckstein, is that one of the things we have learned about the development of water resource that we might call attention to in the development of civilian uses of nuclear energy?

Mr. ECKSTEIN. We certainly could. In the water programs, there are some programs where the Government cannot phase out, such as flood control. There are others, such as power, where there really isn't any reason why private industry couldn't do it. There are no developmental problems. It is a marketable product. In the case of nuclear energy, perhaps the development is not something which private industry can, through the profit motive alone, be encouraged to do, but once the technology exists, there is no reason why the Federal Government should continue to pour money into it.

Representative MILLS. Professor Glaeser, do you have something to say on this point?

Mr. GLAESER. The Achilles heel of the water resource utilization problem is in navigation. I have always felt that. Navigation by water is not able to do the complete job. Perhaps rail transportation isn't able to do the complete job, either. Yet both of these methods of providing transportation have developed more or less independently.

To make the long story short, they have been cutting each other's throats. That has been the history of transportation, more or less, ever since the Civil War. Any attempt to organize the transportation industry along rational lines has always met with some kind of opposition. It might have been the opposition of vested interests, or it might have been something else. Sometimes it is pure politics.

I well recall in 1920 when Senator Cummings, then Chairman of the Interstate Commerce Commission, did his dead-level best to introduce consolidation of the railroads. He preached that gospel in and out of the Congress. It was a peculiarly favorable time because the security-holders had gotten a premonition of what was coming, and they were in there as an interest to see that when the roads were returned to private ownership, they would be returned under the proper conditions. Yet all that Cummings could accomplish was voluntary consolidation which some of the roads that are now wishing they could consolidate did their best to sabotage. They got Professor Ripley, from Harvard, to work out an ideal plan. The Interstate Commerce Commission accepted it, but it couldn't be done voluntarily. Matters got worse because a third agency of transportation, the highways, appeared, and it took an awfully long time before they, in turn, were subjected to something like regulation.

So there we were, as far as our transportation job is concerned. They all went off under their own recognizance. That is true of the navigation problem. That is where it ties in with our water resources.

It seems to me that if Congress wants to do something to rationalize the development of our water resources, that is the weak end from which to start to see whether through a system of tolls and through a system of consolidation of different kinds of carriers we may be able to not only produce a more effective transportation machine, but economize our expenditures all along the line. I know that that is one thing that is worrying those of us in Wisconsin who are concerned with the problem of making use of the seaway, the injury that has been done and will be done to the trunkline railroads, and how we can coordinate the roads that run west from the Great Lakes with this new developing waterway.

Representative MILLS. Does any panelist desire to make a statement at this point?

Mr. MAYER. I would like to make one statement. Perhaps I was not very clear in my presentation. I do want to make clear, however, that I am not proposing in my oral presentation or in my written presentation, that we subsidize the United States nuclear "industry" in any form. I am simply saying that if we really have as our goal and objective, the fostering, the growth, and the development of the industry, then we must subsidize it.

I am not saying that that ought to be our goal. I am saying if that is our goal.

Secondly, of course, I am not proposing that we subsidize European energy development in any form. I merely say that if it is our policy that we do want to support, we want to foster the growth of nuclear energy, then we must subsidize. If we do choose to subsidize, our subsidizing will be less if we subsidize in Europe rather than in the United States.

Representative MILLS. Thinking in terms of sufficient resource use, what conclusion should we reach about present natural-resource programs on the basis of the efficiency criteria with which you dealt in your papers?

Can we say on the whole that our current Federal-expenditure program for natural-resource development is contributing to or deterring economic growth?

Mr. ECKSTEIN. Of course the program is composed of projects, and they are not all the same. But looking at the program as a whole, I think from a strictly efficiency point of view a very substantial fraction of projects reduce our economic growth rather than encourage it.

The reason for it is that it takes capital to build these projects. They are not cheap by any means. In a more or less full-employment situation, this capital would be doing something else.

The rate of return which about half of these projects yield is on the order of 1 to 1½ to 2 percent. Ours is not a 2-percent economy. It is a 6- to 10- to 15-percent economy.

Representative MILLS. Let me ask you this question—

What assurance do we have outside of the theory we find in economics, what assurance do we have that if certain resources are not used by government, that the release of them by government will mean their immediate use in the private sector?

Mr. ECKSTEIN. When I speak of resources, I don't necessarily mean the water flowing down some stream would go to sea without generating some advantage to somebody.

Representative MILLS. That is the creation of the resources, though, isn't it, when we do utilize it?

Mr. ECKSTEIN. Yes. The country is full of resources, minerals, labor, capital. When we speak of full utilization of resources, we don't mean that every drop of water should be used. We mean that every employable worker should be employed, and perhaps all the savings be successfully channeled into some productive use. They might be developing something else besides water.

Representative MILLS. I understand you to mean that if we don't spend the money for purpose A, that money may be used by government for purpose B, or in the private sector for purpose C, and that our resources will be used fully in that way.

But as a practical matter, do we ever have any assurance that if we release resources back to the private sector, that they can be fully used?

Does our history indicate that they will be fully used?

Every time it looks like we cut back in our defense program at all, we immediately begin to observe signs of growing unemployment.

Mr. ECKSTEIN. I am assuming here that we can continue to be as successful as we have been in our fiscal policy—that doesn't mean that we have hit it on the button every quarter since the war, but we have kept unemployment to very moderate amounts—that if we do cut back these programs, something else will take up the slack.

At the moment, the thing that will take up the slack, of course, will be other Government expenditures for additional defense outlays.

Representative MILLS. Professor Glaeser, what comment do you have on my original question?

Mr. GLAESER. I don't know how we could coordinate these varying uses to which money saved the taxpayers could be put. It is a question of economic and political pressure.

Each of these regions have their requirements. The answer, as far as I can see it, is that Congress simply, through some centralized source of study of these problems, can derive some sort of an answer. That is, in the instant case. But the best guaranty that we have that these moneys will be put to good use is to have some comprehensive planning in these various regions.

Representative MILLS. Before you end your answer, do you feel that our present expenditure program for natural-resource development is contributing to or deterring economic growth at the moment?

Mr. GLAESER. I think it has. Taken by and large, I think it has.

Representative MILLS. Contributed to economic growth?

Mr. GLAESER. Contributed to economic growth, and also to stability. And referring particularly to the Tennessee Valley Authority, I think I notice a decision there not to spend the money unnecessarily, to find the limits of economic expenditure in connection with their water resources, shifting the burden, if possible, to local units, where it doesn't tie in with their overall program; also their disposition to want to put that agency on a self-supporting basis, even to the point of paying Federal taxes, issuing their own securities so it will not be a matter of increasing the Federal debt.

In other words, regularizing their operations as a utility. As soon as they do that, the responsibility is theirs to see to it that the expenditures are economical.

I think that is the only answer I can give you.

Representative MILLS. Professor Hines, have you a comment to make on my question?

Mr. HINES. I should like to make 1 or 2 comments. One is an observation on Mr. Eckstein's comment, and the other, possibly, an answer that I think might be given to the question you raise.

In the first place, with respect to the question of the magnitude of economic growth, I think that from the cyclical standpoint Federal expenditures have increased the gross economic activity in the economy.

During full employment, however, I would be much more hesitant in contending that Federal expenditures produced an improvement in the quality of economic activity, particularly with respect to some types of resource allocation and some types of resource expenditures.

On the other hand, however, I think that Professor Eckstein has proposed a superficial criterion to determine whether resource allocation and economic product have been increased or not and ignores some important factors. That is, by saying that the investment return from Federal expenditures is not equivalent or even near that which could be obtained by putting resources to use in a private market really, I believe, begs the question.

If we are concerned simply with increasing the amount of return on investment, one of the best ways to achieve it, of course, would be to remove Harvard University from the continent, to burn down the churches, the art galleries, and the other commercially nonproductive economic investments in our economy.

So I think you have to have a criterion that is something other than a crass and unquestioning acceptance of the private market direction of your resources.

Representative MILLS. You were not making that statement about Harvard as a professor from Dartmouth, were you?

Mr. HINES. Well, we have met them on a number of fields. The only place we seem to excel is in football.

Mr. ECKSTEIN. Could I defend myself?

Representative MILLS. I will come back to you, since your name was mentioned.

Mr. ECKSTEIN. Well, of course, man does not live by bread alone, and there are, clearly, some objectives of the water-resource program which are beyond economic quantification. For example, the recreation benefits of reservoirs are hard to measure. But it would be my view that if you take the typical example, a project is a piece of economic capital. While it may be highly photogenic, there really are lots of other investments which are fairly attractive also, such as the modern office buildings. The intangible benefits, as we call them, I think have to be proven in every case. For the run-of-the-mill project, I think that they should be valued very, very little.

So what I would argue, really, is that the economic calculus gets you a very long part of the way in evaluating projects. This is a judgment about the significance of these intangible considerations, but it is the judgment I would make.

Representative MILLS. Dr. Mayer, you may return to the discussion of my question, if you wish. I do not mean that it has not been the foremost, but I engaged these two professors in a controversy between Dartmouth and Harvard. Now I would like to get back to the question.

MR. MAYER. I would like to perhaps restrict myself even to a sector of resources, to energy, where I feel a little more at home. I would also like to restrict myself to viewing this question, perhaps more narrowly, in economic terms.

As my answer to your question of whether the Federal expenditure policy has stimulated economic growth, I think the answer would be "Yes." Sometimes questions arise in my mind as to the quality of this growth, and questions arise in my mind as to whether we have made a conscious attempt to allocate the expenditures, even within the energy sector, let alone other sectors, so that we can get, to use Professor Eckstein's terminology, a maximum return on our investment in energy.

So I would say that we are stimulating growth, but I wonder if the return on our investment is as high as it might be with a little different allocation.

Representative MILLS. Mr. Teitelbaum?

MR. TEITELBAUM. I would like to add to that with regard to energy generally. In my paper, and in my summary, I made reference to the need for an overall energy policy. I think this bears on the question at issue here. At present, the United States follows many energy policies, one for each energy and in many cases a number of them for each energy.

One in particular is an import-restriction policy on petroleum products from Venezuela. The net effect of this is to raise the price of petroleum, particularly residual fuel oil, to American consumers. This raises the cost to the American taxpayer, the American consumer, of so many million dollars a year. I have not attempted to estimate how much.

An alternative allocation of these same resources that the American public pays in order to support this policy might be research in energy production or consumption or distribution. In particular, I am referring to such things as our oil-shale deposits in the West. It is estimated that gasoline and other petroleum products could be produced from these oil shales anywhere from zero to 10 or 15 percent above the price of comparable products from petroleum.

I just wonder, in view of the relatively small research expenditures that the Bureau of Mines has been permitted to make in these areas, if some small share of the extra resources that it is costing the American public to support this oil-restriction program, if they were not channeled into research in oil-shale development, whether we might not in the long run be far better off.

Representative BOLLING. Mr. Mullenbach, do you have the answer to the question I raised initially?

MR. MULLENBACH. I have no comment.

Representative BOLLING. I wonder if the public interest is better served by what may be termed a pattern. This is similar to the situation in the oil shale, although it has not been permitted to go forward, and in various other processes that I understand prevail that might end up with a result of production of gasoline or fuel of some sort from other processes—coal, I believe it is.

How is the public interest protected in the situation where the public pays, No. 1, for the development process, and, No. 2, the process

is exploited for private profit without, necessarily, any yardstick—yardstick technique—as has been the situation between public and private electric power, for example?

How is the public interest protected in a situation like that?

Mr. MULLENBACH. I think the simplest explanation is this: Where the research and development work has been accomplished with public funds, it is good public policy to see to it that when that technology is transferred into private hands, you have the powerful stimulus and guardian of effective competition working to protect the public interest. This should bring about production of commodities or services that are at as low cost as such competition can provide.

Representative BOLLING. What I am curious about is, Does this as a straight economic matter work out to be highly competitive?

What amount of competition would you have to have in the future for nuclear power in relation to more conventional fuels to get a compensatory return in the public interest?

All the conversation so far has been that it is going to be a very long time before nuclear power will be competitive. How is it going to have a competitive effect for a very long, long time on oil, petroleum, gas and coal?

Mr. MULLENBACH. Well, I would say, just to start in answering this question, that the imminence of nuclear power has already influenced to some extent the price policies of the firms that are engaged in the production and distribution of the conventional fuels. While the prospect of competitive nuclear power appears to be distant, it is, nevertheless, something that is foreseeable within the next decade or so.

As to competition, I believe the predominant competition that will be important will be among the manufacturers of reactor equipment. Here the competition between sellers will work in the direction of driving costs down, of permitting public utilities, both private and publicly owned, to procure equipment that is competitive, ultimately, with what they would get in the way of conventional equipment. But as between the utilities themselves, of course, there is no direct competition. The principal competition there would be that of the stimulus, if you wish, of the generally competitive character of private and public power.

Representative BOLLING. Does anyone else wish to comment on it?

Mr. GLAESER. I could add this: So far as these developmental expenditures have come before the commissions, they have rather charitably permitted them to be included in the expense accounts, as we say, above the line. A certain amount of the cost is absorbed then by the rate payers. But not all jurisdictions have ruled on that question because it has not come up everywhere.

In those places where it has come up, they have put rather stringent limits on how much they will accept as being a proper charge against the rate payers. That, however, does not affect your question so far as it relates to governmental expenditures. I am talking about these expenditures that the private utilities make in association with public expenditures. That is as far as they have gone.

Representative BOLLING. Of course, it wasn't too long ago when the situation was very much simpler, presumably, if I understand his theory. The public would either pay through taxes or through grants for the cost of development. Perhaps the question is not too impor-

tant. It seems to me, of course, that what we are lacking in the discussion at this phase, if I have read history properly, is that power has led itself to situations that have arisen out of the lack of competition, not technical competition, and under those circumstances, at least historically in the area that I grew up in, the Tennessee Valley area, competition did not lead to increase in unit volume and decrease in price, it led, being limited competition, to high interest price and a relatively low-unit volume.

It seems to me that in the development of nuclear power, a very considerable amount of consideration has to be given to that problem. I hope I have made myself clear.

Mr. GLAESER. Did you ask me a question?

Representative BOLLING. Yes.

Mr. GLAESER. I am afraid I didn't get your question.

Representative BOLLING. My question wasn't a question. It was a comment, at least, on my reading of history. My impression is that in the area that I grew up— I don't happen to represent it now, I grew up in the Tennessee Valley area, but I now represent part of Missouri— my fairly recent memory is that there was not competition between the power resources there, as there was, in effect, a monopoly, and this monopoly made its profits, very satisfactory profits, based on a quite low volume of production and a very high-unit cost, and that only when the time came that there was some sort of yardstick procedure in the area, and the TVA area was more than a yardstick, but it was a takeover of much of the area, did competition effectively give to the public some protection of their interest.

The thing that concerns me most about the future of nuclear power is that we do not, through an inadvertence or a lack of understanding, move ourselves to the situation where many years from now, not 25 or 50 but probably 100, being an optimist, nuclear power is a dominant portion of the total-power production.

The question is how the public interest then is protected.

Mr. GLAESER. The competition you are referring to there is not the so-called yardstick competition. I think it is true that in the pre-TVA situation, the utility industry in the valley States was not known for the effectiveness in regulation. The southern commissions were notoriously weak commissions. One of the reasons, of course, for the establishment of public agencies in different sections of the country was to provide some standard of comparison. That may not always have been a fair standard, because situations differ.

I couldn't conceive of a power agency that would compare, let's say, the production of electricity by steam with the production of electricity by hydro, and with the production of electricity by nuclear means or other means. What they do is they bring them all together into one pot. The competition then has to be by means of a standard of comparison. The influence of example, you might say, with some added pressure being brought by the commissions who can use these standards of comparison effectively in enforcing a program of regulation.

To that end I would say that it is highly important that somewhere along the line agencies like the TVA, and let's say Bonneville Power Administration, and others, be drawn into the charmed circle of those who can work with private enterprise in developing this new form of energy.

That is all I can say.

Representative BOLLING. What I am basically getting at is this: I have not heard anything here or anywhere else that convinces me that the public, through its tax policy, before it is over, spending \$15 or \$20 billion in the development of nuclear energy, that it would then be wise in the public interest for the public, operating through its Government, to totally get out of the production field.

What I would envisage, if things go as they are going now, would be a time when the public would be dependent on commissions, and again I am not an expert in the field. The only State commission that I know of which, over a long period of time, has been notoriously effective in this field, I believe, is the one in your State of Wisconsin, a really strong regulatory commission that has stayed strong and which has been strong for a long time. State commissions are notoriously weak, I believe, not just in the South but generally.

The problem seems to be, in atomic energy, that must be faced, is that we do not want complete phase-out from the operations after the developmental stage.

Representative MILLS. Dr. Mayer would like to engage you in this conversation.

Mr. MAYER. I would like to comment on the statement by Mr. Bolling, if I might.

I think if I might say so, sir, that the problem, whether it existed in Tennessee or it didn't exist, or however we term the problem that you have in mind, I think is characteristic of power, is characteristic of the kilowatt-hour. It is not characteristic of atomic power. I would say that the analogy here is that "monopoly," or whatever you have, is tied to the word "power." "Atomic power" is tied to the words "hydroelectric generation," one kind of a "boiler" rather than another kind of a boiler. In other words, it is tied more to the word "equipment." Certainly I don't think that any of us would question very seriously that there is very stiff competition within the public-power field or within the private power field among the various suppliers, among the various types of equipment, that vie for the sale.

In other words, atomic-energy equipment must compete with other kinds of boilers, atomic energy with other kinds of fuels, and this competition is very, very rough, very keen, whether it be within public power or within private power sector.

I don't think that we really have a worry there. I think we have good justification for looking for a phasing out of Government control over one type of equipment. It is just as I think most of us would agree that we shouldn't have any Government control over the kind of boiler that is installed, or what have you. It is much more analogous to the equipment side rather than the power side.

Representative BOLLING. I can certainly see the competition in technology, but I do not see where they will protect the public interest as to rates.

Mr. MAYER. But I think the rate problem is one associated with power. It is part of the total power problem. I don't think whether or not atomic energy enters the market or doesn't enter the market will in any way affect the general problem of how to fix power rates equitably.

Representative BOLLING. Of course, the reason I raised the point is that we are at a very different stage in this particular source of power

than we perhaps ever have been in relation to any other source of power. This is a source of power that is being and has been developed by overwhelmingly large Government subsidies at the Federal level.

The question one must be concerned with, in this particular type of resource development, is how, when the whole progression of events has taken place, the public interest is still protected. I have not heard anything that anybody has gone further than my vague thinking on it.

Mr. ECKSTEIN. I think it is clear that so far the regulation of power generated by nuclear methods is concerned, it will not be any better or any worse than any other regulation. But I think there is a related problem. Since the equipment is developed largely with Government money, do we have any assurance that there will be, in fact, competition when it is turned over to private enterprise?

Will the technical know-how now being built up be generally diffused through industry, or will a few favored contractors have such a tremendous jump on the equipment market through the public beneficence?

Mr. MULLENBACH. May I comment on Mr. Bolling's remarks?

It seems to me that the Atomic Energy Act at the moment provides some assurance or hope, at least, that the public interest will be protected in this longer period. First, the act itself is designed to establish and maintain a licensing system which will protect the public interest for the reasons of health and safety and national security. This regulation is certain to be necessary almost indefinitely, I should think.

The second aspect of the act that I think is of some importance for the public interest is that it is possible for the major utilities that are Government-owned, that is to say, TVA and Bonneville, and so on, to meet their expanding energy needs, whenever it appears economic, through the use of nuclear power. This may be in the rather distant future, because both of these systems are in very low cost power producing areas.

But nevertheless the act does permit these agencies to move into nuclear power when it appears to be appropriate.

Representative BOLLING. That is most pertinent to the very significant question raised by Dr. Eckstein. If you didn't hear it, I would like him to repeat it.

Mr. ECKSTEIN. My question was whether there was any assurance that the know-how which is being developed by public money will, in fact, be made broadly available to many companies or whether it will really accrue to those who now have the development contracts.

Representative BOLLING. And that would be in relation to the second point which you made, because if, for various good, current, economic reasons, either Bonneville, TVA, or any other public body, had not been in the early developmental stages, then by the time they were interested, they would be completely, let's say, at the mercy of those who had been interested.

I think this is very fundamental or I would not be pursuing it.

Mr. MULLENBACH. The Atomic Energy Act protects the public interest through patent provisions, as you know. The act sees to it that there is competition among the companies doing the research work in

this field, and that monopolies through the patent device cannot arise.

I would say, therefore, that while it perhaps would be better for the public agencies, such as Bonneville Power and TVA, to be in on the early developmental phase, and they are not, I think there is some protection of the public interest through the present provisions of the act that relate to patents and antitrust.

Mr. TEITELBAUM. If I may, I would like to slay one dragon, and that is the size of the public investment in nuclear energy. The figure that is quoted and which has been quoted is \$15 billion. This is not the public expenditure for nuclear power, as such, for peaceful uses. It is the total outlay on nuclear energy, and practically all of it is an insurance policy against annihilation by the Soviet Union. So the proportion of this \$15 billion that went to peaceful uses is small.

It might be inferred from Mr. Mullenbach's paper, although I have not attempted to estimate it, I am certain that it is far less than \$1 billion.

Representative BOLLING. It is obvious that if there had not been military development, we would not be talking about peaceful development.

Mr. TEITELBAUM. This is largely a byproduct, so we are getting it for free now. There are no extra costs attached. If there hadn't been a byproduct, we still would have spent the \$15 billion.

Representative BOLLING. I think that is obvious, but I don't think it changes the point, that the byproduct is the result of an investment for another purpose. That is all, Mr. Chairman.

Representative MILLS. At several points in discussion with previous panels, I raised the possibility that we may have to increase defense outlays over the next several years very substantially. These increases, of course, will raise the question of financing. Perhaps real growth in the economy will take care of some of the addition, through providing additional revenues under existing tax rates to meet these outlays, without the necessity of resorting to deficit financing, which I think we will all agree, might, in time of high employment, have some inflationary effect.

Perhaps, however, if we are, as a matter of fact, to avoid an expansion of our debt, we will have to cut back some of the public-spending programs or else increase taxes. Some, at least, in my opinion, of this increase, if it comes in defense outlays, should be compensated by reductions in other public-spending programs. The question in my mind is whether or not there exists in our current natural resource development program, some room for reduction without seriously impairing economic growth. I am not unmindful of what the President said in Oklahoma City, that as these defense outlays go up, it is necessary for us to cut back in some of our so-called nondefense spending. I wonder if you gentlemen feel that this is an area where some cutback can be made without impairing economic growth. You have already said, I think, that you thought some cutbacks could occur.

Mr. ECKSTEIN. Could I add a word to that?

Representative MILLS. Yes.

Mr. ECKSTEIN. In a public work field, such as water resources, most of the money usually goes for projects under construction, so the only leverage you have is on new starts, and perhaps a little bit on how fast you are trying to build the ones under construction. So there can't be any very sudden, large cutback without seriously dis-

rupting the progress of the program. But on the new starts, it seems to me that the crisis on the defense side is sufficiently acute, that there should be a modified policy of no new starts, that is, that only those projects be started for which there is a very extraordinary need. An acute local flood-control problem might be such a case. But short of these real public necessities, I would favor no new starts.

Representative MILLS. Professor Glaeser?

Mr. GLAESER. In general, I would agree with what was said, but I would like to add that some of these new starts could be shifted, in the case of the TVA, by recognizing its utility status, and authorizing it, under a revenue bond setup, to make the necessary additions to its plant. I think the same could be done under the partnership plan in the Columbia Basin.

So far as the Colorado is concerned, of course, southern California is very much concerned about its water supply. It is not likely to ask for any more expenditures from the Federal Government for this purpose. But since the need is very great, they are willing to go to all lengths to bring Feather River water down into the southern part of the State. That wouldn't enhance the expenditures of the Federal Government. So wherever these activities of a public utility nature have become stabilized, it would be possible to stop appropriating money for new starts and let them do it on their own. The revenues should be sufficient to cover these costs.

Representative MILLS. Professor Hines.

Mr. HINES. I think there are a couple of observations that can be made here. One might be to mention another paragraph of President Eisenhower's speech, where he said, in effect, that the American public would not be sacrificed on the altar of the unbalanced budget. I think the question is how large and how important are the expenditures for natural resources. If you check through the figures of past budgets, you will find, I think, that natural-resources expenditures have been pretty inconsequential.

In 1958, the estimate is about 3 percent, less than \$1 billion for resource-development expenditures excluding agricultural outlays. I don't really know where you are going to get very much fat for the military in cutting from this category.

Also, if you do, you raise the problem that you may cut them this year, but it is quite likely that in the future you will have to make up for the appropriation that you did not apply for the year in question.

A good illustration of this, again somewhat outside of the area of the market system, is found in the case of the national-park maintenance programs. Because the expenditures for national parks were cut very low during the war and postwar periods, you have a program called mission 66. These are the types of expenditures that have to be made if the function that is going to be served by the national parks is continued.

If you look over the categories of natural-resources expenditures, you will find some of them that may be in the nature of subsidies, such as the type of expenditure for the soil bank and so forth. These are hard to cut, not so much because of the economic justification of them in some instances, but because of the articulateness of the groups that sponsor them.

Other types of expenditures for the development of forest resources, water resources, conservation of fish and wildlife, and recreation use

of natural resources may be justified by the nature of the activity itself. It is a question not simply of cutting the expenditure, but whether you want to remove a particular function from the Federal Government's sphere of operations.

In terms of magnitude, I don't think there is much opportunity for economy here, and I think, in most cases, the expenditures are sufficiently important that they should be continued.

Mr. MAYER. I have no comment.

Mr. MULLENBACH. I have indicated that the scale of annual expenditures for the civilian development of nuclear power is on the order of \$175 million of public money. While this is increasing, I think it can be said that the amount of research and development on military aspects that you might secure from this sum would be rather small.

However, as a result of having looked at the atomic-energy budget within the last few days, in the course of preparing these remarks, I notice that there is one program, at least, that might deserve consideration. I am not suggesting that it be cut, but am suggesting that it be reexamined. It is the raw-materials program, in which the increase from fiscal 1957 to 1958 is from \$406 million to practically \$600 million—the largest single program of the AEC. This is an area in which reexamination of procurement objectives and so on might be desirable.

Representative MILLS. Are there any further observations?

Mr. ECKSTEIN. Could I add one more note of clarification? My remarks were not meant to apply to all activities in this field. I agree completely with Dr. Hines on the case of the Park Service and, of course, in the case of the Tennessee Valley Authority. Where there only is public power, the public agency has to meet the growing needs of the area to the same extent as private utilities do so elsewhere.

So, my remarks are only meant to apply to large water-resource projects, primarily of the navigation, flood-control, and irrigation type.

Mr. HINES. May I make one more statement?

Representative MILLS. Yes.

Mr. HINES. It seems to me that such a high percentage of the budget is now going into defense or military activity that the course of action that is available is either to shift the components within the military portion of the budget, or to increase the amount of revenue expenditure by increasing tax receipts or deficit spending. I don't see how you can cut very much more; that is, cut down nondefense expenditures in a way that will provide the amount of money necessary to carry on programs that, apparently, now have been made necessary by the missile race.

Representative MILLS. Is there any further statement? If not, we appreciate very much your participation in the submission of papers for the compendium, your appearance today, and the very interesting information you have brought to the subcommittee. Thank you very much.

The committee stands adjourned until 10 o'clock Monday morning in this room.

(Whereupon, at 3:45 p. m., the subcommittee recessed to reconvene at 10 a. m., Monday, November 25, 1957.)

FEDERAL EXPENDITURE POLICY FOR ECONOMIC GROWTH AND STABILITY

MONDAY, NOVEMBER 25, 1957

CONGRESS OF THE UNITED STATES,
SUBCOMMITTEE ON FISCAL POLICY OF THE
JOINT ECONOMIC COMMITTEE,
Washington, D. C.

The subcommittee met at 10 a. m., pursuant to recess, in the old Supreme Court chamber of the Capitol Building, Representative Wilbur D. Mills (chairman of the subcommittee) presiding.

Present: Representative Wilbur D. Mills; Representative Thomas B. Curtis.

Also present: John W. Lehman, acting executive director; Norman B. Ture, staff economist.

Representative MILLS. The subcommittee will please come to order.

Hearings of the Subcommittee on Fiscal Policy continue this morning, with an examination of Federal expenditure programs for regional development.

Work in the past—by other subcommittees of the Joint Economic Committee—and inquiries by the full committee, have suggested the impact of significant differences in the level of economic development among various regions of the country for the rate of overall economic progress.

Quite apart from considerations of economic growth, all of us have a humanitarian interest in seeing to it that all the people in this country have the opportunity to share in the fruits of an expanding productive capacity. None of us can deny the fact that the Nation's development has been characterized historically by unevenness.

The problem to which we address ourselves today is one of determining characteristics of any program in which the Federal Government might participate which would contribute to a more widespread distribution of the benefits of economic progress while being fully consonant with considerations of efficient allocation of our scarce resources.

Each panelist will be given 5 minutes in which to summarize his paper. We will proceed in the order in which the papers appear in the compendium, and we will hear from each panelist without interruption. Upon completion of the opening statements, the subcommittee will question the panelists for the balance of the session.

This part of the session in preceding panels has been informal and we hope it will be equally so this morning. All members of the panel should feel free to participate—commenting on papers presented by other panelists, on subcommittee members' questions, and raising questions of their own.

We will hear first from Prof. Walter Isard of the Wharton School of Finance, University of Pennsylvania.

**STATEMENT OF WALTER ISARD, PROFESSOR OF ECONOMICS,
UNIVERSITY OF PENNSYLVANIA**

MR. ISARD. The topic of this panel is very closely related to the subjects of other panels, namely to those on Federal expenditure for natural resource development, for economic growth, for urban redevelopment, for transportation, and for human resources. In the papers to be presented at these latter panels, much of the material relating to our topic will be discussed. I, therefore, will limit this paper to a presentation of two important aspects which are not likely to come under consideration in these other discussions.

**MODIFICATION OF FEDERAL EXPENDITURE PROGRAMS TO ACHIEVE
REGIONAL EQUITY**

When one considers the range of Federal programs designed actively to encourage and promote development of resources one is struck by the regional imbalances which result. Resources whose development logically require Federal participation are not evenly spread among the several regions of the United States. The eastern regions particularly have a low proportion of such resources; whereas the western regions have a high proportion. Thus, it is to be expected that a Federal policy geared to national growth and welfare will lead to an unequal distribution of Federal expenditures among the regions. But such a policy can be blind to important considerations. It can fail to recognize the fact that the health of the national economy in large part reflects the health of the several regions constituting the Nation. If from one region the Federal Government drains excessive financial resources for the support of projects in other regions so that the health of the first region is undermined, clearly this defeats the very purpose of the overall Federal policy. In fact, such policy can lead to large Federal expenditures on social security and other welfare programs in the region adversely affected. An excessive drain of financial resources from a region may interfere with that region's normal process of growth, may chase away industry which normally might develop in the region, may lead to urban deterioration within the region, may make tenuous the fiscal balance of the region, and may even lead to the emergence of depressed industries and areas within such a region. Clearly such consequences should be avoided. Clearly policy in Federal expenditure for national resource development, economic growth, transportation, and so forth, must take into account the regional dimension and must provide for a proper amount of "inequality" in taxation and expenditures among regions.

FEDERAL EXPENDITURES AND REGIONAL AND NATIONAL STABILITY

Starting with the premise that Federal expenditures to forestall recession and depression is desirable in general, one may inquire into the regional implications of such a policy. When one studies the historical record and notes the manner in which recessions and depressions spread, one clearly observes significant spatial aspects. It is true that regional cycles fairly closely resemble one another and the national cycle both as to timing, intensity, and duration. But clearly, national cycles tend to start at one or more sore spots within the national economy. Such sore spots have a definite geographic position. Such sore spots should be identified, and programs prepared to nip in the bud any spread of recession forces from these spots. This is not to deny that there are also industries whose growth is slow and which are very sensitive to recession. However, further investigation points up the fact that typically the sensitivity of such an industry differs among the several regions. For example, textiles in New England is much more sensitive to recession influences than textiles in the South. The coal-mining areas centering around Scranton, Pa., are much more sensitive to depression influences than the coal-mining areas in certain parts of the Ohio Valley. Therefore, if a prime purpose of Federal expenditure policy is to nip in the bud recession movements, and to forestall depression, then it would seem essential that this policy assume a regional orientation and be primed for attack upon particular areas of a nation which are sensitive to depression influences. Generally speaking desirable policy would go even farther. It would attempt to identify sore spots in the economy, and attempt in times such as these and through programs of diverse types to build up the cyclical resistance of such areas.

Thank you.

Representative MILLS. Thank you.

Our next panelist is Mr. Robert A. Kavesh, business economist, the Chase Manhattan Bank.

**STATEMENT OF DR. ROBERT A. KAVESH, BUSINESS ECONOMIST,
THE CHASE NATIONAL BANK**

Mr. KAVESH. The views I shall present are my own, and do not necessarily represent those of the Chase Manhattan Bank.

I should like to speak informally about certain problems of Federal expenditures for regional development.

First, I think perhaps the most significant point that we can make is that the data that pertain to regional expenditures (at least at the Federal level) are rather inadequate. It would be very easy to say that we should spend huge sums of money to bring these up to date, to get the best possible use out of them; but clearly, if we consider the fact that there is what might be called an inventory of needed data, I would not rank regional material very high on a list of priorities.

I would also say that when we talk about regional data we should also recognize that even if we were to get perfect information on direct outlays from the Federal to the various regional governments or agen-

cies, we would still have the problem of figuring out, analytically, the ultimate impact of these expenditures.

In several investigations which I have carried on, I have come to the tentative conclusion that the reaction paths (the ways in which the various regions would respond to these expenditures) would be quite different. Therefore, you would have a question of determining just what the ultimate impact of these expenditures would be.

I would also like to speak about some related policy questions. We really have two areas that should be considered here. The first is just how these expenditures work in terms of our federal form of government. In other words do they fit in with the general provisions of our Constitution?

I think the financial aspect is of considerable importance, but it is not the only one. One further point that I would like to make is this: Regional expenditures, if looked at historically, have been a consideration since the birth of our Republic. But I think most importantly, they received their greatest impetus during the period of the 1930's.

This was the time that the Nation was wracked by a depression; this was the time when I think various aid measures made a considerable amount of sense. Certainly in retrospect, the TVA was an eminently successful and well-conceived program.

But, in looking at the current economic scene, where many of the previous hearings have focused on the problems of inflation and the like, I think we must be very careful in talking about Federal expenditures for regional development.

In short, here we have a pool of funds for all possible uses. If we siphon some of these funds into the regions as part of Federal outlays, we are, in a sense, possibly detracting from other alternative uses of funds. In a time of national emergency, when the defense effort is paramount, I think these are considerations which must be borne in mind.

I think, also, the fact that if one looks at the data on regional incomes one finds that over the course of the last 30 or 40 years there has been a tremendous equalization of regional incomes.

We formerly used to talk about benefit principles of taxation and the like, where we would take from the wealthy and give to the needy. In this vein, if we break up the United States into regions and look at these incomes, we can certainly see that there has been a tendency to equalization; which I think is a testimony to the industrial growth of our Nation—which has, I think, encompassed fairly equally, all the regions of the United States.

I would like to close with just 1 or 2 aspects of what we might call countercyclical policy.

In the last 20 years we have made a great play about so-called countercyclical financing. That is, we run deficits during bad times, and we run surpluses during good times. On balance, we should have about a neutral budget. This is according to the theory.

In this particular approach, you find that the State and local governments are given a highly subsidiary role, mainly because of the feeling that their expenditures, their receipts and outlays, are not flexible enough, and that all the efforts should be geared at the Federal level.

I think if one looks at the changes that have taken place since World War II, the pattern that emerges is one which shows that the State and local governments are becoming more flexible in their outlay-receipt patterns. I refer to the recent action, for example, that the Governor of Connecticut took, in which he talked about a 10 percent cut in State outlays because of the flexibility of taxes bringing in less next year than had been anticipated.

If we look at these changes, I think we can find that the States and municipalities are taking more responsibility in handling their receipts and outlays in a way which fits in with these countercyclical policies. So, I think that the argument that everything should be centralized at the Federal level falls down in these respects.

I would prefer to close at this point and save some of my remarks for the panel discussion.

Representative MILLS. Thank you, Mr. Kavesh.

Our next panelist is Prof. Robert E. Kuenne, department of economics, Princeton University. You are recognized, Professor Kuenne.

STATEMENT OF ROBERT E. KUENNE, PROFESSOR, DEPARTMENT OF ECONOMICS, UNIVERSITY OF PRINCETON

Mr. KUENNE. Thank you. No testament of revelation concerning the mysteries of economic growth is yet in the hands of economists. More specifically for the matter at hand, we have only partial insights into the nature of the elements causing differential growth among economies. At the risk of abstracting from cultural factors, we may concentrate upon two groups of causal factors in the narrower economic sense which have relevance.

The first group reflects the existence of real cost differences in the spatial economy which are affected only in a secondary sense by the stage of development of the economy. Such factors as the existence of immobile resources, nearness to population centers, availability of access to natural transportation routes, and so forth, must register, in the long run, in cost structures.

To the extent that this is true, regional economic differences must be accepted as basic facts of life unless we are willing to interfere with economic criteria for the sake of achieving higher social goals.

This decision, if made, should reflect a conscious balancing of the priorities of these social goals and the economic cost of achieving them. We run the danger of regarding regional economic differences as lapses from the normal. I should like to stress that our proscriptions apply equally to so-called declining areas and to underdeveloped areas.

A second type of causal force leading to such regional differences springs from the economy's degree of maturity. Two similar economies can vary in levels of per capita income and rates of growth only because one of them had a head start in its development. It is in this field of forces that the Government policymaker has a legitimate economic ground for intervention.

By conscious redirection of spending programs to aid the less-mature region, even though higher present costs may be sustained, very real social good can accrue from his efforts.

Certain postwar developments in the regional distribution of manufacturing activity may be leveling off these economic differences

between regions. More research is called for in these areas to determine the nature of the forces afoot.

Lastly, if I may be allowed to address myself to a problem whose social priority may seem to override economic criteria, I should like to comment on the wisdom of dispersing our industry in the interests of national defense.

It is now quite clear that this can be accomplished only by subsidies and at the expense of more rational spatial cost structures. What is often forgotten, it seems to me, is that while it is theoretically possible to disperse such industries, a transportation network is inherently a system of channels with nodal points highly susceptible to destruction by thermonuclear weapons.

It seems to me futile to hope to escape the interdiction to movement in our economy implied by the use of such weapons on our Nation. "Broken-backed" war is as inconceivable with our transportation network annihilated as with our production facilities destroyed. On the other hand, for the purpose of limited war, to the extent that an artificially dispersed production pattern creates stresses and strains upon secondary transportation routes, we may suffer frequent transportation breakdowns.

Therefore, I feel that any extensive program with these goals should be studied very carefully indeed, as these goals do not seem to me to provide an exception to our analysis above. Thank you.

Representative MILLS. Our next panelist is Prof. Charles Tiebout.

STATEMENT OF CHARLES M. TIEBOUT, ASSISTANT PROFESSOR OF ECONOMICS, NORTHWESTERN UNIVERSITY

Mr. TIEBOUT. May I also take the liberty of reading a prepared statement, Mr. Chairman, and adding a note or two?

There is sufficient evidence to indicate wide regional variations in incomes, growth rates, and governmental expenditures. Hence, a basic consideration of my paper is that, in many cases, policies designed to promote economic growth and stability for the national economy may not be appropriate to specific geographic regions within the Nation.

Thus, it is worth while, at the regional level, to consider the same types of problems investigated at the national level. The three areas considered are: (1) The factors determining short-run regional income; (2) some of the relevant variables associated with regional long-run growth; and (3) some remarks on an optimal level of goods and service expenditures by State and local governments.

The discussion of each topic seeks to provide a framework by which policy measures may be judged. The points involved in discussing short-run regional income include:

1. It is possible to use the tools of analysis developed at the national level for the analysis of regional income.
2. Many analytical differences are merely differences of degree; for example, the larger role of exports at the regional level.
3. Regional multiplier studies can indicate the impact of short-run shocks upon a region.

Let me interject here, in reference to Mr. Kavesh's remarks, that when the Governor of the State of Connecticut seeks to cut governmental expenditures by 10 percent in view of a 10-percent decline in taxes, there is no necessary assurance that this will mean the budget is balanced, because the cut in Government expenditures by the State of Connecticut will reduce the receipt of taxes. This is the kind of study that will show whether or not this action will produce a balanced budget—a regional multiplier study.

4. In seeking to stabilize regional income, diversification of the industrial base need not be an aid.

By that, parenthetically, I mean communities which have said we have "too many eggs in one basket," "we need more industry," "more diversified industry," maybe making themselves worse off instead of better off in terms of economic stability.

Regional economic growth considers a longer time span. The following points are considered :

1. The difference between regional growth where population growth attracts industry and where industrial growth attracts population.

2. The difference between regional per capita income growth and regional population growth.

3. The factors behind regional income differences.

4. The dependence on intraregional cost conditions of the ability of a region to compete in the export market. Some writers have tended to emphasize exports as a condition without noting this further point.

Mr. Kuenne's remarks were relevant to this point.

In considering government expenditures at all levels of government, it is pedagogically useful to disregard the stabilizing and distributive effects—see the paper of Richard Musgrave given before this committee entitled "Principles of Budget Management."

Then attention focuses on the optimal level of public goods and services provided when viewed as satisfying public wants. At the national level there is an impasse in achieving an optimum in that no market type of mechanism exists to indicate consumers' preferences.

At the State, and especially local level :

1. Various governmental units do not supply the same type and level of services from region (community) to region (community).

2. Consumers may indicate their preferences by moving to places where expenditures and taxes best satisfy their preferences.

3. The ability to satisfy all preferences is the characteristic of some public goods. However, some are the opposite of sumptuary taxes and are sumptuarily imposed ; for example, public schools.

4. Which goods shall be subject to free choice and what levels of government shall do the choosing involves the interrelated issues of equity and federalism.

Representative MILLS. Thank you.

Mr. Karesh spoke extemporaneously and would presumably like to have his short, prepared statement in the record. If so, it will be included.

(The statement follows:)

STATEMENT OF DR. ROBERT A. KAVESH, BUSINESS ECONOMIST, THE CHASE MANHATTAN BANK, PREPARED FOR DELIVERY BEFORE THE SUBCOMMITTEE ON FISCAL POLICY OF THE JOINT ECONOMIC COMMITTEE OF THE CONGRESS OF THE UNITED STATES

In assessing the role and impact of Federal expenditures for regional development there are really two major phases of the problem that should be treated. First, there is the administrative or political aspect; i. e., Do these programs conflict with the essential characteristics of our "federal" form of government? Does the spending run counter to the provisions of the Constitution? Secondly, the actual financing and economic effects of these outlays on the several regions are involved. In these remarks I shall concern myself with aspects of the latter problem.

At the outset it should be clearly understood that the data pertaining to Federal expenditures for regional development are analytically inadequate—mainly because they fail to account for the indirect or secondary effects of both the revenue and expenditure aspects of the question.

We know, for example, that when a housing development is constructed, many shops selling food, clothing, services somehow spring up. These ancillary industries and enterprises and the further economic responses to them might be termed the secondary effects. In short, a certain multiplier will stem from a given fixed expenditure level, and the measurement of this factor is of unquestionable importance in determining the total economic impact. Nor, incidentally, can we assume that the reaction path of each region will be precisely that of every other region.

Unfortunately, however, the considerable costs involved in obtaining such data have prevented this sort of statistical undertaking from being carried out. In theory, an adaptation of the Leontief input-output model would seem to offer a direct approach.

RELATED PROBLEMS OF REGIONAL DEVELOPMENT

A major question that arises in connection with regional development is the source of financing. On one side are the advocates of decentralization who urge that the Federal Government curtail many of its programs of regional and/or State aid, remitting, at the same time, certain taxes so that work could be done without an added financial burden on the local source. Others claim that this process of decentralization would merely result in inactivity by the States, that the setting up of regional agreements would be all but impossible, and that the fiscal flexibility of the States is more narrowly restricted than that of the Federal Government.

It is difficult to analyze this matter with complete objectivity. Purely political considerations mingle with those of an economic nature and, in certain respects, transcend them. But 1 or 2 points might be fairly made. First, there seems to be a growing awareness on the part of the American public that Federal aid, whether in the form of a major river-basin project or as grants-in-aid, is not free to the recipients. This may seem perfectly obvious, but the general impression that Federal programs are, in total, net additions to regional or State income and that the corresponding financing might not be partially or more than an offset is a belief that many people still hold, although the number of uninformed seems to be declining. A good deal of publicity has been directed to this problem, with the result that a more questioning attitude has developed in many quarters.

Tendencies toward equalization of regional income

Associated with this question has been a striking change in certain key statistics, which further bear on the problem of selective regional aid. The figures of the Department of Commerce on personal income by State and region have demonstrated a definite tendency to average out more evenly in recent years. This puts a somewhat different perspective on Federal aid for regional development. If one of the main tenets of the principle of Federal assistance was the notion that funds were siphoned from the wealthier regions and disbursed to the needier (and this crops up in many evaluations), then this form of justification would seem to apply in lesser degree today. Just how and why this greater equalization of incomes was accomplished—whether because of or in spite of Federal aid (among other economic factors)—cannot be determined at this stage.

COUNTERCYCLICAL ASPECTS OF FEDERAL AID

Another basic point in the consideration of Federal aid for regional development concerns the framework of countercyclical policy. In line with economic theorizing of the past generation, it was claimed that, by centralizing a greater share of total government activity at the Federal level, it would be more feasible to use appropriate fiscal and monetary policies to promote maximum stability and growth. The theory went that Federal outlays would be kept to a minimum during periods of prosperity and increased during slack times in order to dampen inflationary and deflationary forces, respectively. Elastic tax sources, supplemented by budgetary surpluses or deficits, were cited as being powerful anticyclical weapons. As for the State and local governments, it was claimed that their revenues and outlays could not be so sensitively adjusted to rapid changes in business activity.

In practice, however, the principles of countercyclical financing have seldom worked according to the theory. Today, the budgetary problem at the Federal level revolves around the defense sector—in a sense partially independent of the behavior of the rest of the economy. Again, the backlog of need for public-assets (theoretically to be undertaken during recessionary phases) has mounted so steadily because of wartime conditions and unprecedented prosperity that outlays in this form cannot be geared exclusively to the swings of the cycle.

At the same time, the States have slowly been changing their forms of taxation to more highly elastic types, although constitutional and other restrictions are still limiting factors. In part, these newer forms of State taxation reflect changing attitudes, but, to a considerable extent, they reflect the need for enlarger bases because of the upsurge in spending at these levels (State and local government spending has risen in every year since 1944 and shows little indication of slowing down). And, in fact, these expenditures seem even less related to the cycle than those of the Federal Government, for they are related more closely to changing population patterns (schools, hospitals).

Adding up these diverse elements and problems at the Federal and the State-local levels, it becomes clear that a system of priorities must always be kept in mind in considering intergovernmental transfers of funds. The question to be answered should concern itself not only with the merits of a particular program, but, more importantly, with the overall pattern of total governmental receipts and outlays and their combined impact upon the entire Nation.

Representative MILLS. Mr. Curtis?

Representative CURTIS. Mr. Chairman, in order to get to the questions that I had in mind—and they are very broad questions—I wanted to make a couple of comments, too, which the panel can comment on, if they choose, in answering me.

One way I approach this problem of regional economic growth is from an examination of what we have right now, what is the status quo, and how did we reach that status quo. I am now talking economics.

I see three important historical factors that have contributed to it. One is the fact that the eastern seaboard was founded first and, therefore, became an economic base. Secondly, the importance of the economic importance of Europe, and the fact that the eastern seaboard was closer to Europe; and the third factor that I throw in is the effect of the Civil War, which also tended to increase the importance of the northeast seaboard.

The next step, as I would think, would be an attempt to evaluate the United States as if it were developing from within, without this historical background. In other words, what would be the proper economic structure of the United States were it not for this historical features?

I would seem to me the tendency would be for the economy to adjust toward whatever that optimum would be, and to gradually phase out these historical factors. As Asia becomes more important, for exam-

ple, the western seaboard is bound to grow. Likewise, as Asia and Europe remain important, the crisscross that is going to go through the country as a whole is going to develop the center. That is one aspect of this thing.

Another aspect that I would like to interject is whether or not you are not always going to have a degree of economic provincialism. In other words, is there not always going to be a sort of center or centers of economic control, as there is today in New York City?

This was brought forcibly to my mind about 3 weeks ago when our Subcommittee on Tariff and Trade of the Ways and Means Committee held some discussions up in Canada. The very points raised by the Canadians, complaining about the fact that management was being controlled in the United States, that investment was being controlled, the fact that some of their subsidiaries would not contribute to the local community chest—that was a very basic complaint—the fact that their labor contracts, in effect, were decided through the negotiations of the top national labor leaders and management within the United States, all were the exact complaints that I have heard for years from St. Louis businessmen.

Perhaps the term “provincialism” is an unfortunate term, because it has other connotations. What I am trying to get at is this: Are we not always going to have some degree of concentration of economic decision in a certain center or a series of centers? That will be a pattern of our economic picture.

Having pointed out those things, the one major question that comes to my mind is: Is it a function of the Federal Government to effect redistribution of wealth?

In our previous panel discussions it was almost presumed by most of the panelists that it was a proper function of the Federal Government to actually effect redistribution of wealth. That is one question I wanted to pose. Is that so?

A collateral question, of course, is this—or maybe it is an explanatory question: A great deal of what has gone on, like the TVA mentioned, the development of that through Federal funds, and the development of the West, if you please, the passing of the frontier, have important economic implications.

But I would not regard, necessarily, the moneys we are spending on the St. Lawrence seaway or the moneys we did spend on TVA, although they might effect the redistribution of wealth, that was not the primary function.

The primary function was to develop our national resources wherever they were. As the West was developed, that was not a redistribution of wealth as much as it was developing such wealth as we had. I would like to throw in that connotation.

Having asked the major question, Is it the function of the Federal Government to effect redistribution of wealth? I pose this thing that bothers me. If the Federal Government does do that, in many of these programs won't this effect the mobility of labor? To me, one of the most interesting economic propositions today is this question of mobility of labor. The passing of the frontier has brought about an end to a certain phase of mobility of labor.

Our immigration laws bear on the same thing. But if we went to Federal aid to economic distressed areas, to illustrate a point, could

we not be actually damaging a situation where there is a normal economic adjustment being made, one as I suggested, an adjustment against the historical background, to move more toward what would have been normal economic development of the country?

If we gave economic aid to distressed areas, would we be affecting a normal adjustment that would be coming about? One thing, as I suggest, would be the immobilization of labor, or an attempt to immobilize it.

My concluding observation is, of course, the complete immobilization of labor is feudalism. I think that that is not a very good economic state. If I may turn it over to the panel for discussion: No. 1, is it the function of Federal Government to effect redistribution of wealth and, No. 2, if it does do that, does not the Federal Government have to be extremely careful lest they interfere with normal economic growth and development, and using immobilization of labor as one aspect where there might be an impeding effect.

Does anyone care to volunteer or comment?

Mr. KUENNE. I should like to comment. I should like to duck the direct question insofar as an economist does not have a right to say that it is the function of the Government to do this or that. I think we could say, though, that if you do adopt as a social goal the redistribution of wealth, or the leveling out of income inequalities between regions, you are going to contradict certain priorities which exist in the market mechanism and it is going to cost you something economically.

Whether you want to pay those costs or not, whether you place a higher set of priorities upon this leveling out than you do upon the economic costs, is something which I don't think the economist can pass upon any better than anybody else. This is where you gentlemen draw the line.

I liked your approach. I think I would agree with your approach toward regional development generally, in that you would say the question of whether to do this or that should depend upon whether, abstracting from historical time, this situation would have come about.

I think one important illustration of the correctness of your being hesitant to have Government step in and act to redistribute wealth is the classic battle between St. Louis and Chicago for control of the Midwest.

If the Government had at that time acted to protect the older city, St. Louis, I think it would have affected the economic growth of the Midwest a good deal.

It was better, I think, to allow St. Louis to decline relatively and allow Chicago, this growing giant, to grow, from the point of view of economics.

Representative CURTIS. As a St. Louisan, I must confess, I agree with you.

Mr. KUENNE. As a St. Louisan, I must regret to say that I feel this is right.

Mr. ISARD. I don't know whether that follows. One of the reasons why Chicago developed rather than St. Louis was that the early railroad builders happened to pick upon Chicago rather than St. Louis for a variety of factors, none of which were really based upon sound economic analysis. Most of the decision was based upon guesswork.

So Chicago got the historical start. It could very well be that the United States economy might be operating more efficiently today if St. Louis were the point of concentration of Midwest activities.

Well, we don't know. I don't think you can reach a generalization. It could have been that in the 1840's or the 1850's, certain political economists might have firmly believed that St. Louis rather than Chicago offered major advantages for development. Governmental policy, designed at St. Louis development, might have been good and sound policy.

Representative CURTIS. What you are saying is, if the railroads in those days had had sources of good economic advice as some of our big industries today have, they might have chosen differently?

Mr. ISARD. They might have. I don't think Government should interfere when we don't have any facts or analyses. I think Government should only enter in when there are available an adequate set of facts and analyses.

It is true that when Government enters into certain functions, it does affect the redistribution of wealth. There are both economic changes, economic gains and losses; there are social gains and losses. It is not for economists to say what the Government should do. This is a matter for people to vote upon.

Representative CURTIS. But the economist can point out what is done. For instance, as a result of the Civil War, and the reason I mention it, and I know you appreciate why, at least the primary thing that happened, as I see it, was that the railroads developed on an east-west basis, and we had this problem in the development of the South and the freight rates, when railroads were the primary method of transporting goods.

Mr. KAVESH. I think one of the problems we must face is this: Whenever the Federal Government makes an expenditure, in a sense, this is an expenditure for regional development. You could talk about the classic approaches, such as river-basin projects and the like, as building up a specific region, even though the main purpose was not a redistribution of income.

But even when the Federal Government makes outlays for farm programs, this has a differential impact on the several regions.

I know, Mr. Curtis, that you are a Dartmouth graduate. I taught there for a few years and in traveling around the region and in speaking to farmers, I noticed that many of them were completely unaware of the existence of any program at all, because they were not growing the types of crops which receive these supports.

So in a sense, then, you do get differential impact. What I would like to say is this: Perhaps rather than assert that the function of the Federal Government is or is not to redistribute wealth, perhaps we should say that one of the functions of the Federal Government is to foster increased wealth on a general, rather than a specific, regional basis. That is, through appropriate fiscal policy, through appropriate political policy, the Government, as an economic agent, should be concerned with maintaining those factors which contribute to the overall growth of the Nation.

As I mentioned in my formal remarks, the fact that impresses me tremendously is the difference in the distribution of regional income of, let us say, 20 years ago and today. You can almost see the forces of economic change at work, as those regions which were formerly

called underdeveloped—parts of the South, for example—have experienced the largest relative increase in regional income.

If you look at some of the reasons for this, you can readily see why. A businessman confronted with high labor costs in a wealthy or “traditional” region—as you mentioned the Northeast areas—might consider it very logical to move his plant and his operations to another part of the country.

If you attempt to freeze this structure at a given point of time, whether functionally, economically, or sociologically, I think you may hold up the general overall development of the Nation.

And you can see some of the feedback already at work. Many sectors of the textile industry moved south until now there are relatively few differentials between, the Northeast part of the textile industry and the South. So you do not get an ebb and flow of these economic forces.

But if you freeze things, you may, over the long run, be doing a great injustice to the Nation as a whole and to the specific regions involved.

Representative CURTIS. I might comment that I agree that the programs you mentioned were essentially to develop and that redistribution is an overtone of that, although we always have to watch it. But we have gotten into some Federal programs which are almost pure redistribution.

For instance, aid to distressed areas we are now talking about, and this business of defense contracts going to affect distressed areas. It is true that one of those programs of redistribution to distressed areas is to counteract the effect of a Federal policy on cutting back on tariffs. At least, the argument has been used.

In fact, I think Mr. McDonald, head of the steel industry, as a member of the Randall Commission, had recommended that if we are going to affect certain industries, like textiles, because of a broad national policy on trade, let us say, with Japan, that those areas that happen to be in textiles should not bear the full brunt of a policy that is to affect the whole Nation and, therefore, there ought to be some Federal aid to counterbalance that. In a sense, we have what might be termed pure redistribution programs.

It is true that, as economists, you cannot give us the political answer, but you can give us the economic results, which might very easily change the political decision, if we knew the economic results.

Mr. TEBOUT. I wonder if I might first note one thing. When you discuss the economy operating in space you are dealing with something that does not have the adaptability that we ordinarily put to business firms; that is, new products, new lines every year, price changes and so forth.

When you make a decision to locate a plant in space you are stuck there for quite some time. You are dealing with something that is immobile, much more than we ordinarily think. Thus, we do have this problem with factors of production including labor.

With this in mind in answering your question, is it the function of the Government to redistribute wealth. If you say “no” to something like that, then it seems to me you have something that is quite a bit of a problem. First of all, why do you have gift and inheritance taxes? Why do you have a progressive-income tax, if you are talking about income redistribution?

So, whether it is a function of government to redistribute wealth, they do it, and I think they do it because they do not think the market mechanism is perfect. But on a regional pattern, I think this particular question raises some other very interesting questions. We do not know too much about what happens when a region grows to the distribution of income—for example, what happens to the distribution of income in California, a rapidly growing region? Does it become more unequal?

I think there are some things that indicate governmental policy needs to be considered. Reflecting, in the 1920's, we know the case of Florida and the death and inheritance taxes, where they eliminated them, for all intents and purposes to attract the wealthy people to come there to the "elegants' graveyard," and leave their money, tax-free.

Here, the Federal Government had to come in. Now, you have quite an analogous situation going on with many communities in the country and a good number of the States doing all they can to entice industry into their area.

This is clearly some kind of an artificial advantage. It gets to be very competitive. One need not look too far in the newspaper to see a great deal of expenditure trying to attract industry. The question is: Is this worthwhile? Is it good? Are these genuine advantages?

In respect to your first question, insofar as these inducements give somebody a free profit, this redistributes wealth. The second problem you raise is the question of what will happen if we did, so to speak, provide a perfect offset every time a New England textile mill closes—if the Government rushed in and bought textiles and stockpiled them.

Wouldn't this prevent the labor which we say, "should move," from moving? I think here you have to tread a very thin line. There are some segments of the labor force which are highly mobile and some you just cannot move. Here you are really dealing with consumers' preferences with respect to mobility.

This aspect of consumers' preferences is something the market mechanism does not register too well. It just has to be a social decision as to whether it is worthwhile to keep these people in, say, western Massachusetts and do something about getting new industry in or not. But the market does not say, "Yes, do," or "No, don't do."

Representative CURRIS. What would be the effect, though, if you froze an area? Eventually the market would come in, would it not, because there is a market for labor?

Again using as an example my hometown, Pacific firms are advertising for engineers and so forth, other short supply skills, in the St. Louis papers. That is the market bearing to play. In the West Virginia coalfields, there was a movement out. I do think that the Federal Government, or, let us say government, certainly has an interest in the protection against indigency and the impact of a blow upon an area.

There is a big difference between meeting a situation purely for a temporary time, to preserve human values, and going so far as to affect an economic result which might be a change of the area.

It would be wrong, for example, out in some of the ghost mining towns of the West to have attempted to immobilize the people there. Maybe that is what we are doing in some of our metal programs. I do not know. Those are questions that come to mind.

I do have one comment, if I may, in your mentioning the use of the tax structure to affect economic results. The analogy is a very good one. However, I happen to be of the school of thought that although every tax does have an economic effect, just as the development of any area will tend to redistribute wealth, if the Federal Government goes in, every tax has an economic effect, but should we deliberately use taxes to produce economic effects?

I personally think no, for many, many reasons. What I try to do, as I approach a tax, is to try to see that it has a minimum economic effect. Our primary purpose is revenue. I can agree with the theory of our graduated income taxes without ever getting into a redistribution philosophy by talking in terms of benefits.

I do not think it is stretching the imagination at all to say a person who is deriving a large income out of our society, actually, overall, is utilizing the mechanisms of government more, so I would say that although it may be an academic problem on the differences I am pointing out, I do not think it is.

I would approach it this way, just for a hypothesis: If the Federal Government goes into the St. Lawrence seaway development, certainly we are going to have an economic effect on the Midwest. In fact, the whole structure of the country, perhaps.

But the immediate objective should be, of course, is this a good, economic development? The aspect of how we distribute wealth, I would approach to try to minimize them so that we keep government in the position of not being an advocate, but maintaining a balance. Though we know we are going to have some effect on redistribution of wealth by the St. Lawrence seaway project, that should not be the effort, but we should be, rather, looking at how can we minimize that impact. It is a difference in philosophy that I raise.

The economist, in my judgment, can be very helpful to us if for no other reason than pointing out what the economic effects are going to be as a result of the St. Lawrence seaway, or TVA, or whatever it is.

Representative MILLS. It seems to me that from the point of view of the employment act objectives which, of course, is the basis for our study, the basic policy question in this area of Federal expenditures for regional development is whether the resources transferred by the Federal Government in these programs make a greater contribution to steady economic growth than they would if used by the Government in other ways or if released to the private sector.

Of course, I realize there are many considerations that go into a determination of these programs. But unlike the case of national security outlays and foreign aid, regional development spending policies, it seems to me, should be geared primarily to the Employment Act objectives.

Would the panel agree to that?

Mr. ISARD. Regional development spending policies should be consistent with the Employment Act objective, but perhaps ought to go beyond it, unless I am thinking too narrowly of the Employment Act objective.

Let me illustrate with respect to the distressed areas. I pointed out in my short statement that depression forces do tend to emanate from sore spots in the economy. Therefore we ought to try to bolster the weak spots in the Nation's economy in order to maintain a healthy, overall employment situation.

But I believe you can go beyond this objective. You can, for example, consider the long run. There are distressed areas which may not, perhaps, give rise to adverse cyclical influences. But these areas could be greatly assisted in the development of sound long-run policies, and I believe that the Federal Government should provide such assistance. In particular the Federal Government can provide these areas with information research findings, and appropriate helps, such as is done to a limited extent by the Area Developing Division of the Department of Commerce.

I think this function is quite important and the extent of it could be desirably increased. This is a pure education-information type of function. Going beyond this, it may be consistent for the Federal Government to engage in certain kinds of research activities to see if, in fact, there are resources in certain distressed areas which could furnish a sound basis for industrial development of these areas and for the overall growth of the Nation.

The Federal Government has done some of this kind of research on the use of coal as raw material in diverse petrochemical manufactures. I believe there ought to be more. This kind of research I consider basic. It is a kind of activity that State and local governments cannot perform effectively. It is a kind of activity that industry may not engage in. It is an important activity, I believe, from the standpoint of the health of the entire Nation. It, therefore, is a logical Federal function.

Representative MILLS. My statement and question, I think, are perfectly consistent with everything you said. Both of us are talking in terms of resource use that provides a net contribution to economic growth.

My question is this: Should that be the primary basis for determining whether such a program be continued or discontinued, that it make a net contribution to economic growth in this area of regional development?

Mr. KUENNE. May I comment, Mr. Chairman?

Representative MILLS. Yes.

Mr. KUENNE. To me that sounds a little ambiguous. For example, in specific terms, suppose there were a long-run depression in New England in which the New England textile worker was chronically underemployed. If the Federal Government stepped in there to implement the purposes of the Employment Act that I recall at the moment, I think such action could be construed as doing something which made a net contribution to economic growth, or at least a net contribution to preventing more economic decline.

But I think also the Government would be interfering with basic long-run adjustments which must take place before you have a healthy economy. I am no agricultural expert, so I disqualify myself, but if the analysis of the economic plight of people out on the Great Plains, in the wheat-farming districts, is true, where you do not have a great enough effective rainfall over a long period, then I think Government programs which might be construed in terms that you put forward, could also be, although contributing to the alleviation of short-run difficulties, interfering with facing up to long-term adjustments.

I think the Employment Act, of necessity, has a primary contribution to make to the solution of short-run problems. I think if you acted predominantly in regional matters according to the objectives

of the Employment Act, you would be biasing yourself toward short-run problems, perhaps to the detriment of the solution in the long run.

Representative MILLS. I don't know that I follow you exactly. Are you saying that even though a program in this area may make a net contribution to economic growth, that we still might not want to pursue that program or continue with it?

Mr. KUENNE. Yes, sir. I think the phrase is a bit ambiguous. I can't imagine an expenditure in almost any sector not in some sense making a net contribution to economic growth. Perhaps I just can't interpret your phrase properly.

Representative MILLS. I am thinking, because I am speaking to a group of economists, in terms of the alternative use of resources. Should we use resources under a program of this sort except that those programs make a net contribution to economic growth?

Mr. KUENNE. May I just make a last comment, that perhaps if you added the phrase "the highest contribution to net economic growth, available from limited resources," I will agree with you. I don't think it is a sufficient criterion that it just make a contribution to economic growth.

Representative MILLS. All right, Professor Tiebout.

Mr. TIEBOUT. I take it you mean the differential between if the expenditure had been made privately, as opposed to being taken from private sources by taxes and spent by the Government?

Representative MILLS. Or by the Government in some other way for some other program. It is a relative situation.

Mr. TIEBOUT. May I take a little stronger position than I really feel for the sake of argument. That is, at the regional level, if you go out and look at what is happening at the planning commissions—in Mr. Curtis' home city, St. Louis, the big metropolitan reorganization study, a political-economic study—the tremendous emphasis on city renewal, regional planning, and so forth, it raises the question of why are they doing all of this planning.

I think the answer is that they have to plan because something isn't working. Unfortunately, I think the thing that isn't working is the private market. It is extremely difficult for me, at least, to imagine leaving everything in location to the private market. We have too much evidence that although it does, overall, a pretty good job, it is not complete.

This is one area, regional development, regional growth, both at the community level, at the metropolitan level, and even larger regional levels, where there are tremendous problems because the private market does not work sufficiently.

Representative CURTIS. If I may comment, isn't that in itself a sort of market? It isn't private in the real sense of private sector, but you have 48 States and around 120 metropolitan areas now over 100,000 in population. Some of those that are between 50,000 and 100,000 are getting into this competition.

In a sense, isn't there somewhat of a market operation there? When you have 120 metropolitan areas competing on the basis of schools—I know they compete on the basis of having good school systems—good sewers, good police, and so on, does the Federal Government need to interfere with that operation if it is economically healthy?

Mr. TIEBOUT. Of course I argue in my paper that point, that this is a healthy thing, and does provide at the State and local level some solution to the problems. I don't think it is a complete solution. I am not necessarily sure who should do these things. This is that terribly knotty problem, as you know, of federalism and equity. I think economists some day are going to come back to this area, now that they have fought through stabilization. I have no concrete answers on that. I am sorry.

Mr. KAVESH. I would like to suggest that one of the problems we have involved here is, again, the flexibility of the State and municipal governments as to taxes, expenditures and the like. Many States have constitutional limitations about types of taxes. They have all sorts of legal limitations as to the amount of debt that can be incurred. It seems to me that a fair portion of the whole Federal impact on the regions, the States, the municipalities, is a function, really, of the inability of the State and municipal governments to handle the problems themselves, because of archaic constitutional provisions and the like.

I would suggest, again, that when we talk about Federal expenditures for regional development, we are saying that the Federal Government spends so many billion dollars a year in total, and of that a certain proportion will be designed specifically for regional-development programs. I would say, however, that to get a real picture of this impact you would have to look at the entire spending pattern of the Federal Government.

Representative MILLS. Professor Isard, did you intend to say something further on that point?

Mr. ISARD. Well, somewhat along the same lines. My thinking on regional development was following some of the thoughts expressed by Mr. Tiebout. Regional development today becomes closely connected with metropolitan development as well as resource development.

It is clear, as Mr. Kavesh has pointed out, that State and local governments are not in a position to look at broad metropolitan regional planning in the way it should be done. Often a single, metropolitan area encompasses several States, but there is no corresponding metropolitan government.

It is an essential function for some group to provide information, at least, on the important characteristics of metropolitan regions. This function is not being performed by State or local government.

It seems to me that here is another area where the Federal Government ought to step in at least temporarily until metropolitan governments do evolve. The Federal Government should help metropolitan regions with their problems.

In Philadelphia we have a water-resource problem re the Delaware River. You cannot rely on the States of New Jersey, Pennsylvania, and Delaware to develop that kind of information and research, which ought to be available for the peoples of these States, to make wise decisions re the use of this resource—decisions which will affect the welfare of the country as a whole. I think here is a function of the Federal Government. Maybe, as has often been suggested, we need a new arm of the Federal Government—a department of urban affairs, or something of the sort.

Clearly the Delaware River raises a resource-development problem which is closely associated with the problems of metropolitan regions, and the local and State government agencies are inadequate to cope with this problem. The Federal Government ought to step in until such time as appropriate metropolitan governments evolve.

Representative MILLS. Mr. Kavesh, I was not thinking in terms of the procurement of matters essential to our defense as being in the area of regional development expenditures. They may have a collateral effect of doing something to the regional economy, of course. The instance of the purchase by the Air Force of airplanes in California may have the effect of stimulating the economy in California. But our primary purpose is to obtain an airplane or a number of airplanes, not to provide regional development in California.

Professor Isard said in his statement that these sore spots in our economy have a geographical characteristic and if they are not alleviated, they may spread out. In other words, he led me to believe that he thought that the continued existence of a sore spot here and a sore spot somewhere else, might lead to the possibility of recession nationally, and because of that it was some responsibility to the Federal Government to step in to alleviate a sore spot. That would be the type of regional development idea that I was thinking of, though whether or not it would lead to a recession I think is debatable because if we go back and study the history of recessions, certainly those since World War II, we do not find them evolving from regional difficulties. They have come from other causes.

I am thinking also about the converse of this situation, wherein, and I can think of specific cases, broad changes in the economy, or maybe policies of Government in specific causes, have led to the creation of regional sore spots as well as cases where Government has not done anything to cause this development. But I was thinking about this type of a situation when I posed the question whether merely determining that there is a sore spot requires us to do something.

Let's take the example of fuel oil. Greater use of fuel oil for heating and propulsion, I guess, is one of the major sources of a regional problem that may exist in the coalfields of Pennsylvania and West Virginia. Shouldn't we, in considering public policy, however, proceed on the presumption that these long-run changes in methods and materials of production have, on the whole, a sound economic basis, so that we should be very careful to avoid deterring them through programs which might have the effect of subsidizing relatively inefficient resource uses?

So I get back to the question that I raised in the beginning when we look to the matter of regional development, expenditure of Federal funds under programs to assist in that purpose. Shouldn't we be guided largely by the broad objectives of the Employment Act in reaching conclusions about these expenditures?

Mr. TREBOUT. In general, yes, I agree.

Going back to the question of Mr. Curtis, I suppose one place we haven't paid enough attention is in this whole problem of the mobility of labor. I wish I were more of an expert on it than I am. Again I will disqualify myself somewhat. But it seems that this would be one place where Federal legislation and a strengthening of the existing laws and practices, from what information I have, is in order, in providing all aids possible to the mobility of labor. This involves not

only more complete job information, but it involves such things as tax deductions for capital gains in selling and buying homes, perhaps even transportation expense, and so forth.

The pure competitive economy, obviously, operates under the assumption of perfectly mobile labor. Yet this is not true. What we see is a partially mobile labor force.

In attacking this particular problem of the regional sore spot, and in being able to judge, economically, the expenditures of the Federal Government, if you assume labor were perfectly mobile there would not necessarily be any problem. But the point is, it is not. Therefore, you can go at this two ways: You can bring industry to the pocket of labor or you can get the labor out of the pocket.

Representative MILLS. Professor Kuenne?

Mr. KUENNE. I wanted to address myself to Mr. Tiebout's earlier points. The second approach I like much better. This is my own bias, perhaps. I think I understood what he was saying, but I also think there are certain implications here. Perhaps in the situation of an area not attracting industry as quickly as, for example, its people are becoming unemployed, or its population is growing, this might be an example of the market working too well from the point of view of that particular area. I think we are in the danger of assuming that every area should be growing at the same rate as every other area, and that if it does not, there is something wrong with the market, or there is some abnormal lapse in the area which should be corrected. I think approaches toward aiding the mobility of resources to flow out of this area, if the market is indicating that it is a declining area, make much more sense from the point of view that such a program would be shaped toward solving the longer run problems.

I like this idea of increasing and enhancing labor mobility much more than giving aid to the developmental commissions in the local communities which are trying to maximize the amount of industry they can attract.

Representative MILLS. I wonder if we could evolve some criteria in our discussion this morning, by which the Federal Government could be sure that resources utilized in this area would not be misdirected. You have given one criterion, I take it.

Mr. KUENNE. I am continually amazed at how I fall back on the market. I don't know any other criterion, although I am certainly not one that believes that the market is always right. But I think the only objective criterion you have, the only operational criterion, is what the market is saying. But I realize that is a very imperfect criterion of when you should act or how you should act.

Representative MILLS. Mr. Kavesh?

Mr. KAVESH. It seems to me that I would agree to a very considerable extent with what Mr. Kuenne has said here about the market mechanism. I think I would also talk in terms of the time perspective; that is, if difficulties develop in a given region I would allow a healthy period of time before any definite action is taken by the Federal Government, because I do not share Mr. Isard's feelings (if I interpret them correctly) that a regional problem can mushroom into a national one.

I feel that the reasons for recessions, as you yourself pointed out, are perhaps more general than a festering spot becoming a national sore. I would suggest that the market is the best criterion, that a

good deal of time be taken before any definite action on the part of the Federal Government be attempted, and that in the long run, we should keep in mind that progress is a rather sensitive force; in the sense, that if we attempt to freeze things, if we attempt to establish nationwide stability by region, we may very well be creating a set of circumstances which will slow down those upwards forces which generate economic growth.

In other words, I would again say that the best assurance for sound regional development is a steadily growing gross national product. Any measures that are taken for a specific region should be taken within the context of the entire national economy. The total picture should be paramount in any of the considerations, rather than the ones pertaining to any given region or subregion.

Representative MILLS. We could give many kinds of examples, I think, that fit in this area. But I am thinking now of a situation where perhaps an area is a sore spot economically because of the inability of that area to properly develop some particular resource that it has, that if developed would alleviate the condition of the area. That would be a justifiable use of resources, I presume, by the Federal Government, to make up for the lack of initial ability or push on the part of the community or area, would it not?

Mr. KAVESH. Yes, sir; but I would also maintain that, just from looking at economic developments over the past few years, if a sufficient economic opportunity existed, I believe this opportunity would be explored by private industry in most cases, and that it would be a rare state of affairs that would force the Federal Government to become involved.

Now, there may be special cases which transcend regional problems, such as atomic energy for peacetime use, and the like. But in most cases I would prefer that private enterprise seek opportunities if they exist. This is one of the reasons why we had the tendency toward equalization of regional incomes. The South, which perhaps because of the Civil War, or because of specialization in certain types of industries—agriculture—had been a generally depressed area for many decades. As a result of essentially privately development of the chemical industries, textile industries, the petro-chemical industries, southern progress over the past 10 years has been truly amazing.

By leaving problems essentially to the marketplace, to free enterprise, to the profit motive, you can solve most of these things if not almost all, without the necessity for the agency of the Federal Government.

Mr. ISARD. May I take a strong position in opposition? Is it appropriate?

Representative MILLS. Yes.

Mr. ISARD. The market mechanism works in a good many cases; but in a number of cases which are becoming increasingly important it doesn't work. We can say that textiles are bad for New England and that the market mechanism is working at this point. Textiles are moving out of New England. One could argue that this is good from the standpoint of the Nation's long-run welfare. However, I do not wish to take a position on this question. But I think you can also say that certain things are happening in the New England economy which the good, old private enterprise market mechanism doesn't handle.

For example, next to the textile industry the factor contributing most to the relative decline of New England is perhaps the unhealthy state of the Boston metropolitan region. It is one of the most inefficient metropolitan regions we have in the United States. This is partly because of its age. One can't expect industry to go to the Boston-New England region because the tax structure there is very unhealthy. Why is the tax structure very unhealthy? Because many of the municipal functions are being performed inefficiently. Why is this so? The answer to this question would be complex even if we could develop an answer. One thing is crystal clear however. The market mechanism in the Boston area does not operate to maintain as healthy an environment in this region as should exist, and as can be logically justified.

I think New England declines more than she should from the standpoint of the health of the Nation. The market mechanism does not step in and proceed with the kind of far-reaching social type of programs involving urban redevelopment, rehabilitation of transportation systems, and so forth, which are required.

Further I state very strongly that the State government and local governments, as they are now constituted, are inadequate for these functions. It becomes increasingly important for the Federal Government to step in and do something positive, at least from the standpoint of education and research. At least the public should be put in a position to vote more intelligently on various issues which develop so that we can attain in the New England situation a healthy Boston metropolitan, which then can contribute to the welfare of New England and the welfare of the Nation.

Representative MILLS. We found maybe two criteria so far in our discussion. First of all, if an area is a sore spot because of the inability to supply the capital for certain improvements—as in the example that you gave of the Delaware River and the lack of that development may well make it a sore spot in time, that the Government perhaps is justified in supplying some if not all of the capital needed to bring about that change.

Now you suggest that the Federal Government is also justified in supplying information, and that that is most important, in your opinion.

Mr. ISARD. Information, research, and education.

Representative MILLS. That is because of your feeling that that is not prevalent within the area. I don't know whether the people in Boston will take your evaluation correctly or not. When I attended school in that area, I was led to believe that the education not only of the United States but of the world centered there, and that there was nothing that the Federal Government could supply the area in the way of education, research, or know-how, and that that area had made great progress in building the rest of the United States and in supplying those factors to the rest of the United States. But if you are right, that would be another criterion that we might use in determining Federal participation in programs on a regional basis. I am not belittling your point, because you may be exactly right.

Mr. ISARD. I think if you were to poll persons in the Boston metropolitan region whose judgment you respect, you would find that among the metropolitan areas of the United States Boston knows relatively little about its problems and the functioning of its region.

Representative MILLS. Maybe they have spent too much of their time in cultural pursuits and too little in government.

Mr. KAVESH. Is it a function of Federal Government to take up the burden of a community or metropolitan region, which is in one State?

That is, this area does not transcend State boundaries. This is essentially a municipal problem within a State. Is it a function of the Federal Government to bail the Boston community out, if in fact it needs bailing out?

Frankly, having been there recently, seeing the tremendous amount of construction of roads, buildings, and the like, I am not so sure that Boston is lagging behind the national average.

Mr. ISARD. It is for all metropolitan regions of the United States that there ought to be provided this information-research function in terms of what these metropolitan regions can do for themselves, developmentwise. This is not done by industry. Industry does not step in to any large extent in slum removal, urban redevelopment, etc. I do not advocate that the Federal Government should actively participate. I believe this is a matter for citizens to vote upon. But at least it is a function of the Federal Government to provide the information and research that is essential for citizens to understand fully their problems and vote intelligently.

Representative MILLS. A whole lot of the information that might be provided by the Federal Government to a community might be information that the Federal Government had accumulated from the experiences of other communities, as I take it. It might be appropriate, as Professor Isard said, for that information to be made available generally among all communities if there is some reason for thinking that the use of this additional information might improve them. I can see that.

Are there any other criteria that you could suggest that the Congress might use in determining the expenditure programs for regional development that would fit within the objectives of the Employment Act?

Mr. TIEBOUT. I would like to suggest one thing. Suppose you start with a region that has a sore spot, and you determine that this is not just temporary; this is long-run. Or, if it is temporary, you say "Well, we will cover this in the same way that we have unemployment insurance for a temporary lapse at the national level."

If you decide this is a long-run situation, then the question comes up "What should we do? Should we see what we can do to get the labor out of here? Or shall the Government do something else?"

There is one area that has been continually overlooked in many communities, and this is "What can the community itself do?" To put this out simply as a cliché is useless. Calls for vigor, strength, and all of that do not tell you much, but there have been communities that have made substantial efforts in, I think, the right direction.

I don't know whether this would be something feasible for Government policy to encourage or perhaps support on some kind of a grant. That is, some communities have tried to build up within their own community aids to small business. I am specifically thinking of Worcester, Mass. Here is a community that, instead of going out and trying to attract industry—stealing it from someplace else—through the chamber of commerce hired 4 people who are expert—I believe,

1 sales engineer, 1 advertising man, a transportation man, a cost engineer—and offered their services free to small business.

From what we could gather, it was very successful. This is just the kind of a thing that I would prefer to see. This is aid that happens to be through the chamber of commerce, but if this sort of a program could get going through small business, it is a much healthier way, in my judgment, to build up a community. Anything that could be done to encourage this, and this is probably more in the province of the Small Business Committee than perhaps this committee, I think would be a tremendous boon to solving regional long-run sore spots.

There are things that can be developed within regions if somebody is given a little aid. When he gets about 10 employees, he suddenly becomes an ineffective businessman. If there is some agency that can give him advice free of charge and take a genuine interest in the business, not just a quick management survey, this sort of thing is a very healthy thing at the local level.

Representative MILLS. What I am thinking about as I ask these questions is whether or not our present programs that enter into the area of regional development are proper, whether or not under the situation that may well exist they should be continued, or whether they can stand a part of the cutback that may have to take place with respect to Federal spending programs if we are to substantially increase defense costs, avoid additional taxes, avoid deficit financing. I think all of you would agree that there are some places within our regional development programs that we could cut back. Would you agree that there are some areas where we can cut back?

Mr. TIEBOUT. Yes; I would agree.

Representative MILLS. Would you give me some examples of where you think we can cut?

Mr. TIEBOUT. That Federal expenditures can be cut?

Representative MILLS. Yes.

Mr. TIEBOUT. On some farm supports.

Representative MILLS. I am talking about regions.

Mr. TIEBOUT. Regions?

Representative MILLS. Yes; I am talking about regions.

Representative CURTIS. I think that is a good answer because I think it is regional. It is by crop.

Representative MILLS. It isn't very regional, I don't believe. Aren't we spending about \$5 billion altogether on agriculture?

Representative CURTIS. Yes; but the benefits go to cotton, rice, tobacco, sugar, wheat, depending on the regions that raise them.

Representative MILLS. And milk products.

Representative CURTIS. Yes; and each form is a different program.

Representative MILLS. There are almost as many commodities involved in support under the agricultural program as there are countries involved in foreign aid, I think.

Representative CURTIS. One of the problems in Missouri is that Missouri has such a diversification in agriculture, we are always tail-wagged by a big dog.

Representative MILLS. We will let Professor Tiebout get by, then, with considering them regional, if he desires to do so. But what others? Certainly that is not the only program that we are going to be able to find in this entire hearing that we can cut, I hope.

Is there any other regional program that could be cut back, in the opinion of this panel?

Mr. ISARD. Not of equivalent magnitude, certainly.

Representative MILLS. Professor Kuenne?

Mr. KUENNE. No, sir; I am afraid I couldn't go further.

Representative MILLS. Mr. Kavesh?

Mr. KAVESH. I would like to say, Mr. Chairman, that although I would not care to single out a particular aspect of the Federal program for regional development, I think that perhaps in terms of the criteria you were suggesting before, that one of them might go along these lines: That according to the statistics I have seen and worked with, the Nation—if our long-range growth potential is going to follow the path that the Joint Economic Committee projected a few years ago—will be faced with labor shortage at least for the next 5 years or so, and I would say that one of the criteria to be employed in judging the merits of a regional development program would be to what extent these programs will contribute to or alleviate this labor shortage.

Perhaps right at this moment talk of a labor shortage is a little superfluous because business conditions have slackened a bit. Nonetheless, as I said earlier in my remarks, a program such as the Tennessee Valley program which made, I think, exceptionally fine sense during the 1930's, would make much less sense as a feasible economic proposition if put into effect today because of the huge demands it would make on the available manpower of our Nation.

I would say—returning to your original question about where we could cut—that the national-security program would be paramount in any consideration; and that, rather than talk about any cut of considerable magnitude in one or another section of these regional expenditures, I would suggest that we may have to pull in slightly all along the line.

This is why, in most of my remarks here, I have tried to look at the whole Federal expenditure program. I feel that over the next few years, the national-security sector will be of such considerable importance that we will have to look at things such as regional expenditures and the like in terms of possible cutbacks.

Representative MILLS. At any rate, I would take it you would feel that in this area in the light of the possibility of increased outlays for defense, that the Congress would be justified in very carefully reexamining our programs for regional development and expenditures involved?

Mr. KAVESH. I would say so, sir.

Representative MILLS. Mr. Curtis?

Representative CURTIS. One thing I was a little disturbed about was this: I gathered the impression on the part of some of you, at any rate, there was an apology that there weren't any other criteria than the market as a test for these things. Or maybe it is not an apology but the facing up to a realization. Yet perhaps we could broaden the term of what the market is, and I think we legitimately can, to include the competition between, say, 120 or more communities. A breakdown of what is going on in those communities, I think, reveals one thing, and that is the great pressure comes from people with selfish economic interests, let's say enlightened selfish interest, perhaps, but

those interested in retaining the values of downtown real estate, those who are interested in the fact that they have their enterprise in that community, and if that community declines, their enterprise is going to be hurt.

The stimulus or drive that comes within the various communities to do something about these complex economic problems that they are faced with stems, to a large degree, from the industrial leaders of the community. It seems to me that is a good working of the market principle.

The reason I tend to like to go to the market is that I regard it as no more than a method of trial and error, and I hope an enlightened trial and error, as the economic knowledge is more widely disseminated, an enlightened trial and error system to try and find out what will work. If we knew the answers, we could have somebody up at the Federal Government say it. But if the reason we are not functioning so well in the market is, as you say, the market is not a good test, I suggest it isn't the system, but it is a lack of knowledge. We will not have any more knowledge at the Federal level, but probably have less, if that doesn't come out in the market process.

That is what disturbs me very much. It is this business that when something doesn't work, assuming that it could work if we changed the system, when really, upon analysis it is lack of knowledge and information that is the reason it doesn't work. One of the questions suggested by the staff, which is a good one, is: What does the regional and local planning effort reveal? Does it show inefficiency of market, or does it show unwillingness of resource owners, in affected areas, to react to market information?

Or, I might add myself, is there a lack of real market information?

Mr. ISARD. I would say that we lack a lot of information, and of the type that the local and State governments don't normally collect. This is where I see the Federal function of collecting new kinds of information on a more extensive basis than is currently being done.

Representative CURTIS. Do you think the Federal Government is well suited to do that? I have often thought that a better way is to encourage the multitudinous laboratories, if I may use the expression, throughout the country, to do the job, at the academic level in the various business schools, or universities. At the practical level are the laboratories I have suggested, of your local 120 communities.

Mr. ISARD. You don't rely on universities to collect information on industrial output or number of wage employees. If you do, you obtain inconsistent sets of data. Universities do not use the same concepts, procedures, etc. If you are thinking about resource problems, such as water problems and land problems, the Federal Government could truthfully collect information, perhaps census type, on land uses, which can't be done by local groups or State groups.

Representative CURTIS. Now, I think we are getting somewhere. That much I can see. We have a subcommittee of this Committee on Economic Statistics; and that subcommittee is constantly working, as a result, I might say, of gentlemen like yourself coming before us, and telling us that in this area there is economic ignorance. It could be that that information could be gathered. So we, in turn, will pass on those recommendations either to the Department of Labor or wherever else it is important.

Yes; that I can see. But I gathered the impression that you would, more or less, have an ad hoc group, a new department, or a new bureau, who might go in, to use your illustration, into the problems of the community, the community development.

I can see where the statistics might be very helpful; but I question whether, with all of the processes going on right now in competition with these 120 communities, as it were, whether they need to have an ad hoc group for that—but don't we need, rather, to just beef up our economic statistics?

Mr. TIEBOUT. I have two comments. First of all, if this committee could do anything to increase the available data at the local level, I think this would be a tremendous boon. Let me put in two comments on this. Especially at the community level, there seems to be some tendency in the data-gathering agencies to aggregate everything into a metropolitan region, which is useful for some purposes. But if I am a resident of Evanston, Ill., I don't like all of my data combined into the Chicago metropolitan area. I have an awful time getting Evanston data.

This is not unique. So, if we could do anything to get more data on specific communities, it would be better. The census data only gives median incomes in the United States. This is, I think, one problem.

The other problem, and perhaps more fundamental, the one which you suggest or raise the question on, is: Is it a lack of information or is it the fact that the market doesn't work in these communities regardless of whose responsibilities—the State of Illinois, the State of Massachusetts, or, perhaps, the local government. I think, in all honesty, we see too many cases where something isn't working.

If the market were working, we wouldn't have the urban-renewal studies. If the market were working, we wouldn't have the transportation studies. The market works, but only to a degree and only with lags. Whether it is a function of the Federal Government to come in, in a study role, to aid communities in understanding what is what, I don't know. This is a question, again, of federalism. But I think, as a more practical level, one thing is quite obvious, and that is that, while the Federal Government has a pinch on finances, it is obvious the State and local governments are in even worse condition. It is very difficult for them to get the funds for research. And you do, obviously, have to consider this at a practical level.

Representative CURTIS. If it is agreed that the market system itself is a gathering of information, and an application of the information available to try to solve the problem, then I think—well, to me, it is. I see you shaking your head. To me, that, in essence, is what is going on. I suggest that, if the market doesn't work, it may be that the clogging of the procedure is wrong. That can be. You can always have the procedure itself clogged. But, assuming that the procedure is working, the failure to solve the problem can easily be lack of information.

I have often said that the Congress, in essence, is no more than a set of procedures to gather what wisdom exists in the society and apply it to a specific problem. In fact, that, to me, is the function of the Federal Government, to a large degree, to be sure that what information we have is brought to bear on the problems that face us.

I am greatly disturbed at this tendency to feel that, just by changing a method of doing things, you can get the results when you still lack the information. Take the economic basis of this situation we have of suburbanization. I have heard it described, and I think it is right. It is the impact of electrical power and the impact of the automobile as a method of transportation. That may be oversimplification, but those two factors lie at the base of it. It was an economic set of circumstances that created this business of concentrated cities going up in the air in the first place.

With that economic picture involved, if the Federal Government moves in, they may retard what will normally develop, but this country is going to continue to suburbanize. The agricultural population, the percentage, is going to continue to decline, as it has since 1780, and the Federal Government can put all sorts of programs in to try to stop that economic result.

In my judgment, all they are going to do is foul it up and make it worse. But, in the same way, the failure to recognize the fundamental reasons, economic reasons, behind suburbanization can foul up, as it is now fouling up, a lot of these programs.

So, it comes down to one thing, in my judgment, economic ignorance, and it is a question of how do we go about getting the information. One of the best ways we have, in my judgment, is the market process, if we can unclog it, and then to enlarge our approach a little bit to include in the market what I have suggested is properly market, in a way, the 120 municipalities competing with each other.

Mr. TIEBOUT. May I just comment on that? I agree our problem, and I think the one Professor Isard addressed himself to, is that here is a market operating, for example, in St. Louis, and we cannot get any data on it. Whatever the market records, it is not available as is stock-market data. We get the 1954 census of business and a few other sources. There are some data in these, but that is about all. It is very sparse data. Communities don't even know the level of income. It is just not available.

I would agree with you that the market is a good indicator, if you can measure the market. To measure the market requires that somebody record market data and make it available.

Representative CURTIS. We need more economists, and we need a great deal more economic statistics which, in turn, economists can suggest.

I would like to move on to one other basic observation which has come to my mind in our discussion here, and then apply it to a specific economic exercise which the Congress recently went through, with my decision on the thing made largely out of ignorance.

It seems to me we have two basic areas we are talking about where the Federal Government moves in. One is in new development, taking an area like the West. The other, the one that is absorbing a great deal of our time today, and what we are talking about here on this panel, is adjustment between areas already developed.

Incidentally, this is a world problem, too, because, in our U. N. discussions and trade discussions, they break down into the problems of underdeveloped countries, as we term them, as opposed to those problems of the countries that are more developed.

I wanted to turn back to look at new development a little bit. The exercise, the economic exercise, I referred to, was the upper Colorado

project; although I am, I believe, and the record, I believe, will show, a very staunch member of the economy bloc, I voted for the upper Colorado development. Incidentally, I voted for the St. Lawrence seaway.

Those are two projects I thought were economic. The argument of the proponents for the upper Colorado project was largely advanced on agricultural economics. I thought they didn't have much of a case. If it had been a question of the economics of agriculture, I would have voted against the thing in a minute, because we didn't need any more land then for agriculture, as I saw it.

The thing that struck me was this: The main problem, it seemed to me, was lack of water for industrial and human consumption. If we have water for human consumption, and industrial consumption, an area which previously was unpopulated and unproductive could support a tremendous population which, in turn, would increase the national GNP, and all of these multiplier factors that you economists talk about would be brought to play in a very forceful manner.

I tried to follow this closely. I read the hearings of the committees that went into this subject, and I listened to the debate very carefully. But this point was never really developed in any way that I could really draw any honest conclusions.

I finally went by a rule of thumb. I guessed that we would get a hundredfold in return from doing this. To me that is good economics. That is a new development.

In the St. Lawrence seaway, the economic exercise there was essentially development, of course, but it involved these problems of adjustments between already developed areas. Yet even there there were no guidelines that I could find to help me with my decision. I voted for the thing by a rule-of-thumb application. I felt that overall there would be a tremendous return. My only comment was that if Canada wanted to do it by themselves, I sort of didn't want to feel hoggish. If they wanted to, I wanted to let another country go ahead. But that is merely a sideline. The reason I brought this out was as follows:

Taking the upper Colorado, what guidelines are there that the economists could have suggested to us which we could use to measure this?

Maybe they would have been inadequate, but if we could measure, what do you suggest would have been helpful in your science that would have helped us?

Mr. KUENNE. I dislike playing the role of cynic, but I do feel that the market is a mechanism which, when vast, almost infinite amounts of information exist, acts to coordinate it. It is a coordinator of information. To a degree, collection of information, of course, would substitute for the market function which is the vast impersonal coordination of very many little bits of information into a program of action. I don't think you can ever substitute for that. I am willing to say that sometimes it doesn't work out. But I also feel that economists put too much emphasis on the collection of data to make decisions where the market is not believed to be functioning properly.

I like your point. This is where the economist should be operating, I feel, in developing these frameworks of analysis, to be able to tell

you, "If you take this system, and if you shock this system by building a dam in it, what will be the impacts throughout the entire economy? What kind of benefit-cost calculus can you use to tell us whether we should build this rather than that? Where will the employment tightnesses arise? Where will the electric power difficulties arise?"

I feel the economist, to this point, has not given you mechanisms from which the answers to questions like yours can be generated. These faults are independent of the collection of information. As an economist, I feel that we have failed you. I think none of us is satisfied with the theoretical models that we have. We can't tell you, "If I change this variable, what will be the pattern of variation throughout this entire area?"

I feel that we should be doing more work along these lines. I would tend, perhaps unjustly, to feel that the collection of information is not our primary lacking.

Representative CURTIS. It is the utilization of what we have?

Mr. KUENNE. Yes, sir; I think you could make a pretty good case for saying that sometimes there is too much information collected, that it is awfully hard to stay on top of the information.

Mr. TIEBOUT. Let me dissent. Here is a legitimate question on which I think the economist can provide some standards. These standards are well known to students of public finance, that if the expenditure along this line yields—and so forth and so on. What you have raised, I think, in essence, is a question of the total impact of this dam in terms of raising the national income of the country. You would like to know whether this one, with a given amount of expenditure, will raise it more than if it were spent on something else.

In the absence of information, you would make your best guess that, yes, as you said, it would make a hundredfold return. There are theoretical techniques that will give some clue as to the magnitude of this impact.

Professor Isard and Professor Kuenne themselves have done the same sort of thing with respect to the impact of steel on the Greater New York-Philadelphia metropolitan region, a very difficult job. But, nevertheless, it can be done. There are techniques to do this. So don't despair. There are techniques to do it, and they have been developing in the past few years, as a matter of fact. But, again, in disagreement with Professor Kuenne, there is not sufficient data to plug in.

Representative CURTIS. I got a note from our economist on the staff who said that the economists would probably welcome being called in more by the Government on these things. Of course, I feel, too, that from the political angle we do need to utilize technical information a great deal more. In my judgment, that is exactly the heart of the farm problem, and why I have been very anxious for this committee to do exactly what they are going to do next month. That is to go into the economics of the agricultural program.

We have a fine set of papers on that. Maybe, by utilizing the talents that exist, and the information that exists in our society, we can start bringing them to bear, as we should, on these problems. The purpose of our hearings here is exactly that. I think we do gain a tremendous value through these exercises that you gentlemen participate in by getting at this particular point.

I have no further questions, but if there are any comments, I would like to have them.

Mr. ISARD. I would like to comment upon a question you raised some time ago about areas in which there might be cutbacks. Aside from the farm problem, which has already been raised, I don't find any. In fact, I am led to believe that a successful program of building up our national health and vigor is going to lead to a definite increase, and should lead to a definite increase, in expenditures for regional development. I feel that there are certain parts of our economy which are inefficient, because of the failure of the market mechanism, as in the metropolitan transportation. There is in fact tremendous inefficiency there. I think that to be able to develop efficiently its other programs the Federal Government will have to step up its expenditures on the development of certain resources, especially in connection with metropolitan regions.

Representative MILLS. Let me raise this final question. Although we do have another subcommittee that is in the process of making a study of agriculture and the problems involved—its hearings take place from the 16th of December through the 20th of December—because you gentlemen have included agriculture and our agricultural programs within the area of Federal expenditures for regional development, would you just for purpose of this record point out to us, from the viewpoint of course of the Congress, what is wrong in what is being done in order that we might perhaps evaluate some other regional-development program from the point of view of the same criteria.

It is possible that some of the other regional development programs have some of the same basic weaknesses that the agricultural programs may have.

Would any of you, for purpose of this record, care to comment on those questions and observations?

Let me say this prior to your remarks: I think almost without exception every economist who has appeared before this subcommittee during these hearings, and who has mentioned the agricultural program, has used it as one element of Government spending that could be either eliminated or reduced. Why is the program bad in the opinion of the economist?

Mr. TIEBOUT. I am not an agricultural expert. I don't know if Professor Galbraith has been here from Harvard, but I believe he might take the opposite view.

Representative MILLS. As I recall, I have been sitting here and have just reached the conclusion that that is one of the places where everyone who has commented has said that some reduction in Federal spending should occur. Maybe not all of them have commented on it, but it seems to me without exception they have.

Mr. TIEBOUT. I think the objections that are raised to immobility may be raised here. Perhaps a more fundamental objection, and I am no agricultural economist by any means, is that the method by which it is done. If you applied it to the industrial field, and said that we want to support the incomes of these people in the industrial field, then in Toledo, Ohio, instead of giving unemployment compensation if Kaiser-Frazer's plant collapsed, the Government would start stockpiling Kaiser-Frazer cars. This is the equivalent to what

we have in agriculture. There is nothing wrong with saying that the income of the farmers is too low, and socially we want to keep people on the farms, because we think this is a good, healthy thing. My main objection is the means by which the payment is done. It is not a direct-income payment to the farmer, but it runs under another guise.

Representative MILLS. You would prefer the direct-income approach?

Mr. TIEBOUT. Sure. Call a subsidy a subsidy.

Representative MILLS. Is that, do you think, what other economists have had in mind who have appeared here? We have not questioned them on this point, in view of the fact that there is another hearing to occur.

Mr. TIEBOUT. Well, there are classical problems which will arise. One is that the farm subsidy payments do not—I am not stating this as a fact, but what I think is a fact—do not reach the people who really need them. There is greater inequality of income among farmers than among the rest of the population. Moreover, it tends to promote things which evidently the market rejects. In trying to stabilize farm income, what you do is you put an umbrella over it and keep it artificially high, so that you not only smooth out the cycles, but you raise the price of farm goods, hold them high, and have uneconomic goods.

Representative MILLS. Let's talk about it in terms of economics. You are making a number of statements that I am sure can be translated into failings of the program in terms of economics. You say immobility of population is created by the existing program. Is that in part what you are saying?

Mr. TIEBOUT. I would say it is.

Representative MILLS. And you are saying that the program itself does not lead to the optimum use of resources allotted to the program? Is that what you are saying?

Mr. TIEBOUT. Yes, I would say that. In other words, if the Government spends \$5 billion on agriculture, unless it were a very unique program, it would not only allocate too many resources toward agriculture as opposed to what the market would, but it would probably distort the allocation of these resources within agriculture. In other words, you might get too much in some sense of one crop and not enough of the other.

Representative MILLS. So you say in addition that if the program is to serve the purpose of redistributing income, as it has been described on 1 other occasion before this panel, that there is at least 1 other method that comes to your mind that would be preferable to the existing method for accomplishing that purpose.

Mr. TIEBOUT. Yes.

Mr. KUENNE. I think the fundamental objections which the economist would raise to the farm program are that—and again I must disqualify myself as an agricultural economist—the market is the best indicator of efficient resource use we have, and the market says that every factor should go where its contribution is largest, measured by the market. If you are holding people on farms when their contribution to the product is maintained only by the Government buying that product, then they should be elsewhere where they would be earning more.

That is, perhaps they should flow into the cities because their contribution to the economy's product is greater there. If you have a program which keeps up their contribution to the society in market terms artificially, if it sustains it artificially, then you are interfering with a long-run adjustment which the market says should occur. Those people should go from the place where they are now, where the market judges their contribution not to be great, to areas where the market judges the contribution to be great.

Let's say in factory employment in the city. To the extent that you interfere with that, you are bolstering them in a short-run solution, you are keeping their income higher, and in a sense keeping their welfare higher than it would be in the short run, but you are interfering with that long-run adjustment which the market, for good or for evil, is dictating.

Representative MILLS. One of the principles of market economics is that immobility of resources leads to wasteful resource use?

Mr. KUENNE. Yes. If the market dictates, the labor force should flow elsewhere, because its contribution would be higher. If you should interfere with that mobility, you are interfering with the market's dictation of what is better. Anything you do to alleviate the short-run solution interferes with the long-run solution.

Representative MILLS. Does anyone else care to comment? I didn't mean to get all of you to do so, though of course you are perfectly at liberty to do so, if you desire.

Mr. KAVESH?

Mr. KAVESH. Mr. Chairman, all of us have reiterated that we are not agricultural experts. I am sure that in the hearings to be held there will be spokesmen for the agricultural interests. In the studying that I have done on this agricultural situation, I am convinced of the fact that most economists who speak out fervently against agricultural programs have really not thought about it very much. Just mouthing simple generalizations about economics is not really any practical way of solving this whole series of problems. Clearly, and this is perhaps somewhat paradoxical, you might say the farm problem to a considerable extent represents the fact that the market works only too well. That is, in the face of excess production of some commodities prices would fall considerably.

Here I would say that the economist must think in terms of a political or social economist. That is, farming is a way of life, which is a generalization we all often hear, but it is a consideration, I think, in this problem which cannot be overlooked and should not be overlooked.

Representative MILLS. The economist is not so much concerned with whether the amount be \$5 billion or zero, as he is that the amount that is used be used in such a way as to bring about the optimum return from the resources use. Isn't that the primary concern of the economist?

Mr. KAVESH. Yes, sir.

Representative MILLS. And because the economist thinks that the resources that are presently being used in agriculture or for agriculture are not being used in a way to produce optimum returns, the economist then begins to wonder whether the present program is the one that should be continued. Isn't that pretty well what disturbs the economist?

Mr. KAVESH. Yes, sir.

Representative MILLS. Mr. Curtis?

Representative CURTIS. Mr. Isard made the comment of transportation not reacting as well as it might to the market. It seems to me there is a particular area where we have Government in it up to the hilt. I have almost come to a rule of thumb that the more Government gets into some aspect of the economy, the more fouled up it becomes. I think the reason is that if we have the referee participating we end up with no referee. I go so far as to reject the theory that Government should go into certain businesses of a monopoly type, in order to apply a standard, such as is used in the TVA argument.

I personally think that that might not produce sterility, but it might operate the other way around. We have some weed killers that operate on the theory of making growth so luxurious that the death occurs from that end of the line.

That was just an observation that seems to me to be all too true. The more we get Government in these specific areas, the more difficulty we find. It can be said, of course, that Government tends to get into areas where difficulty is already existent. So it may be that that is so. There is only one specific comment I wanted to make and that is for my own satisfaction more than anything else.

You mentioned Philadelphia and the problems of that community. There is one example I can give you where a group is trying to move the Federal Government in. I have been watching it carefully over a period of a number of years. They trot the dog out on the floor of the House ever so often. Up to date I have been able to keep it from becoming an actual live animal. That is an attempt to have the Federal Government aid local communities in building marketing facilities. The argument is that we want to have healthy places for agricultural products to be processed and sold in a community. Any one who is opposed to the Federal Government doing it, of course, wants to have vermin and unhealthy standards.

My point is that many of the communities, St. Louis in that instance, really did solve their own problem. I just saw up in Toronto a beautiful set of buildings that they just recently erected for sanitary, healthy marketing facilities through the private sector.

Philadelphia is perfectly capable of solving that problem. So often that is the case, though, it seems to me. I think on examination there are many areas that the Federal Government has been moved into through this same plea of "If you are not for the Federal Government moving in, you are against adequate cheap housing," or "You are against sanitary conditions," the result being that it puts people like myself who are in the economy bloc, beyond the Christian pale. We are against poor people, old people, little people, sick people, young people, military people, ex-military people, working people, and so on.

This is a confession in the hope that somebody will have pity on me and think that maybe I am really interested in the overall welfare of people, and with that interest I try to think carefully about specific programs designed to help little or small people.

In reference to small business, I make this observation. Every time we go to the Federal Government to help small business, we are almost going to hurt it, even though we pass something that is for its benefit. Small business does not have the lawyers, accountants, and so forth, to cope with the Federal regulations.

If anybody is going to get a benefit out of a Federal regulation, it is somebody who has the technicians who will enable them to utilize it.

I just wanted to get that off my chest, Mr. Chairman.

Representative MILLS. Gentlemen, we thank you for the papers you have filed for the compendium, and your appearance today, and the very helpful information you have given the subcommittee. Thank you.

The committee will stand adjourned until 2 o'clock this afternoon in this room.

(Whereupon, at 12:17 p. m., the subcommittee recessed, to reconvene at 2 p. m. the same day.)

AFTERNOON SESSION

Representative MILLS. The subcommittee will please come to order. This afternoon the Subcommittee on Fiscal Policy turns its attention to Federal expenditure programs in the area of housing and urban development. There are few programs outside the defense area which are more compelling of widespread public interest than are housing programs.

Recent experiences have demonstrated that changes in Federal policies in the fiscal and monetary area, particularly the latter, could have profound repercussions on the housing industry. It is not entirely clear, looking at Federal policies overall, that they have been consistent or have given adequate recognition to the possibility of opposing influences on this industry.

In addition, there are a good many questions yet to be resolved about the consistency of public policies in the housing industry with overall economic policies designed to promote a high rate of expansion of our total productive capacity with minimum fluctuations in the price level and rate of resource use.

Each panelist will be given 5 minutes in which to summarize his paper. We will proceed in the order in which the papers appear in the compendium. We will hear from each panelist without interruption. Upon completion of the opening statements, the subcommittee will question the panelists for the balance of the session.

This part of the session in preceding panels has been informal, and we hope that it will be equally so this afternoon. All members of the panel should feel free to participate, commenting on papers submitted by other panelists as well as subcommittee questions and raising questions of your own.

Mr. David Blank, with the department of economic research, Columbia Broadcasting System, Inc., will be our first panelist.

Dr. Blank, you are recognized.

STATEMENT OF DR. DAVID BLANK, ASSOCIATE ECONOMIC ADVISER, COLUMBIA BROADCASTING SYSTEM, INC.

MR. BLANK. At this particular point in time, I think it important that we distinguish sharply between long-run and short-run problems. This distinction applies to the field of housing as it probably does to a number of the other areas with which this committee is currently concerned.

Over the long run, say over the next 5 or 10 years, we are again going to be faced with a situation in which housing is competing with other industries for scarce resources. In addition to problems of general inflation, we will have to expect further substantial rises in the cost of constructing homes, if the past is any indication. For residential construction costs have risen in every year since World War II, except for 2 years. Residential construction costs have risen more than the general price level. Residential construction costs have even continued to rise since Mid-1955, a period during which the annual rate of housing starts has fallen off by almost one-third, and the deflated volume of residential construction work put in place has declined by more than 15 percent.

Yet, residential construction costs have risen by almost 7 percent during this period. At this rate, it would only take about two decades for residential construction costs to double.

Why is this a problem for the Federal Government? It is because, as another panelist has put it—

as a nation we are unquestionably and irrevocably committed to substantial programs of Federal assistance for housing and community development. Housing and community development have become vested not only with public interest, but specifically, with Federal interest.

We do not have a great deal of time to deal with this problem. A few years from now babies born during and after the war will be reaching marriageable ages and there will be a demand for houses that will probably be 50 percent or more higher than at present.

At that time, the pressure on land, labor, and materials is likely to be greater than we have experienced since the old postwar years. In the immediate future, of course, the situation is likely to be quite different. If the current decline in the general economy continues for any length of time, housing is likely to be one of the leading candidates as a countercyclical stabilizer, and it is even conceivable that residential construction costs may rise only slightly next year.

But we are surely in a very difficult situation, if it takes the combined effects of a relatively low level of residential construction, a slowdown in total construction, and a mild recession to keep residential construction costs from rising rapidly. Thank you.

Representative MILLS. Thank you, Mr. Blank.

Dr. Robinson Newcomb, economic consultant, Robinson Newcomb Associates, will be heard next.

STATEMENT OF DR. ROBINSON NEWCOMB, ECONOMIC CONSULTANT, ROBINSON NEWCOMB ASSOCIATES

Mr. NEWCOMB. It has been just over 25 years since the Federal Government moved vigorously into the housing field through the creation of the Home Loan Bank Board. Further innovations were made in creating such agencies as the FHA and Public Housing. In each of these instances action was taken to counteract the effects of a serious depression.

Piecemeal modifications have been made to these institutions, but they have not been reexamined basically to see how they might fit a high employment rather than a depression economy. This may be an opportune time to reexamine the position which the Federal

Government might take in the housing field, not to overcome a depression, but to promote economic growth and stability.

The home-loan bank system was created to provide:

1. A central credit system for institutions which make mortgage loans;
2. Improve mortgage techniques;
3. Insure shareholders and depositors in member institutions; and
4. Provide backstop protection through the credit of the United States Government.

The system has continued to think in terms of protecting against another depression. It still thinks in terms of high reserves and liquidity. It still provides little central credit. It makes funds available through use of short-term financing, despite the fact that mortgages are long-term papers.

It has done relatively little to facilitate the flow of funds to regions most needing them, such as the South and West. The Bank System is insuring savings accounts up to \$10,000, but it has made no move to encourage a large-scale flow of credit from institutions such as pension funds.

It would be very easy to provide a simple mechanism which would make home mortgages an attractive form of investment for pension funds. The Home Loan Bank System should be reexamined completely in the light of institutional patterns and mortgage needs of 1958.

Credit control is a useful but at times inefficient method of fighting inflation. For instance, when it diverted funds from housing to industrial equipment last year, it forced up the price of housing and of equipment.

Reducing the volume of home building helped raise the price of housing and additional credit for machinery orders forced up the price of new equipment. Additional credit for machinery helped growth but not stability. The impacts of credit control on inflation via their impacts on housing need more attention.

The FHA was set up to insure individual mortgages rather than funds advanced to mortgage institutions. It did much to improve mortgage standards and techniques and to improve the design and construction of homes and communities. But like any institution, it has tended to become stereotyped.

The underwriters want to be sure that the mortgages they are insuring will be paid off. Therefore, they tend to insure only types of housing that have been successful in the past. Since the initial work was done, the FHA has tended to discourage, rather than encourage, progress.

The present Commissioner is conscious of this problem and I feel sure would welcome support from the Congress in efforts to revitalize his institution. More attention to existing homes and the problems of urban renewal, entirely new insurance methods, the right to use additional funds for research in new techniques and new materials might revitalize the FHA and improve both construction volume and standards of housing.

Public housing had the triple objective at the start of (1) creating employment; (2) creating good housing for families who happened to be living in slums because they were unable to pay rents which

would command minimum acceptable housing; and (3) eliminating slums, almost as a byproduct.

Provision of decent housing and of employment were considered more important than getting rid of slums. Even at the outset it was not made mandatory to replace demolished slum houses with new housing on the same site. But it was not found politically expedient at the start to use cleared slums for other than housing for displaced families. Families were to be rehoused and employment generated with slum elimination as an incidental but important byproduct.

A confusion of aims helped prevent public housing from becoming an important activity in most communities. Slum elimination in itself is very expensive. It became obvious at the start that rehousing could be provided much more favorably by selecting new building land in outlying sections than by buying heavily used land in the center of cities.

But the program never faced up to the fact that housing was but one aspect of urban life, and that land cleared of slum structures might be much better used for other than housing purposes.

Public housing was kept tied to slum clearance, but slum clearance was not made an integral part of city planning and development. The program became an expensive piecemeal operation. It was an operation which, even when aided with large Federal subsidies, applied to housing for underprivileged families, could not deal with the many factors causing general urban blight nor the factors causing economic distress and congestion in most American cities.

Public housing did not clear slums, nor did it provide neighborhoods that met American standards. It tended to provide ghetto communities for low- to middle-income groups and increasingly for minority groups. And it tended to provide high-density high-rise apartments with little or no private outdoor space. Projects tended to be large, standardized, monotonous, and institutional. They were designed as islands which turned their backs to surrounding neighborhoods, thus adding to their institutional appearance and nature and emphasizing the stigma attached to the charity that was being given the occupants.

The generalization that the number of families needing public housing is declining definitely does not apply to families of minority races—Puerto Ricans, Negroes, Mexicans, and others. The families of these races often are not able to get adequate housing in the private market and must rely heavily on public housing.

Public housing failed in general because it did not get at the cause of the difficulties it was designed to help. It failed in part because of the way the program was set up and in part because of the basic weakness in municipal governmental organization.

But in one important respect public housing has been helpful—that of aiding minorities. Even here public housing does not get at the reasons why minorities need aid. Public housing officials may be almost helpless to get at the reasons which make it impossible for many minority groups to get decent housing and so forces them to substandard properties. Municipal officials may want to enforce housing occupancy and building code ordinances and regulations, but find themselves frustrated by an inability to find decent housing for those living in quarters they would like to condemn.

Or municipal officials may find themselves prevented from condemning substandard properties or getting them raised to minimum standards by the political power of those earning high monetary returns from slum quarters.

If minorities had free access to decent housing, slum properties would be much less attractive to them and the return on slum properties would be much less attractive to owners.

Public housing, therefore, can alleviate but not solve the housing problems of minorities. It has not reduced slums and may not be able to unless and until the conditions which drive people to the slum and which make slum ownership attractive are reduced and possibly eliminated.

It is a palliative, but one which must be kept until all groups of the population, both racial and income, can have access to suitable quarters, particularly if it is to serve a high-employment economy.

Because public housing was not solving the problem, and because States and localities were not solving the problems, the Federal Government moved into the broader field of urban renewal. It is unfortunate that this had to occur, but it may be in inevitable development. If States cannot give their cities a fair opportunity to grow, these communities will turn to the Federal Government.

This is not a matter of party politics. The Vermont farmer outvotes a city worker just as effectively in Montpelier as does the farmer in Georgia when the ballots are counted in Atlanta. This is an economic matter. Rural counties and townships do not want to give up any rights and powers they have in the East or West or North or South.

So, metropolitan communities are left with mazes of jurisdictions—sometimes literally over a thousand jurisdictions to a metropolitan area. With all the maze of jurisdictions there is not enough power. But there is too much confusion.

The HHFA is moving into the vacuum, as something must. It is giving help for the development of long-range plans. This gives some hope that the help will not simply go down the drain. It is aiding in a metropolitan fashion, as distinguished from supporting would-be independent local jurisdictions.

This is a tremendously important problem. If the Federal Government does not move in, the cities may become almost hopelessly clogged and confused quagmires. Of the two alternatives, Federal intervention may offer the fewer evils and the more hope.

This is not basically a matter of fiscal relations. The problem goes much deeper. It is a matter of adapting basic governmental organizations to the growing urban nature of our economy. No matter how well we may build our houses, if our cities become quagmires, progress in housing becomes mythical.

The most important housing problem before the Federal Government, I submit, is what guidance it can give, and what it can do to encourage States and local governments to accept their responsibilities, and then, what residual responsibility the Federal Government should take. To the extent States and localities cannot move, and quickly, the Federal Government will be forced to move to fill the void.

For the future of this country is largely an urban and suburban future.

Representative MILLS. Thank you, Mr. Newcomb.

Our next panelist is Mr. Boris Shishkin, secretary, housing committee, American Federation of Labor and Congress of Industrial Organizations.

STATEMENT OF BORIS SHISHKIN, SECRETARY, HOUSING COMMITTEE, AMERICAN FEDERATION OF LABOR AND CONGRESS OF INDUSTRIAL ORGANIZATIONS

Mr. SHISHKIN. Thank you, Mr. Chairman.

Federal policy in the field of housing and urban redevelopment is off the track. Those responsible for the shaping and the execution of housing policy have ignored the basic objectives of both the Employment Act of 1946 and the Housing Act of 1949.

The goals of these two acts are mutually reinforcing. Maximum employment, production, and purchasing power would provide the wherewithal for families to obtain good housing. If the housing program were geared to enable every American family to obtain a decent home, the resulting high level of residential construction would contribute to total economic activity.

Housing and urban redevelopment policy today is badly misdirected. It is not aimed at the proper objective. It has been formulated and is being administered without regard to the basic housing needs of the American people. Indeed, the Federal Housing and Home Finance Administrator has maintained that housing needs are not his concern. This can only mean that housing programs and policies are conducted without regard to housing needs of the Nation.

It seems patent to us, however, that national housing policy must be geared to housing needs of the Nation. This year's rate of housing construction of less than 1 million units falls woefully short of meeting even minimum requirements. It is far less than in any year since 1949 and, on a per capita basis, only about 60 percent of the 1925 rate.

Even more important, current housing starts do not begin to measure up to known future needs. Best estimates indicate that even if during the 1960-70 decade residential construction activity is stepped up somewhat beyond present levels, over 17 million substandard units would still be occupied in 1970. In fact, only a housing construction rate of at least 2 million units a year will significantly reduce the number of substandard units in use.

In the light of the overall economic expansion we can confidently anticipate, there can be no doubt that the economy can easily support annual construction of 2 million houses a year.

However, a doubled rate of housing construction can be achieved only if a large volume of houses built are within the financial reach of low- and middle-income families. This will require a comprehensive housing and urban redevelopment program, major features of which are:

1. A large-scale, low-rent public housing program for low-income families.
2. Low-cost loans for cooperative, sales, and nonprofit rental housing for middle-income families.

3. A comprehensive slum-clearance and urban-redevelopment program to wipe out urban blight and facilitate general city rebuilding.

The Federal Government's direct outlay for housing and related programs is quite small and nowhere near as large as the figures shown in the Federal budget for expenditure authorizations for housing programs. In fact, actual permanent outlays in the fiscal 1958 budget amounted to only \$145 million for grants for the slum-clearance and public-housing programs. The other major housing and redevelopment items listed as expenditures in the Federal budget, amounting to nearly \$1.6 billion, represent reimbursable loans which, in the long run, mean revenue rather than outlay for the Federal Government.

Federal expenditures for the comprehensive housing and urban redevelopment program we are urging would still not loom very large either as a percent of total Federal expenditures or as a percentage of gross national product. Such a program might cost about \$1 billion a year on the average during the next 10 or 15 years.

This is certainly not too high a price to pay to assure American families the opportunity to obtain decent homes in good neighborhoods. The \$1 billion a year for housing compares with the \$3.6 billion a year the Federal Government will be spending under the new highway program.

The annual average expenditure of \$1 billion a year over the next 10 years might represent a maximum of 1¼ percent of total Federal expenditures.

Surely, by any relevant test, we find that we can well afford the housing and urban redevelopment program America so urgently needs. The frantic cries of inevitable mammoth Federal expenditures which are often raised when proposals are made for comprehensive housing and urban redevelopment programs must be recognized as irrelevant and diversionary.

Housing and redevelopment programs should be considered on their merits. There can be no doubt that we can afford to launch—indeed we cannot afford not to go forward with—the programs which will meet the Nation's housing needs.

For by meeting our housing and redevelopment requirements, we will also strengthen our economy and improve the living conditions of all Americans.

Representative MILLS. Thank you, Mr. Shishkin.

Mr. Leo Grebler, National Bureau of Economic Research, Inc., is absent today due to illness.

(Mr. Grebler's paper is as follows:)

SUMMARY OF STATEMENT OF DR. LEO GREBLER, NATIONAL BUREAU OF ECONOMIC RESEARCH

FISCAL IMPLICATIONS OF FEDERAL HOUSING PROGRAMS

The Federal-aid programs for housing and community development have a substantial impact on Federal spending. Because they reflect deep-seated forces in our society, as well as strong pressures of groups benefiting from them directly, any realistic projection of their fiscal impact can only be in one direction—up. And the increase in Federal spending is inevitable. Even if Congress should decide to approve no additional authorization, Federal loans, grants, and investments in the next few years would still rise sharply as a result of previous commitments.

Moreover, some of the programs in this sector are relatively new and are just now beginning to hit their stride. Programs initiated on a modest scale have

usually been expanded and liberalized. And their potentials in some cases are spectacular. We could probably spend \$650 million a year in Federal grants for urban renewal projects without running out of slums for 25 years. College housing loans may easily reach \$300 million a year in the near future and a total of \$4 billion within a decade. The holdings of the Federal National Mortgage Association may soon approximate \$4 to \$5 billion without any economic emergency such as the one that gave rise to the \$3 billion HOLC operation.

These growing demands on the Treasury should not be used as occasion for indiscriminate, across-the-board cuts of Federal spending in this sector. They rather call for more careful husbanding of Federal spending on housing and community development, and for a comprehensive and more rational approach to all Federal credit and grant program. The following steps are suggested:

1. Concentrate Federal funds on special high-priority programs, but avoid slipping into Federal spending simply to shelter housing generally from high or rising interest rates. Attempts to insulate housing generally from the competition for savings have been misplaced and ineffectual.

2. Discard the notion that a stable or rising volume of residential building is necessary under all circumstances in the short run to achieve satisfactory economic growth. Stabilization policies cannot be oriented toward stability or proportionate growth in individual economic sectors or industries, and they must attempt to reconcile occasional conflicts between the Federal Government's commitment to advance housing and its commitment to help maintain economic stability.

3. Review the housing programs, some of which were designed in the great depression or in anticipation of a major postwar slump, as to their place and functions in a high-level economy. This suggestion does not necessarily argue for curtailment but rather calls for fresh thinking. For example, instead of devising a better public housing program, we have allowed it to become hopelessly deadlocked in ideology. Instead of reexamining its ends and means, we have continued the 1937 program without comprehensive review of experience and have played the numbers game; that is, the ostensible issue nearly every year has been whether 35,000 public-housing units or some other number ought to be authorized. In the case of FHA mortgage insurance, there is great need of simplification as the abundance of special-purpose programs is in danger of "balkanizing" the FHA insurance system.

4. Undertake a thorough appraisal of Federal credit and grant programs in all fields so that Congress may obtain a comprehensive view of their longer run economic and fiscal impact and be in a better position for assigning priorities. Every one of these programs, of course, is carefully reviewed by appropriate congressional committees. But a more comprehensive across-the-board appraisal is necessary every few years.

5. Reduce the frequency of "omnibus" housing legislation, now usually enacted once a year. The present procedure creates continuous discontinuity, adds greatly to the uncertainties faced by hundreds of thousands of consumers, builders, mortgage lenders, and local public agencies, interferes with long-range planning, and complicates the administration of programs. The rules of the game are changed so often that disruption and poor performance are inevitable at both the national and local level.

Representative MILLS. Many of the preceding panelists have pointed out that one of the major difficulties in making decisions in Federal spending policy from the point of view of the Employment Act objectives, stems from the lack of an objective measure of the benefits provided by Federal activities. There is, therefore, no objective way in which the policymaker can measure the demand for such programs as compared with the demand for alternative products of the resources required.

It seems to me that the Federal Government's housing programs offer a pretty clear exception to this rule.

There is, after all, a market for housing through which consumers generally can register their preferences for housing as compared to other consumer goods, services, and even other investments.

I have always been at a loss to understand in this case what is meant by housing needs as distinguished, say, from clothing needs, automobile needs, or the needs of consumers for any other particular type of commodity or service. What is it that puts housing into this separate category?

Mr. BLANK. I might say I have asked this question myself many times, too. There are probably several answers that can be given to this, some of them rather superficial, but still, I think, fairly legitimate, one being the fact that there is already an expressed Federal policy that is distinct from clothing or automobiles or what have you.

Representative MILLS. There may be other expressed Federal policies without much substance. I was looking back of the expression to see if there is substance.

Mr. BLANK. I think part of the answer also goes back to the feeling, to several feelings, traditional in the area of housing; one being the feeling on the part of many people that this market operates inefficiently compared to other kinds of markets in the economy.

There are people who will maintain that this market does not satisfy the needs of the community in the way in which other industries have, over time.

A second aspect of this, or a related aspect, is that traditionally within the field of housing, students of housing have blamed a great many other social ills on evil housing. I myself have very strong doubts in this second area.

I think that we probably reached the stage in economic development where it is getting increasingly difficult to blame a great many social ills on housing as such.

I think as does one of the other panelists, Dr. Grebler, who unfortunately is not here today, that we might well be reaching the point in our development in which these other presumed ill effects of housing might well be handled directly, and we should not assume that merely building new housing is going to improve juvenile delinquency and similar social ills. Some of this ought to be handled directly.

If I may go on for one more moment, the first aspect of this is something that I have become somewhat, myself, concerned about, and that is the point I raised in my paper. That is, we seem to have in the house construction industry something inherent which prevents any substantial rate of growth of productivity out of which gains in our economy do come, basically.

There seems to be something inherent in the house construction industry which prevents this industry from increasing its productivity at rates which are comparable to other areas of the economy. We have seen this kind of phenomenon develop in the postwar period, right up to the present moment and it is something that I, myself, am very concerned about.

I am not at all convinced, however, that the answer is Federal expenditure. I think there are some very important ill effects which might well develop if, for example, we were to attempt to double, as has just been suggested, the current rate of housing starts.

I think that what would happen in all probability would be a rate of rise of new house prices, and of construction costs in other important social areas, in the areas of schools and hospitals, for example, which are also important claims upon the construction industry,

which would be of a magnitude which would far outweigh those we have experienced in the past decade.

To those people who have suffered through the buying of a house in the past 3 or 4 years, or who have worked on school boards and have watched the costs of school construction rise, I think this would be a very, very serious catastrophe.

Representative MILLS. Dr. Newcomb?

Mr. NEWCOMB. I should start off by saying I don't know the answer, either. I suspect part of the problem is statistical and part of it real.

Statistically, we are told we are adding about 1,030,000 units this year, but the census has issued a release saying we have been adding 25 percent more than the BLS has been reporting. Some of this difference can be explained by differences in definitions and coverage, which they are unable to measure in full. However, when all allowances are made, it is evident that the BLS housing starts figures are too low, even for what the BLS attempts to measure.

The problem is a technical one. The BLS has to depend largely on reports from building permit offices, and does not have the funds to check the adequacy of these reports. Furthermore, data from non-permit-issuing areas are obtained from a sample of places, and the sample should be revised continuously, but there is no money to do this.

In addition, it found that we have been fixing up housing, raising it from substandard to standard levels, at the rate of about a half a million units a year. That is, when it compared what it found in 1950 and what it found in December 1956, there appeared to be about 3 million more units in December 1956 that were standard and which were in existence in April of 1950, than there were in April of 1950.

That means that people have been fixing up their properties. That is a statistic which has not been getting into the record. So we have not known what we were building and we have not been able to know how fast we were improving the stock of houses we had to start with.

Being ignorant of the subject, the statistics coming out would indicate we are not building as fast as we should. So we have a statistical problem.

Tied in with that, I think is the fact that our conscience is growing as fast as our standard of living. What was considered very fine housing in 1900 may not be considered standard at all today.

As our standards rise, what we think we should do rises with it, and this makes a problem for us.

The other part which I think is real, may be divided into at least two sections. One is the cost of financing. If a large corporation wants to borrow money, it can borrow a million dollars at the market rate and at very good rates, considering, but if somebody wants to borrow \$10,000 to put up a house, the cost of making that \$10,000 mortgage may be bigger than the cost of arranging a million-dollar note.

So the overhead on the mortgage borrowing is fairly high. We do not have, yet, a device by which the capital needs of the individual for housing can be handled as effectively as the capital needs of society for larger corporate investments.

Secondly, the minorities can't get decent housing in many parts of the country—the Puerto Ricans in New York or the Mexicans in

Texas, have problems which are not necessarily cost of construction problems or cost of financing problems, but they are definitely housing problems.

To the extent that we have social difficulties interfering with the providing of housing, I think we have a real problem that we cannot laugh off.

Representative MILLS. Mr. Shishkin?

MR. SHISHKIN. Mr. Chairman, in attempting to define the housing need, I think we have to take into account first, the basic factors that are involved in it, and that is the need for availability to families, to people, of decent, safe, and sanitary housing.

That is, a shelter that is livable, which does not necessitate doubling up of families, which enables a family to live in a properly equipped shelter in which one can rear children and lead a decent life.

I think that in evaluating the need ahead, we ought to also take into account the very important fact that we are a dynamic economy, we are dynamic people, that we are people on the move.

The figures that are available on the recent migrations within the country, from one place to another, from one city to another, indicate that the future need will have to accommodate those migrations, those shifts in the population.

The Chicago Association of Commerce, for example, has made a study and a projection for the next 5 years, of the anticipated migration of people in order to meet employment needs, in order to meet the needs of the city growth in Chicago.

The big question that looms over that paper is when these people come in, where are they going to find a place to live?

So, provision has to be made for them. Also, we have a demographic problem, the problem of the population structure. "Demographic" is a nonpartisan word, I might say. But the problem there is that during and after the war, we had a bulge in our population structure in the increased marriage rate.

Those additional family formations that took place then have led to the additional birthrate, increased birthrate, since that time. Those are war babies. These war babies are growing up and within the next 3 or 4 years, they are going to be marrying themselves, and knocking on doors for new housing.

There is a bulge in our curve on family formations, and an anticipated bulge that is coming upon us. We will have to anticipate that need, which will be a greater insistence on proper shelter and new shelter for these newly formed families, and that has to be met before it becomes again a new crisis upon us.

I think also we have to take into account that housing, as in industry, does contribute more than any other single segment of the economy to the generation of demands elsewhere. I think that it is timely here and now to note for the benefit of the manufacturers of the consumer goods, that in equating various elements in the economy, one has to equate floor space with production of vacuum cleaners, that we are not going to sell vacuum cleaners unless there is additional floor-space that is coming.

That goes for other things, furniture and equipment that goes into the house. If we are going to keep the rate of growth in the future, we have to make sure that provision is made. The problem of the need

is not only the physical need, but also that of making housing available within the reach of the family, financial reach of the family, that needs that house.

Just dangling the housing accommodations within the grasp but not within the reach of the family does not meet the problem. So we now have to recognize the fact that we have a growing area of these so-called middle-income families, families who are not taken care of, or who are not eligible for public housing and those for whom the market does not provide the shelter which they are able, financially, to afford without cutting down on their food and other consumer needs.

Representative MILLS. Mr. Shiskin, I have a little difficulty in relating all that is said with respect to housing needs, to the factual situation involving some aspects of our various housing programs. What you say and what Dr. Newcomb says and what Dr. Blank says, one can accept for a variety of reasons including humanitarian reasons, as well as the other reasons.

However, we should bear in mind the fact that when we discuss housing, we are not talking solely in terms of programs developed for benefit of minorities or for those of low incomes who could not, perhaps, otherwise have adequate housing.

But our present housing programs support houses in the \$20,000 to \$50,000 bracket. I do not understand exactly how we can relate those to this standard of decent, healthy, and proper living standards that we talk about, and the solution of the problems of the minorities and the solution of the slum areas in the cities, and so on.

Is there real justification for including within our housing programs those aspects that presently exist that I have just referred to? How do we characterize it? How do we catalog that as a housing need?

That is what I am getting at.

Mr. NEWCOMB. I think we are caught in a nice dilemma here. The creation of FHA and the Home Loan Bank Board in the early 1930's tended to stop progress in State mortgage legislation. We do not have adequate State mortgaging legislation primarily because we have much better Federal legislation.

We have the problem of either bringing the State legislation up to par or moving ahead on a Federal basis.

Personally, I would prefer to have a private system that can be made to work through improved State legislation. But, if we can't get a good 80-percent mortgage on a \$20,000 house, or a 90-percent mortgage on a \$20,000 house, through State laws, we may be forced to say, "Either we are going to drop our housing standards or move to Federal financing or Federal insurance."

Representative MILLS. What I am getting at is the fact that we do now have these aspects within our programs. I am raising the question of whether or not we should continue to have them, or whether we should get back, really, to the fundamental purposes that you have all brought forth in your papers in justification of a housing need being in a separate category from any other type that I have mentioned, clothing and so on, justifying the Government becoming concerned and taking some part in it.

Can we justify these extremes of the present program on any ground? If we cannot, should we not insist that these extremes be elim-

inated from our housing and urban-development programs? That is what I am referring to.

Mr. NEWCOMB. The problem as I view it is somewhat different. Twenty-five years ago the Federal Government moved to aid housing through direct action. That was good for a depression economy. What we need for a high-employment economy is a mechanism which will permit the housing industry to compete for savings in the major capital markets. It should be able to borrow on a long-term basis on a large scale from pension funds and similar sources, and it should be able to make 90 percent loans without the aid of the Federal Government. Neither of these things can be done on an adequate basis today. If they were legally possible, the Federal Government could leave most of the house building and financing problems as such, without reference here to slum clearance or minority housing, to the market place. But until the Federal Government modifies its operations to accomplish this purpose, and encourages States to change their legislation to make this possible, home building and home financing will continue to depend on the Federal institutions.

The problem today flows from the fact that the market does not have an adequate system through which it can weigh houses against other goods on an equal basis in a time of high employment. When employment is slack and money easy, housing can compete for funds. We designed it that way in the thirties. We did not design it so housing can compete when money is tight.

When the FHA was set up, they sent salesmen all over the United States to persuade the legislatures in each of the 48 States to change mortgage legislation so as to make it possible for the FHA to operate.

If we were to do the same today, select housing policies adapted to a high-employment economy, get salesmen to promote the needed change in legislation in each of the 48 States so that private capital could flow freely to housing and make 90-percent loans safely, without FHA in other words—sell another program—we might be able to get the Federal Government out of a good deal of the responsibility which it now has.

Representative MILLS. What are the limits to the housing need that for any reason would justify Government doing something to correct or to assist? Can we on any basis—and I raise the question seeking information, solely—can we on any basis, justify including within the definition of what the Government will do to satisfy in this area the housing need, this category that I mentioned?

Is \$20,000 the limit? What is the limit?

Mr. SHISHKIN. Well, I just wanted to point out, Mr. Chairman, on that, that—

Representative MILLS. Pardon me just a moment. I want to be perfectly clear in the question I am raising.

We make a very commendatory argument for the Government stepping in to satisfy the need, a particular need, a need for housing, because of the necessity of assisting cities in the elimination of slums, because of the necessity of providing adequate health and living standards for people.

But, when we do that, do we carry out that purpose or any other purpose that has brought about the purchase of the program by the Congress in extending the program to these extremes?

Mr. SHISHKIN. Directly on your question, Mr. Chairman, it seems to me, to give you a direct answer on that, insofar as the aid to low-income families to reach decent shelter which otherwise they would not be able to do, I think that program is in the books and it needs to be continued.

But, beyond that, the program we propose for middle-income housing involves no direct Federal subsidy. It is based on the idea of changing the terms on which the housing will be available, the interest rate, the amortization period, and terms of that sort.

Representative MILLS. So it does not cost anything to the Government?

Mr. SHISHKIN. Well, not anything on a nonreimbursable basis. All of it will be on a reimbursable basis if that program is put into effect and operates. So that does not involve any direct outlay, but it is very much needed in order to open up this whole area of activity into which the private effort will be doubled.

Representative MILLS. I am trying to distinguish, because I think perhaps there is a distinction to be made with respect to some of this housing. How would you distinguish a housing need from a clothing need or a need that exists on the part of a consumer with respect to some other item?

When we get into the area of the low income, those of us who have a big heart can find some reason for making a distinction, perhaps. But when we get beyond that area, why does the Government have to step into this area any more than it should step into many other areas that it is not in?

That is the point that disturbs me.

Mr. SHISHKIN. Actually, the basic aim of the program we are proposing is to correct the deficiencies of the operation of the enterprise system which is now, because of the profit system, and because of the profit motive which is behind it, providing primarily new housing in the high-income bracket.

The bulk of the housing coming into the market is beyond the reach of the average American family. In order to bring it down within the reach of the average American family, if you change the terms by developing a program of that sort, and giving direction to it, you will still rely, primarily, on the private effort and private enterprise, but you will guide it into the area in which the greatest economic need is.

Representative MILLS. Mr. Blank?

Mr. BLANK. I think we ought to distinguish between the kinds of ways in which the Federal Government is involved in the housing market at the present time. There are some ways in which the Federal Government actually provides a subsidy for some one or other groups. This is a real cost to the Federal Government.

There are other ways in which the Federal Government merely provides facilitating machinery, essentially, on a no-cost basis.

The first kind of way in which the Federal Government enters into the housing scene is exemplified by the public housing program and the urban redevelopment program. Here there are actual out-of-pocket current costs, year by year, paid by the Federal Government.

Public housing, whatever its long-run benefits are, has not been a matter of great disagreement around this table. I think Dr. New-

comb strongly indicated why the Federal Government has gotten into the urban renewal area.

It is essentially because the municipalities, the urban areas of our country, basically find it easier to have relationships with the Federal Government than they do, in many cases, with State government, because of the political nature, construction, of our State governments.

The other kind of procedure, the other kind of way in which the Federal Government enters into the housing market, is this kind of facilitating machinery of which the FHA is the most striking example. Here, I would argue that what has been seen is that this market does not work as well as many other markets do, and that the establishment of this machinery, or, as Dr. Newcomb indicates, perhaps other kinds of machinery, but machinery outside of the housing and mortgage-loan field itself, with essentially no cost burden to the public, does provide substantial advantages in an area of great public interest. I think we have to keep these two things separate. I would not like to get, for example, FHA, whatever its defects may be, burdened with the blame of carrying a great deal of out-of-pocket cost year by year by the Federal Government.

\$150 million a year of direct expenditures by the Federal Government in the housing field today is in the areas of urban renewal and public housing, not in the mortgage insurance and guaranty field.

Representative MILLS. Let us look specifically at the distinction you draw and let us see. Would you say that FHA loan guaranties involve a subsidy or a real cost?

Mr. BLANK. This is a very hard question, may I say, but I, myself, do not think that FHA does involve any subsidy or real cost to the Federal Government. I think one can legitimately treat this as not involving any subsidy.

Representative MILLS. Does it involve the rechanneling of investable funds that would not be so channeled except for the Government program?

Mr. BLANK. I would argue yes.

Representative MILLS. All right. Is that not subsidy?

Mr. BLANK. I don't think one can charge that with being a monetary subsidy.

Representative MILLS. How do you rechannel investment by Government programs without some degree of subsidy being involved, if that rechannelization will not take place in the market place without the program?

Mr. NEWCOMB. If the FHA were set up as a private corporation, the same thing would be happening. It just so happens that the Government set up, but the private operator puts up the money.

The borrower puts up the money for insurance, so that the Treasury does not foot any of the bill.

Representative CURTIS. How about its required capital formation?

Representative MILLS. That is what we are getting at. What we are getting at is a consideration of those agencies of Government that we may not need or may not need in as great a degree if we have to increase our defense spending, some that we can cut back.

Are you saying that since this can be accomplished privately, that we do not need the FHA?

Mr. NEWCOMB. I said if it were a private corporation, we would have the same effect. It just so happens that the Federal Government

owns the Corporation, but the money comes from the borrowers. It does not come from the Treasury, just because the letterhead on the stationery has Government on it. It does not mean that the money comes from the Federal Treasury more than the money for the highway program, which comes entirely from excise taxes, comes from the Treasury. It so happens that the gasoline tax goes into a trust fund. We have not set up a trust fund here, but we could. It is an entirely separate operation.

Representative MILLS. Well, if this would work outside of the Government program, I wonder why we would not have a privately owned corporation to do this.

What is there about it that prevents it from being done in the private sector? Why is it that it is necessary to be done in the Government sector, if there is no subsidy involved?

Mr. NEWCOMB. It took an awfully long time to get it done this way. Technically, it could be done privately, but you would have a problem organizing the required corporations.

Representative MILLS. When I first came to Congress, I served on the committee that has jurisdiction over housing, and over slum clearance. I am not speaking as one opposed to the programs, but I am trying to reach some understanding of the use that these programs make of resources, and in the alternative, to determine whether or not there is any basis for believing that in these areas some cutback can be justified under the objectives of the Employment Act of economic growth and stability.

If these things can be done by the private sector, I would prefer that they be done by the private sector. If they cannot be done by the private sector, because it would take some subsidation to get things done, then, of course, if they are to be done, they have to be done by a Government agency.

I was wondering if, in fact, there was not a subsidy involved in the programs and that that might be the justification for continuation, as without it, it would not be done.

Mr. SHISHKIN. I was just going to say, Mr. Chairman, that it seems to me that in this type of insurance, there is actually no subsidation involved in it. But we have gone through the experience in which the guaranties by underwriting, on behalf of the United States, of these risks, in themselves provide the kind of a basis for confidence that makes possible the terms under which the FHA has been operating.

The same applies, the same principle applies, to the Federal Deposit Insurance Corporation, or any other area in which the Government does underwrite because nobody else has. Because the extent of its underwriting does establish the confidence in the local bank that would not be created if it were privately underwritten, if the economy goes through another big washout of this kind, nobody would have the same kind of confidence to meet that kind of a risk.

These are the risks involved. The record of the FHA has been very good, so far as defaults and so on. That has been proof that the underwriting by the Government has performed the underwriting sought, the function sought.

Representative MILLS. You give me something to stick my teeth into with that statement, but I would still not agree with you that there is not some degree of subsidy and real costs, perhaps.

Mr. BLANK. I suppose, really, the answer is that there is the fear that maybe under some extreme circumstance, there might have to be a subsidy.

This is really the element. There has not as yet been, and probably never will be. But if, in fact, we ever did go through another great depression, the person who is insured, the lender whose mortgage loan is insured, feels substantially more confident that under such circumstances the Federal Government will be solvent as compared to a private corporation being solvent.

May I go one step further? Let me pick up an idea that Dr. Newcomb suggested in his paper. I think it is entirely possible that you could substantially cut down on the degree to which FHA does get involved in the mortgage-loan market, in the construction market, by perhaps providing for some kinds of coinsurance feature on the mortgage loan.

Dr. Newcomb suggested that there might be some 5-, 10-, or 15-percent coinsurance feature that the lender would be liable in case of loss to that extent, to that percentage of the loss.

Today he is liable, essentially, to no loss unless you are counting some cost associated with foreclosure or something of that sort. Essentially, he is insured 100 percent. This differs from what I understand to be this new proposal that the FHA has come out with in the last week or so, the suggestion being there, as I understand it, that the FHA insure only the top 20 percent of the loan.

But I am very hard pressed to see how this is any great change, because I would think that except under the most extreme circumstances, the top 20 percent of the loan is the part of the loan that is going to bear the full loss and that the FHA will be responsible, essentially, for as much risk as it is now responsible for.

So whatever protection it now feels it must have, through examination of the property and so on, which is precisely the thing it wants to get away from, it would have to continue to have. There is not much more pressure on a lender when he is protected for the first 20 percent, it seems to me, than there is if he is protected for the top 100 percent.

On the other hand, a coinsurance feature would provide some incentive for the lender to worry about the degree of risk of his loan and would, I would think, at some level at least, be sufficient incentive to provide an opportunity for the FHA to reduce the amount of actual work it has to do on every individual loan application, the kind of work that I gather, is bothering lenders and builders and the FHA itself today. This is one way, perhaps, of backing halfway out the door.

Representative MILLS. If there is no further comment on the discussion up to this point, I will recognize Mr. Curtis.

Representative CURTIS. I would like to pick up on this particular point and ask whether maybe this is not an example of the Federal Government having moved into an area to solve a problem and even after it is solved, it fails to phase out.

Maybe in the beginning there was a possible subsidy because of a possible uneconomic insurance program. But having proven itself, that risk is practically nil.

Maybe this is an area where the Federal Government could phase out. If we are performing a function and it is economically sound, that is.

I think it is true in the FDIC. We phased out of the HOLC. We actually have gotten out of some things after we demonstrated they could be done. I think of an exercise, as I have described it, that the Congress just recently went through in regard to flood insurance. There we did not even get into it, but that would have been a type of exercise where private enterprise did not feel that this was an area that they could insure and the Federal Government, or some people, felt that once the economics was demonstrated, that then the Federal Government would phase out.

However, after getting into it, many people felt that they could not demonstrate it. There is one other thing I would like to say on the loan guaranties.

It seems to me that there really are subsidies, if you look at it this way: If the private sector performed that function, they would have to have capital formation in order to create this credit, or the confidence in the insurance program. For example, our life-insurance companies are in that form of insurance.

Well, it is insurance and a guaranty that these things will come out even. It just seems to me that if the Federal Government, whether they do it through a trust fund in the highway program or whether they do it with a series of guaranties, as some of these programs do, every time we put the Government's credit behind a program, we are, to a degree, taxing the total amount of credit our Government has. And this is what I am coming to. We get to a point where the Federal Government's credit is extended greatly through that form and also through its own outstanding securities. That combined with deficit financing provides the basis for inflation.

Inflation, in turn, creates bad economic damage in the housing field or any other field, for that matter. In fact, it seems to me that a great many of the problems that face our economy today are the result of the financing of World War II through inflation.

So it seems to me, that even though it is a small area, you might say, it does put a burden on the Federal Government's credit. To that extent, it is a subsidy.

If I might direct my attention to the papers a little bit, I was quite disturbed to find, I think in all the papers, an assumption that because the Federal Government has moved into this area, that therefore, the Federal Government should remain in the area.

Part of this examination, I thought, was to look in to see whether or not this is an area that the Federal Government profitably should remain in. So far as the fact that we are in it is concerned, I do not regard that as much of an argument, particularly as we have not been in it long enough to say that it is traditional in any sense of the word.

I might suggest that the Congress' actions over a period of the past few years indicate a real question of how much the Congress expects the Federal Government to remain in it, in the way that they handled some of the appropriations for public housing.

I might say that to me an interesting thing is the failure of the Congress—incidentally, over my objections—to increase interest rates in the VA program in effect has produced the situation where we phased out of that kind of home lending.

The second test that was suggested, and I can understand it, are the social needs. It seems to me in testing those there are some economic guidelines. I think Mr. Shishkin suggested some of them.

Of course, there are the family formations that we can anticipate, but also equally important are the family splittings that have occurred, which can be tested by the number of people going to make up a family per dwelling.

Some people have argued that if you have that rate lower, the individual welfare of the community is raised. That may be. It used to be, though, in most families there was an old grandmother, a great-uncle, something like that, who was part of the family circle. That is beginning to disappear.

Whether that is socially beneficial or not, I do not know, but it seems to me it is in that area we also have to examine.

One other area of testing social needs is what is the difference between homeownership and renting. Many people have expressed to me, particularly lower income families, that homeownership raises their standard of living more than any single thing that anybody could do for them. If that is a test, should we not be looking to be sure that our programs encourage homeownership as opposed to rental property?

Incidentally, our tax structure actually benefits the homeowners; but, on the other hand, it does not benefit those of the lower income groups who use the short-form tax return, because they take a lump sum for their taxes and interest payments, the 10 percent. But maybe through a device there, the emphasis on homeownership might be affected.

Sanitation and building codes and so forth, which have been called attention to—and those are local things—seem to me to be more at the base of the social problems than anything I can think of. That is, I suppose, a political problem partly, but the political problem could be corrected to a large degree through education.

Then, there is a third factor mentioned: the cost test. I was disturbed, incidentally, when Mr. Blank, I believe it was, advanced the theory that we have had very little increase in productivity in the housing field. The question I would like to ask you, Mr. Blank, on that runs along these lines:

Our cost-of-living index that the Department of Labor presents does not reflect increased quality. We tend to forget that what is by terminology a house in 1940 may be an entirely improved product in 1957.

An automobile may be and so may be all of these other things. It strikes me that the quality of a house that you can get today, particularly for your lower income groups, has changed. I know houses that are selling in St. Louis, Mo., at around \$14,000 or \$15,000, that are completely air-conditioned and that have garbage disposals. That is part of the house, too. The cost of maintenance due to the development of materials has changed. Insulation, cutting the fuel costs, has been improved. It seems to me we have a tremendous increase in productivity in the housing industry in the area of quality.

Maybe it has not reflected it in the cost per unit, but what you get, the unit itself, has so improved in quality that I think we must recognize that there has been considerable productivity increase there.

Now that I have said that, I would like to give you a chance to comment on it.

Mr. BLANK. I would not disagree at all that there are a great many more appliances, a great deal more equipment, in the house of today

than there was 10, 20, or 50 years ago. We are continually adding to the amount of equipment that the typical homeowner thinks is necessary in the running of his house.

I would still feel very strongly, though, that the cost of constructing the house, the amount of productivity increase that we have experienced in the last 10, 20, or 50 years in constructing the house itself, has been very minimal.

I was struck, just before this meeting while I was leafing through this compendium, with another paper, I guess to be given at some days from now, by Roger Freeman, entitled, "Public Works, Fond Hopes, and Harsh Realities," in which he discusses almost exactly this same question and is worried about the problem from another standpoint.

I mentioned earlier that the effect upon construction costs of increases in expenditures on houses, expenditures by the Federal Government on housing, would be reflected not only in housing itself, but in allied fields. What he is concerned about is what has happened to costs in public works areas, schools, hospitals, and so on.

He was worried about exactly the same problem. I might quote one or two sentences from his paper, if I may:

While no accurate devices are available for measuring changes in productivity, crude measures suggest that productivity increased considerably more in manufacturing than in construction.

Then, to go on a little bit:

Within construction itself, the productivity seems to have increased more substantially in engineering work than in building construction.

One last sentence, and this language, I might add, is his and not mine:

What has been said in another field problem also applies here. Labor and management buried the hatchet, in the consumers' skull.

The point I have been trying to make clear in my presentation, and by no means the only important point in this field, but which has bothered me continuously, is that I think there are problems in this field, and I think there are things that the Federal Government can and probably should do to improve the efficiency of this mechanism, but I do not think the answer is just necessarily spending more money. I think there are other things.

Spending more money, among other things, is just going to raise prices a lot more. This will hurt a lot of people as well as help a lot of people. I think the same thing applies to financial gimmicks. I do not think that merely lending money at lower interest rates, by virtue of using the Federal credit, is virtually the answer, because I think this will end up the same way in very good part.

We talked about this in the 1930's and very little was done about it, but I think we have a period of maybe a half of a decade now, in which we have a breathing spell, and there ought to be attention paid to what we are going to do in the early 1960's, when we are going to have to be building—and probably will be building—1½ million houses a year.

I don't think the answer is for the Federal Government to start subsidizing with an open hand. On the second point, I am reminded of the problems that the Connecticut State program has gotten into. After the war, the Connecticut State problem, as I understand it, did some direct lending to veterans for housing. This was on a very

low interest rate, because the State of Connecticut borrowed the money short-term, and charged, I think, a half percent for servicing of the loan, and loaned this money to the veterans.

This, of course, was a very fine opportunity for a veteran to buy a house because the combined cost to the borrower was very low. But, of course, interest rates have gone up a great deal since that time. The State of Connecticut is now faced with a problem of continually refinancing at a higher and higher interest rate, loans that were made to veterans at very low interest rates, and they are having a great deal of trouble.

I only raise this to indicate that it does not seem to me that the answer in this area is either a lot of Government spending or, necessarily, some financial gimmicks. I think we have to go into what is really the heart of the problem.

Representative MILLS. Would the gentleman yield for just a moment?

Representative CURTIS. If I may make a comment, first, I believe it is along the line.

When you mentioned the interest rate going up, that is what I was trying to suggest. If we overload the credit of the Federal Government, through guaranty, and other things, and so on, that is exactly what we are going to do. That is a form, in my opinion, of inflation. That would cause this great dislocation.

Representative MILLS. I was about to observe to you, Dr. Blank, that you were giving an example of what I referred to a little while ago as subsidy.

Mr. NEWCOMB. That does not hold with the FHA at all, because the FHA does not appear. The insurance company makes the loan and the FHA takes a half percent from the borrower. The Federal Government does not get into that.

Representative MILLS. You are looking at it strictly from the viewpoint of a subsidy as a Government outlay. I consider it to be a subsidy when we attract through this device resources into a program that would not otherwise go there on the basis of the signals of the market place.

Mr. NEWCOMB. May I suggest something?

Representative MILLS. It amounts to a subsidy.

Mr. NEWCOMB. Now I get your point. I would think it is entirely the reverse. This does not add or subtract one iota the amount of capital flowing into the economy. It helps direct the amount of capital flowing into the economy.

Representative MILLS. It directs it. That is the whole point.

Mr. NEWCOMB. That is right. We have a tight situation as we had last year—

Representative MILLS. You direct it from higher productivity, in all probability, to lower productivity.

Mr. NEWCOMB. No; I think not. When Ford borrowed \$400 million last fall, they got it at 4 percent. But if 40,000 home builders want to borrow \$10,000 each, totaling \$400 million, the overhead cost of making these 40,000 loans would be such that they would have to pay about 6 percent.

What happened as a result of this situation was that Ford when into the market place when the cost of machinery was very high, dumped another \$400 million into the area in which prices were rising. The

home builder, who would have bought brick, lumber, and things on which prices were falling, could not dump that \$400 million in.

The price of lumber continued to fall, the price of machinery and equipment continued to rise. We added to inflation by not allowing free flow of funds to housing, which had a surplus of material and labor, but providing additional funds for machinery and equipment for which there was a shortage of capacity at the time.

Representative CURTIS. You might have had a surplus in some materials, but certainly not in steel and cement, which are still pretty basic in the housing industry.

Mr. NEWCOMB. The amount of steel used per dollar in housing is much lower than the amount of steel used per dollar going for equipment. Ford's \$400 million took a lot more steel than home builders would have taken if the \$400 million had gone there.

I think this malfunctioning of the system added to the inflation on both sides of the market.

Representative CURTIS. Did you want to comment?

Mr. SHISHKIN. Actually, if I may comment, Mr. Congressman, you asked the question as to whether we should encourage this or whether we should encourage that. I would like to take a broader look at the context of your question in November 1957, in the light of the basic objectives of the Employment Act of 1946 and the Housing Act of 1949.

It seems to me that right now we have to recognize the fact that we are in a situation in which we are in the backwash of capital investment. In 1956 and 1957 we have had an abnormally high rate of capital investment going into productivity facilities. A \$35 billion annual rate was reached in March 1956, and it went up from there to the \$37 billion a year rate.

We have this productive capacity now under construction, now being put in place. The lead time is somewhere around 2 years, but the first impact of that is going to be next year. As we are headed into next year, we are going to have this new productive capacity actually going into production, producing things will be running out of our ears because this production will mean new technology, automation going into it.

It is not going to absorb proportionately the employment that would be absorbed in it because of this factor, and we are going to have some problems of maladjustment resulting from it. There is an imbalance.

Here is the subcommittee of the Joint Committee on Economic Report, created by the Employment Act of 1946, and down the street is the Council of Economic Advisers. There is great imbalance, a basic imbalance in our economy that has been before us for 2 years.

I have not heard a word of that imbalance, and have not heard a word of warning breathed to somebody like William McChesney or somebody else in Government, who was actually responsible for setting the terms on our monetary policy and anticipating the type of actions that will be necessary in order to maintain stable growth, and assure stability.

That has not been done. We are now facing the consequences of that. I do not think we are in for a depression in the year 1958; I don't. I don't think it will be a major catastrophic dislocation, but I think we are headed for a ringer. I think unemployment before the

second quarter of next year is completed will probably rise to a rate of some five to six million, which is a very serious problem as the Secretary of Labor has indicated in his statement.

If the rate of unemployment reaches somewhere around 7½ percent of the labor force, or 8 percent of the labor force, we have to, under the terms of the act, think of the kind of encouragement there in the broader sense that needs to be given in order to meet that problem and in order to assure the stability.

I think when we are talking in those terms, there we have to really put it in broader context of what is the essential strength of America, and that is in its economy. And if the strength is going to be maintained, we have to think of the types of actions that will assure growth and the basic element of that growth is provision of encouragement for more housing in order to meet the national need.

Representative MILLS. At that point Mr. Shishkin, you are presenting public housing as a countercyclical device to be used to offset the slowdown that is occurring?

Mr. SHISHKIN. No. What I suggested before, and I would reiterate, is that as far as public housing is concerned, I think it has to be maintained and preserved. I think in addition we have to take steps to encourage the development of a middle-income housing program that will bring the housing within the reach of the average family and, thereby, provide incentives for greater activity in that field.

Representative CURTIS. Might I comment at this point, because throughout all these panel discussions, and through the papers, there is a fundamental difference that I see in the interpretation of the philosophy of the Employment Act. I don't believe anyone disagrees with the objectives of the Employment Act, or the objectives as you have stated them. But the issue, as I visualize it, and the Employment Act is so drawn that that issue is not resolved, is how do you reach these results. There are people like myself who just don't happen to think that the best way to get these results is through these Federal programs. Maybe that is right and maybe it is wrong. But I want to get into the economics of this thing to find out.

Sir, if your economics are wrong, you are going to be regarded—you shouldn't be, but they will accuse you of being—as calloused to these problems. I don't think that the Federal Reserve Board is calloused to these problems. I furthermore think this, that they are just as interested in the objectives of the Employment Act as anyone, and the disagreement lies in interpretation of economic facts.

In getting into that, that is the area we want to discuss. That is what at least I am trying to do here, to find out whether that is or is not.

I agree with what I believe is in your paper, that it was a mistake to cut back on the home-building program. I said it at the time, and I have reiterated it. But the argument was it was difficult through the Federal Reserve at any rate to distinguish between areas of investment capital, where the problem may be, to distinguish them. I thought there were other techniques. I have already suggested that I thought the Congress made a mistake in the VA and FHA interest programs. There is where I put the brunt, really, of the housing difficulties.

The interesting thing to me, in looking at the housing starts, is that almost the entire cutback in housing starts were in the Federal

sector of the housing industry, and the private sector remained almost intact. That would indicate that in the VA and FHA programs, which were essentially financing, and techniques of financing, lay the trouble. I wish we could get into the economics of these problems and lay off the business of who is interested in the people the most, because I think we all are. One function this committee, I believe, can serve, is to find out whether the economic analysis that you make, and I respect your point, is accurate. It could be, even though I don't think it is. It certainly could be. My economic analysis could be wrong. I believe we are both interested in the objectives of the Employment Act. I wish people would read that over again.

There is no language in there that says that the Federal Government has to function through direct programs or otherwise.

If I may, for a moment, I would like to make one other comment. We know that the Federal Government is going to go into a lot of programs for social reasons as well as others. When they go into those programs, they are bound to have some economic effects on the other sectors of the economy. It is the same way in the tax field. We tax here and we are bound to produce an economic effect, even though our motive is solely revenue. There are those of us, and I am one of them, who believe that as the Federal Government utilizes its tax program and expenditure program, it should try to minimize the economic result. But we know that it is going to be there.

We also feel that we should utilize those programs as best we can to further this idea of growth and stability and employment. There is another school of thought which actually wants to use the tax structure to deliberately and affirmatively promote economic and social results, not just for revenue. There are those who want to use the Federal expenditure program deliberately to produce these economic results, such as those who want to go into various public works programs at a particular time.

It almost gets back to a fundamental philosophy—in fact, it does—of government. The only way I know to prove to me I am wrong is to get into the economics of each of these programs as we go along and see. I am willing to be converted.

Having made a speech, I wonder if I could go on with the specific question I was going to ask.

Mr. SHISHKIN. I wanted to make it clear that I did not accuse Governor Martin or the Federal Reserve Board of being callous. I don't think it is their business to administer the terms of the Employment Act. But it certainly is the business of the Council of Economic Advisers and of the joint committee to provide danger signals. I think the only thing I want to accuse Governor Martin and the Federal Reserve Board of is perhaps stepping through a few signals. That, perhaps, is because the signals were not given to him along the track. The Council's job was to say, "Here is a big imbalance. That has to be evened out." And to point that out and to emphasize it.

Representative CURTIS. Even now I question the imbalance I predicted, incidentally, 3 months ago in a public speech that we would see an end to inflation as we were talking of it, because my analysis of inflation, this last, was not the cost-push thing that everyone was talking about, but rather a traditional inflation if we looked upon

investment capital as a commodity, where there was a greater demand than there was a supply.

Once I began to see that that was easing off, and I regret to say it primarily eased off in the cutback on demand—I would have much preferred to see it ease off through an increase of supply. When that occurred it seemed to me we were going to see an end to that. If that analysis of inflation was correct, and the other thing that we call inflation, the cost-of-living increases, were largely in the fact that the cost-of-living index does not measure increased standard of living or the products, if that analysis is right, then your analysis isn't right. The two do not go together.

I may be wrong, yet I submit that maybe you could be wrong. It is a question of arguing those economics. You say there is a great imbalance. Many people do not see that. If it is there, certainly we want to look at it. But there are some people who do not see it.

Mr. SHISHKIN. I wish I were wrong, but I think that the facts point to the contrary.

Representative CURTIS. If I may, I wanted to inquire a little bit on this productivity thing a little more in the housing industry, in construction. I wonder if we separated industrial and institutional construction, and also high-cost housing, and tried to look to see this low-cost housing—this is the homeownership type, not rental—in those areas, with these tremendous subdivisions going up of two and three thousand homes, what the fact would be.

I am certain that the economics would demonstrate a tremendous increase in productivity in that segment of home building. I wonder if you wished to comment.

Mr. BLANK. I remember a comment that Mr. Levitt made a year or two or three ago in reference to his large subdivisions, than which there are probably no larger.

As I understood it, he said that he did not enjoy a cost advantage of as much as 10 percent over a small builder in the neighborhood who built more than 5 or 10 homes a year.

There is another study, Sherman Maisel's study, of the San Francisco Bay area, which suggests again that a very large builder, as large as builders come, enjoy cost advantages of not as much as 10 percent. I would be the last to deny the virtue of a 10-percent cost advantage, but I think the differences are relatively small. I really think that what has happened, and I am not sure that I know the answer to this problem, as I think it would take a lot more work and perhaps a lot abler minds than mine, what has happened is simply that wages have gone up in this field more than elsewhere and have been less than elsewhere matched by increases in productivity. As a consequence, the cost of the finished product has just zoomed. Why is it that Mr. Shishkin is worried about middle-income families losing out? What was the cause of a middle-income family, which I presume 10 years ago was able to buy a house, not being able now to buy a house?

The price has gone out of reach. What has happened is that the price of housing has increased faster than income in the last decade. I think this is true in addition to the fact that they were building bigger and better houses today.

Representative CURTIS. Do the statistics bear that out with the increase in homeownership, percentagewise, that is constantly going up?

Mr. BLANK. Well, there is no question but that there seems to be an innate desire on the part of the average American, myself included, to own a home. Granted the financial opportunity, I think a lot of people have cut their budgets very hard. The people who have bought new homes in the last 5 or 6 years, that is.

I think what we have had in the last half decade or so is another kind of imbalance, in which people living in prewar homes and rent-controlled apartments—they still exist in New York—have been able to reduce the proportion, substantially reduce the proportion of their budgets devoted to housing, while others who have come on to the scene who have been required to get into postwar construction, rental or homeownership, have actually chosen to appropriate a very large proportion of their budget to housing.

Representative CURTIS. Mr. Newcomb?

Mr. NEWCOMB. The Bureau of Public Roads sometime ago made a study of what their costs would have been if reported on the same basis as housing costs. Housing costs are reported on an index of what the items going into the houses cost. Public Roads found that their costs, if calculated in the same way, would have been reported as about double what they are.

In other words, their productivity has about doubled in the last 15 years. But in housing all we know is that it costs so much for lumber, so much for nails, so much for sheathing, and so on, and so much for labor. But I think you are absolutely right, productivity is increasing. The motives for it are there. Even if the small man who builds only 10 or 50 houses a year saves \$100 on each house, he increases his profit by \$1,000 for each 10 houses he builds. It is to his interest to save. Consequently, instead of using the 1 by 4 inch sheathing he used to put up, he uses a 4 by 10 foot sheathing board of some sort.

In other words, the productivity of that carpenter has gone way up. It is the same way on his flooring. He can use plywood for his sub-flooring. While I can't say that the productivity has doubled in a house building—I am sure it has not—it has risen.

There is a sort of useful index in the nonresidential field. If you take the Dodge figures on cost per square foot of industrial construction, you will find it is going down and not up in some areas, because the engineer and the architect have been told to save money. So they specify more effectively.

Some time ago for the Council of Economic Advisers, I brought together a group of the best engineer-architects-builders that we could get, and we sat down with the problem. The engineers said we are designing much more effectively. Instead of putting in a 4-by-10 for the rafter, for instance, as they used to do, they are now using 2-by-4 and even 1-by-6. That is literal. When that work was originally done we asked several engineers how to design rafters for a house that would have a span of 20 feet, out of 2-by-4's. We were told it couldn't be done. We went to an airplane plant and got an engineer from that plant. He designed it for us. Now it is accepted practice to use 1-by-4's and 2-by-4's. No one would think of using the old 2-by-10.

That is an illustration, but I think it does point up your point that actual prices to buyers are not going up as much as the indexes might suggest.

Representative CURTIS. Thank you. I can see it is an area where we need some statistics, additional statistics.

Mr. NEWCOMB. I believe so.

Representative CURTIS. A fourth aspect, I believe, is the financing. It seemed from the points made in the papers, or some of them, that a tremendous advancement was made when we went to installment paying on home buying, from this business of lump sum which existed in the 1920's. The Federal Government helped there, through the Federal savings and loan program, but it phased out, to a large degree. It seems to me a very similar forward step was taken in home financing when we went to lower down payments. Having proven that point to a degree, it would seem to me we might phase out. But I am going to add another point where I am a little unorthodox. It seems to me that we could, and do it with good, sound financing, go to even lower down payments in home ownership. I say it for some very basic reasons:

No. 1, when a house becomes a home, it increases in value. I think everyone knows that. It is quite the contrary to an automobile. When you drive it off the dealer's floor, that decreases in value, but a home increases. That bears, I might say, on your suggestion that the increase in buying of families in other areas, of appliances, and so forth. I would suggest that almost the bulk of that is home ownership and not people who are in rental homes. I think it would bear some investigation there to see if there isn't a correlation between the home owners as opposed to people who rent, which goes back to my emphasis on home ownership. But aside from that one financial aspect, your security actually increases in value, as a family makes a home out of it. So I would also say this, the danger that the lender has of the family not paying off in hard times, on that point one thing we know is that housing is a part of anyone's budget, whether they are on relief or what.

The amount of housing you get for a monthly payment is considerably more than the equivalent dollars in rent. I think I have seen some statistics on that, to the extent that it will lend itself to statistics which show that you do get a lot more housing per monthly payment than you do per rental payment. That, too, lends to the security of investment in this area.

I might say there is a byproduct to all this which should be something the Federal Government might want to promote in the sense that I would like to see things promoted. It encourages savings through home ownership. So because of those three factors, it is my judgment that if it is necessary for the Federal Government to do a little pioneering, which I am not adverse to at all, in the area of further lowering the downpayments for homes, I would be very glad to do that.

I would like to see some more economic analysis and study of these three points, because I may be wrong on them, but that is the kind of a way in which I would like to move ahead. If we did that, I think we would be promoting both growth and stability and accomplishing the point that you make Mr. Shishkin, if you are right, that we are going to need a stimulus in the housing industry in the future.

Mr. NEWCOMB. I think the economics will support that completely. I did a study some time ago for the lumber dealers which indicated people moving in without any downpayments in short time had done enough work on their place so that they had big equities. Ninety-eight percent of the American families are honest anyway. They will pay whether they have any equity or not. I think most people are discovering that people are honest.

Representative CURTIS. I thank you.

Mr. BLANK. I think there is another aspect. I might say, however, "Amen" to the comment just passed. I agree fully that there would be, probably, very little more financial risk to a further lowering of downpayments. I really think the problem we are going to face in the near term future is not whether we should lower the governmentally determined minimum downpayment, but, rather, the way in which we can insure that loans will actually be made at those downpayments.

Clearly there is no law saying a lender has to lend at that level. Agreeing with Mr. Shishkin about the virtues of housing as a counter-cyclical stabilizer in the very near term future, as I do, I think the next step—I assume the next step will be a reversal—a more profound reversal of the credit policy of the Federal Reserve.

If we follow the history of the 1953-54 period, one would then expect to find lenders moving back into this field as they did in that time. This will really be the crucial question. How one handles it, I don't know; but I think before we worry about lowering further FHA minimum downpayments, we ought to make darn sure that we are getting down to them in fact as well as in theory.

Representative CURTIS. That they will actually make them?

Mr. BLANK. Yes.

Representative CURTIS. Like the VA, even when they were using points, that was the only way you could get your VA loans but then even points went by the board, and there was no VA lending at all.

Let me ask this: I am trying to think through that statement, that even though the Federal Government would permit lower downpayments, of course the private investor is not required to go that far.

From a practical standpoint, why doesn't he? You say he might not. He always has, hasn't he?

Mr. BLANK. I don't think in the recent past he has been down to the FHA limits.

Representative CURTIS. I will tell you what I am basing it on. It is a very limited experience, but I have been director of a savings and loan association for many years. We seem to lend up to the limit all the time. We are regarded as a pretty conservative outfit.

Mr. NEWCOMB. How high do you lend when you lend to the hilt?

Representative CURTIS. What?

Mr. BLANK. How big a mortgage do you make? Ninety percent?

Representative CURTIS. No, we don't make 90 percent. Could we?

Mr. NEWCOMB. In some States.

Representative CURTIS. Missouri is my State.

Mr. NEWCOMB. In Iowa you can loan 100 percent, if you want to. I am not sure about Missouri.

Representative CURTIS. No. We are limited. That may be the difference that I didn't realize, that the States might have some bearing on that limitation.

Mr. NEWCOMB. That was my original point. I think we need to do more to bring State legislation up to date rather than Federal.

Representative CURTIS. I see your point. Yes. I hadn't realized that that bore on it. However, it does.

Representative MILLS. Mr. Shishkin, I don't know whether I understood you properly a moment ago, or correctly a moment ago. You were talking about the imbalance, the fact that the President's economic advisers had not called attention to it, and you also said that the Joint Economic Committee had not called attention to the danger signals. Is that what you said?

Mr. SHISHKIN. Well, I didn't put it in the accusative case, Mr. Chairman.

Representative MILLS. I thought you had. That was the reason I raised the question. I was going to put you on the mailing list of the Joint Economic Committee, and give you some back issues of some of the reports filed in March and June and October of this year if you had not read those reports, because I think you would clearly understand, after reading them, that we had pointed to certain danger signals about the imbalance which you referred to.

Mr. SHISHKIN. I have read them. If I may, Mr. Chairman, I would just like to put it, to recap what I said, in the general context of the task with which you are charged here now.

Now everybody is talking, and certainly Congress is concerned, about the relative merit of the particular obligations the Government will assume for particular types of action. We are talking about defense. Labor, of course, is very deeply concerned in the national defense, and all the necessary things that go with it. But we are equally concerned in other programs that are necessary for our defense. We have military defense, we have civil defense, we have economic defense.

In the segment of economic defense, I think that there are now bipartisan voices that have been raised in behalf of a realistic approach to this very difficult problem. About 10 days ago, Governor Harri-man made a very notable speech in Rochester in which he pointed out the need for us to pay heed to economic strength because the attack on the American economy is, of course, a more fundamental one.

Vice President Nixon talked along the same lines the day before yesterday in his also very important statement, making the same point. It seems to me that the point here to consider, by the joint committee, is that at this time it is important for us, in this particular area, to see to it that the actions that are taken, and the policies that are framed, will not let down our economic defenses in the most crucial and vital area, to the American economy, which is shelter, that there we should not cut unreasonably. We should maintain the responsibilities that we have assumed in the past, and, whatever decision may be made in the future, that is a policy question to be studied and explored in the future. But this is not the time for us to cut. We have to maintain the programs that we have, and we have to enlarge upon them in order to maintain economic stability in the months ahead.

Representative MILLS. Mr. Shishkin, you have answered the question that I intended to ask with my last question, and that is the priority which Congress should assign to the housing programs. If

we are to witness, over the period of the next few years, increasing outlays for defense, and they pose inflation threats, or they pose the necessity for raising debt, or additional taxes, if we do not cut back in some other Federal spending programs, what you say is that we should attach a rather high priority to our housing program and not cut it back if it is necessary, in the opinion of the Congress, to cut back some Federal spending programs. That is what you are saying?

Mr. SHISHKIN. That is correct.

Representative MILLS. Mr. Newcomb, would you take the same view with respect to housing, that it should be given this high degree of priority by Congress?

Mr. NEWCOMB. I think I would let the people decide, not the Congress. I do think that the institutions by which the people make their decisions are inadequate and, therefore, they don't have an equal opportunity to vote for housing as against automobiles. Ford can get money easily and the home builder can't. I would try to make it so that the family can decide whether or not it wants better housing or a new automobile.

Representative MILLS. You would leave it to the signals in the market place?

Mr. NEWCOMB. Yes, except that I would like to improve the financing structure so that it is just as easy for the builder to tap financially the market place, as it is for the corporation to tap the market place. That is not true today. We are not giving them an equal chance. I would like the market place to settle the under-an-equal-opportunity basis.

Representative MILLS. Dr. Blank?

Mr. BLANK. I think I join in those sentiments, except to say that there is, in fact, an economy of scale involved here that there is not much we can do about. I think we can improve our financing structure, and, to that extent, I also would vote for the market place. I do not think that a decision on the part of the Federal Government to hold fast in this area necessarily should hold a higher priority than other areas. I think there are areas that might be cut in this general area. We have not discussed urban redevelopment, for example, which, I think, might possibly be an area we might cut into, if we have to cut into this general area, where we might cut in first.

Representative MILLS. I was coming to that next. Would you agree, with respect to urban development, that we might possibly, as you were suggesting, Mr. Shishkin, have here an inability of the consumer to purchase. Maybe that inability comes from a question of "druthers," if he would "druther" have an automobile than he would a home. If that is so, then we are in some difficulties. You could continue to promote, from a Federal Government standpoint, but, if they would still prefer to have that extra automobile or whatever it is they want to buy, I don't know what we are going to do about that?

Mr. SHISHKIN. I think every family should have a car, but also should have a garage to put it in, which goes with their house.

Representative CURTIS. But they don't. Wouldn't you agree with me that the buying habits of the public in that regard are pretty strange sometimes? You see some Cadillacs parked in front of some pretty strange homes.

Mr. SHISHKIN. Even I, as an economist, will leave that to the market place.

Representative CURTIS. I would, too.

Representative MILLS. Mr. Grebler's statement will appear at the appropriate place. He did send it to us. We regret very much that he was unable to be with us today. We regret exceedingly the circumstances that prevented his appearance.

Gentlemen, we appreciate so much your papers in the compendium, your presence today, and the information you have given the subcommittee. Thank you.

Without objection, the subcommittee stands adjourned until 10 o'clock in the morning in this room.

(Whereupon, at 3:47 p. m., the subcommittee recessed, to reconvene at 10 a. m., Tuesday, November 26, 1957.)

FEDERAL EXPENDITURE POLICY FOR ECONOMIC GROWTH AND STABILITY

TUESDAY, NOVEMBER 26, 1957

CONGRESS OF THE UNITED STATES,
SUBCOMMITTEE ON FISCAL POLICY
OF THE JOINT ECONOMIC COMMITTEE,
Washington, D. C.

The subcommittee met at 10 a. m. pursuant to recess, in the Old Supreme Court Chamber of the Capitol Building, Representative Wilbur D. Mills (chairman of the subcommittee) presiding.

Present: Representative Wilbur D. Mills; Representative Thomas B. Curtis.

Also present: John W. Lehman, acting executive director, Norman B. Ture, staff economist.

Representative MILLS. The subcommittee will please come to order.

Today the Subcommittee on Fiscal Policy continues its inquiry into Federal expenditure policy for economic growth and stability by turning to Federal expenditures for the development of human resources.

Previous panels have stressed the importance of strong and expanding efforts to improve our standards and achievements in education, health, research and manpower utilization—as requisites for economic growth and as basic underpinnings for a sustained defense effort in a world of rapidly advancing technology.

Our concern here is with the organization of these efforts and the proper role of the Federal Government in this respect.

Each panelist will be given 5 minutes in which to summarize his paper. We will proceed in the order in which the papers appear in the compendium, and we will hear from each panelist without interruption. Upon completion of the opening statements, the subcommittee will question the panelists for the balance of the session.

This part of the session in preceding panels has been informal and we hope it will be equally so today. All members of the panel should feel free to participate, commenting on papers presented by other panelists, answering subcommittee members' questions, and raising questions of their own.

The first statement will be given by Dr. Howard R. Bowen, president of Grinnell College.

Dr. Bowen, you are recognized for 5 minutes.

STATEMENT OF HOWARD R. BOWEN, PRESIDENT; AND JOHN C. DAWSON, ASSISTANT PROFESSOR OF ECONOMICS, GRINNELL COLLEGE

Mr. Bowen. Mr. Chairman, I have with me Mr. John C. Dawson, a colleague at Grinnell, who collaborated with me in the preparation of this paper. Had we prepared our paper after the launching of the satellite, we might have said a few things more pointedly. But we said essentially the same thing as we would have said had we known about that event.

People constitute the greatest national resource of this country. The economic growth of the country depends primarily upon the development of our people, and, therefore, education is one of the most basic elements in economic growth.

We believe that this is so, not only because education imparts skills and specific aptitude for particular vocations, but also because education affects people's incentives, their motives, their ability to plan, and their emancipation from custom and from superstition.

We also believe that as our country develops technologically, an increasing proportion of our people require higher education.

As we have examined the coming numbers of young people to be educated at the levels of higher education and considered the task that lies ahead if this economy is to grow, we believe that the total expenditures for higher education will have to increase by 2 or 3 times over the next 15 years.

Present expenditures for higher education are about \$3.6 billion, and we think they may have to rise to as much as \$10 billion over the next 10 years simply to keep the present level of quality in higher education.

This figure corresponds to the statement made by the President's Committee on Education Beyond the High School to the effect that expenditures for higher education would have to triple. But the problem is: Where will this money come from?

Those of us who are engaged in education, either in State institutions or private institutions, do not now see sources of revenue sufficient to triple present expenditures. Many of us feel that it may be necessary for the Federal Government to enter this field more significantly than it has in the past.

Mr. Dawson and I view this prospect with some concern. We are strongly opposed to Federal control of our institutions of higher education, so we have indicated some ways in which Federal funds might flow to institutions of higher education with the minimal risk of Federal control or domination of these institutions. We think, for example, that Federal aid should not be granted directly by the Federal Government to institutions, but should be granted through a corporation or an intermediary institution that would be controlled by a group of citizens who are appointed as a board of trustees to administer Federal funds.

We think that aid should not discriminate between public and private institutions. We think that the private and public institutions each have their role in our educational system and that any Federal aid should be available to both.

We believe that aid should not discriminate among academic fields. We particularly mention that, because of the enormous amount of publicity concerning education in science and mathematics. We are indeed in favor of greater education in science and mathematics, but we believe that the kind of education needed for the development of this country must go beyond science and mathematics.

There are many other things that are needed for the intellectual, cultural, and economic development of the country beyond these fields.

To take care of the many students to be expected in the next 10 or 20 years, totally new educational institutions will be required and we think that these should not be discriminated against if aid is given.

In general, we think that aid should be based upon minimal standards of cost, and that institutions should, of course, be encouraged to go beyond whatever the Federal Government might give them in developing quality and in pioneering in new programs.

(Mr. Bowen's prepared statement is as follows:)

EDUCATION AND ECONOMIC GROWTH

Summary of a paper submitted by Howard R. Bowen, president, and John C. Dawson, assistant professor of economics, Grinnell College

The future economic progress of the United States, or of any other country, depends fundamentally upon the advancement of education both in quality and quantity. Economic growth is influenced by many factors, but ultimately and largely, it is a product of the education of people.

From the economic point of view, education is a form of investment. No other investment promises so great a return in national productivity.

High productivity and an educated labor force go hand in hand. Comparisons of the economic advancement of various countries where resources are similar but level of education different support this relation. We note the parallel development of education and of the economy in the U. S. S. R.. In the United States the average income of individuals, which is related to their productivity, varies directly with their education.

Partly, the explanation for the relation between education and productivity lies in the impact of education on the skills of the labor force. But perhaps the most profound effect is upon people's aspirations and motives. Education instills the desire, the discipline, the imagination, and the resourcefulness required for progress both of the individual and the Nation.

At this stage in the history of the United States, the need for persons with higher education is particularly acute from the standpoint of economic growth. Among the reasons for the rapidly increasing demand for highly educated persons are the increased use of automatic machinery, the increased size and complexity of the business firm, the increased communication activity required to articulate the specialized parts of the economy, the increased scope of Government, the increased role of scientific research, and, finally, the increased demands for goods and services produced by the highly educated. These increased or changing educational needs of our country, when combined with the high birth-rate starting in the 1940's, explain why there will shortly be an acute crisis in higher education—a huge demand for education confronting the limited supply of educational facilities.

Taking into account future enrollments and rising costs, we have estimated that expenditures for higher education must be more than doubled—perhaps tripled—by 1970, if higher education in this country is to carry on without serious deterioration. We shall need to spend perhaps \$10 billion for higher education as compared with the present \$3.6 billion. It seems unlikely that funds of this magnitude can be derived from the traditional sources available to our colleges.

Because we are so closely dependent upon higher education for the future growth and development of our country, the financial problem is one of grave national concern, a subject for national policies.

This does not mean that higher education can wisely be placed under Federal jurisdiction and responsibility. Our educational system is a diverse one with many types of institutions, a system characterized by a strong competitive spirit, a willingness to experiment, and a drive to excel. Further, our independent colleges and universities are a bulwark of freedom of speech and thought. But since the Federal Government is in the best position to raise the large sums of money required, we face this dilemma: How can higher education be financed by the Federal Government without imposing centralized Federal control and without threatening the traditional autonomy, diversity, and freedom of higher education?

Should the time come when Federal help is needed to solve the financial problem of higher education, careful attention should be given to selecting those forms of aid that will not undermine the autonomy and freedom of our colleges and universities. As examples we cite Federal scholarships on the plan of the successful national merit scholarship program and Federal loans or grants to provide housing and academic facilities to accommodate increased enrollments. As guides to planning the form of any aid we suggest the following principles:

1. Federal aid should not be granted directly to colleges and universities but through intermediary nonprofit corporations controlled by boards of trustees consisting of distinguished citizens.
2. Aid should not discriminate between public and private institutions.
3. Aid should not discriminate among academic fields.
4. Aid should be available to bona fide new institutions.
5. The amount of aid should be based on bare minimal standards of cost, encouraging each institution to raise funds needed for exceeding minimal standards.
6. The aid should carry a minimum of conditions regarding the internal operations of the recipient institutions.

We are opposed to centralized control over our colleges and universities and we are reluctant to suggest greater Federal aid to higher education. But the dangers to our country and the growth of our economy are infinitely greater if higher education is swamped or stagnates through neglect than if the Federal Government contributes financially through mechanisms involving arm's-length relationships with the colleges and universities.

Representative MILLS. Thank you, Dr. Bowen.

Do you have anything you would like to add, Professor Dawson, to the statement made by Dr. Bowen?

Mr. DAWSON. No, sir.

Representative MILLS. Our next panelist is Dr. W. Glenn Campbell, American Enterprise Association.

STATEMENT OF W. GLENN CAMPBELL, DIRECTOR OF RESEARCH, AMERICAN ENTERPRISE ASSOCIATION

Mr. CAMPBELL. Thank you, Mr. Chairman.

Representative MILLS. Before you proceed, let me announce to each panelist that your entire statement will appear in the record in case you desire to summarize the printed summary.

You may proceed.

Mr. CAMPBELL. The main points of my paper may be summarized as follows:

1. Government social welfare expenditures today are about 5 times their 1935 level, and amounted to \$34.5 billion in 1956. Federal funds supplied 42 percent of the total, State and local funds the remaining 58 percent.

2. But, of equal if not greater significance for the long run is the remarkable growth pattern of private welfare activities during the past decade and the tangible evidence indicating the continuation of the upward trend in the private sector.

3. Some 15 million persons are currently covered by private pension plans, whereas in 1940 the comparable figure was only 3.7 million.

Total employer-employee contributions to private pension and welfare plans equaled some \$8.5 billion in 1956 as compared to about \$0.5 billion in 1940.

Reserves of private pension plans amount to some \$30 billion at the present time. They are growing at a rate of \$3 billion a year and are estimated to total \$80 billion by 1975. This is a figure which is several times the present size of the OASI trust fund.

It seems clear that future benefits paid out under private programs roughly parallel to the Federal OASI program will be much larger relatively than at present. This is significant not only for fiscal reasons but also because it is a development that is in accordance with American traditions of individual responsibility and self-reliance.

One way to encourage this desirable trend would be to have Congress authorize self-employed individuals to deduct from taxable income amounts set aside for retirement purposes within reasonable limits.

4. As Mr. Folsom, the Secretary of Health, Education, and Welfare, has so ably pointed out, voluntary health insurance has had a phenomenal growth since World War II and it appears certain that the next several years will see many more advances. Today at least two-thirds of the American people have voluntary hospital expense protection and yet, until very recently many persons were asserting that two-thirds of the population could not afford private health insurance.

Other forms of health insurance are growing at rates greatly in excess of the population growth rate, with the rapid growth of major medical expense protection being particularly noteworthy. Currently, concern seems to be centering on the special medical problems of the aged, but even here encouraging progress is being made via the voluntary route and there are good reasons for concluding that the problem of limited health insurance coverage of older persons is largely a temporary one.

5. In view of the foregoing facts, among others, one must question seriously whether the benefit levels under the old-age and survivors insurance system or the taxable wage base should be increased at the present time.

Similarly, in the field of providing health services for elderly persons Congress should give the insurance industry and the medical profession a chance to work this problem out through traditional methods rather than institute a costly compulsory system with all of its attendant damage to the effective practice of medicine.

6. It is now clear that basically our social-security system is one under which today's working population pays taxes to provide benefits to retired persons and survivor beneficiaries; i. e., we can no longer increase benefits without corresponding tax increases on today's working population. Every increase in the social-security tax makes it that much more difficult for a working person to provide for his own and his family's health and retirement needs.

7. Since OASI coverage is now virtually universal, it is time to gradually reduce the role of the National Government in the old-age assistance field. Two promising approaches would be either to adopt a policy of not making Federal old-age assistance grants available to new double beneficiaries or to simply eliminate Federal old-age assist-

ance grants for individuals who are also receiving Federal OASI benefits.

In either case the result would be to make the Federal old-age assistance program in fact—as it is already in theory—a temporary one which would gradually disappear.

8. A record percentage of our population is going through formalized education. Education ranks second only to national defense as an item of public expenditure in the United States. Contrary to the frequently heard assertions that education is being starved for funds, we find that the increase in public-education expenditures during the past 4 years has exceeded half the total increase in all governmental expenditures in the United States.

9. Education has fared well under State and local responsibility despite the fact that the ability of States and localities to channel more funds into education has been adversely affected by the vast Federal tax and debt burden. Enrollment in public institutions has multiplied 2.2 times since the turn of the century. But expenditures for public education have multiplied 17 times in constant dollars.

Expenditures for public education have risen from 1.5 percent of the national income in 1902 to 4.4 percent in 1956. When private expenditures for education are included, the latter figure becomes 5.5 percent. This record compares favorably with that of other countries, including those where the major part of the cost of education is borne by the National Government.

10. Education has been doing much better, financially and staffwise, under State and local responsibility than most of the other public services, many of which receive Federal subsidies. The staff-student ratio in public educational institutions declined from 1:20 to 1:15, between 1940 and 1956.

The number of teachers, and particularly of fully certificated teachers, has been rising much more rapidly than the labor force. School construction has outpaced other civil public-works construction. In every recent year more classrooms have been constructed than needed to accommodate the increase in enrollment.

11. Despite the great progress that has been made in meeting the financial problems of public education—progress for which the educational community may rightly feel proud—the situation is still far from perfect. Among the adverse factors are the excess burden of Federal taxes, the continuing promise of Federal school aid which has caused some communities to postpone building plans in the hope of being able to get their schools for 50 cents on the dollar, and the fear of being forced to integrate newly built schools.

12. Further pursuit of proposals for Federal school aid are likely to work to the detriment of education. Amounts of \$300 million to \$400 million a year, as suggested in recent legislation, are small in relation to the total of some \$13 billion which is being spent by States and localities and only one-third of the \$1 billion annual rate of increase in State and local school expenditures. If Federal aid amounted to several billions a year, as many advocate, we can be sure that Federal control of education would follow before long.

13. Some of the existing Federal grant programs for educational purposes could be gradually reduced and eliminated. These include the nondefense part of vocational education and the cash-grant part of the school lunch and milk programs.

14. The situation in the fields of social security and education, though capable of improvement and in need of continuing analysis and evaluation if goals are to be attained on the most efficient basis consistent with American traditions, warrants neither complacency nor alarm. Changes should be made only after careful assessment, based on facts; the worst thing we could do would be to stampede into action on the basis of undigested data and largely extraneous foreign developments.

Representative MILLS. Our next panelist is Prof. Wilbur J. Cohen, School of Social Work, University of Michigan.

Professor Cohen, you are recognized for 5 minutes.

STATEMENT OF WILBUR J. COHEN, PROFESSOR OF PUBLIC WELFARE ADMINISTRATION, SCHOOL OF SOCIAL WORK, UNIVERSITY OF MICHIGAN

Mr. COHEN. The main points in my paper, Mr. Chairman, may be summarized as follows:

Total expenditures, public and private, for health, education, and welfare in the United States will probably exceed \$55 billion for the fiscal year 1957, equivalent to about 13 percent of the gross national product.

Based upon later statistics, I would say they will probably approach closer to \$60 billion when the final figures are in and approaching 14 percent of the gross national product.

This is an impressive and significant measure of the importance which the United States places upon human values. Too frequently, the goals and objectives of our economic, political, and social institutions have been evaluated or advertised solely in terms of materialistic accomplishments to our disadvantage both home and abroad. The goals of maximum employment, production, and purchasing power are means to a larger and more important objective—the promotion of the general welfare and the maximum development of the capacities and creativeness of the individual and strengthening of family life.

In order to fill existing gaps and to meet the needs created by the explosive population growth ahead, a substantial dollar increase in expenditures for health, education, and welfare will be required. Some of the additional funds will come directly from the consumer (for instance in medical care), some from private sources (private pension, health and welfare funds and services), and a major portion from public sources (primarily for education, health services, and social security).

My own studies indicate the “needed” annual expenditures, public and private, by about 1965, at present prices, may be in the neighborhood of \$75 billion to \$85 billion.

This would require an increase (from all sources, public and private) of about \$20 billion to \$30 billion annually above the level of existing expenditures.

But, with a \$575 billion gross national product in 1965, such expenditures would still only approach 13 to 15 percent of the gross national product—a realistic and practical level—perhaps even on the low side.

Assuming that this goal is an attainable objective from an economic point of view, the major policy question is, How can we proceed to develop the necessary fiscal and social policies and modifications of existing arrangements which will make it possible to reach this objective in an evolutionary manner consistent with other national goals and values?

In my full paper, 11 factors are listed which make for continued increase in expenditures for these 3 types of services (health, education, and welfare); some of the difficult problems, such as the need for more trained personnel, and policy questions, such as helping the States to equalize their fiscal resources to meet these services, particularly low-income States, are posed, which we must grapple with more effectively if we are to overcome the difficulties involved in expanding our services to meet our growing needs.

I point out the need for developing more effective national policies and priorities for assuring "socially necessary" expenditures for the general welfare in the competition in the market place, for our available resources, manpower, and income.

With this objective in mind, I strongly endorse the Federal-State cooperative grant-in-aid system of health, education, and welfare we have developed over many years in this country.

This approach enables us to achieve overall national objectives with decentralized administrative responsibility and with wide latitude for adjustment of many details to special circumstances. I urge we strengthen and broaden this system, rather than weaken or dismantle it as has been suggested in some quarters.

In particular, some specific suggestions are made for expanding our existing Federal grant programs for health, education, public assistance and child welfare, in order to meet pressing social needs. Among other specific proposals which are suggested are:

1. An effective area redevelopment program to alleviate unemployment in surplus labor-market areas.
2. Improvement in State unemployment insurance benefits and workmen's accident compensation laws through Federal incentives.
3. Appropriations to carry out the legislation enacted by Congress in 1956 to provide research grants to discover ways to minimize dependency and to train qualified workers in public assistance. This is particularly for next year.
4. Continuation and broadening of the Hill-Burton hospital-construction program and provision for Federal aid for medical education.
5. Congressional study of ways to eliminate barriers to group practice in medical care in order to provide more and better medical care at a reasonable rate.
6. Further intensive study of the causes and cures of low incomes by the Joint Economic Committee continuing the excellent studies and recommendations made by the two previous Sparkman subcommittees.
7. Establishment of a National Commission on Current and Future Policies and Trends, which would study this whole field much more intensively.
8. A reexamination of tax policies to encourage contributory insurance programs, particularly for the self-employed.
9. Federal legislation requiring registration and disclosure of information concerning private pension and welfare funds.

I also point out that both old-age insurance and old-age assistance payments are inadequate in many respects and will need to be increased.

The average money income from all sources, public and private, of the nonworking aged person was probably around \$1,300 in 1954. I suggest, as an objective, a 25-percent increase in their average total income, public and private, by 1960 and a 50-percent increase by 1965.

This would involve increased income from private-pension plans, savings, and, particularly, from social security. As an immediate step, an increase of approximately 10 percent in OASDI benefits and a roughly comparable increase in the Federal matching maximum in old-age assistance from \$60 to \$66 on an average basis is suggested, as well as other changes in the provisions of both programs.

With respect to the social-security system, I suggest for early consideration by the Congress:

1. Increasing the benefit level about 10 percent by increasing the benefit formula across the board. Benefits would be increased for the 11 million present beneficiaries as well as for persons coming on the roll in the future.

2. Increasing the maximum taxable wage base for contributions and benefits from \$4,200 annually to at least \$6,600.

3. Providing for hospitalization insurance coverage for OASDI beneficiaries.

4. Providing for the payment from the insurance system of rehabilitation costs of disabled persons.

5. Financing the additional costs by increased payroll contributions of one-half of 1 percent on the employees, an equal amount on the employers, and three-quarters of 1 percent on the self-employed.

Such a program would be financially and actuarially sound and would aid, in the long run, in minimizing the need for additional Federal, State, and local expenditures out of general revenues for public assistance, medical care, and vocational rehabilitation.

In discussing some of the financing issues involved in social security, I point out that, contrary to some recent articles, the Congress has seen to it that the social-security system is on a financially sound long-run basis and remains so.

A number of proposals are explored which would result in a more flexible retirement program, such as providing for increased social-security benefits for persons who work after the normal retirement age.

Representative MILLS. Thank you.

Our next panelist is Mr. Arthur F. Corey, State executive secretary, California Teachers Association.

STATEMENT OF ARTHUR F. COREY, STATE EXECUTIVE SECRETARY, CALIFORNIA TEACHERS ASSOCIATION

Mr. COREY. Mr. Chairman and members of the committee, the subtle relationships between the educational level of a people and their general welfare have long been recognized by statesmen, economists, and sociologists. It is not necessary to discuss them point by point. They have been covered in other papers concerned with the national defense. I occasionally will use my own State as an illustration.

Education has significant impact for the national defense. Even the lowest ranks in modern armies need an educational background higher than that enjoyed by many of our people. Results of the research project carried on by Columbia University on the effects of lack of education during World War II point out that the rejection rate for selectees from the 12 States spending the least amount per student on education, was 7 times the rate for the 12 States spending the highest amount.

The indirect effects of education upon national defense in the training of technical and scientific personnel may be even more serious. It has been pointed out that probably fewer than one-quarter of our brightest students actually complete an education to enable them to fill important technical and scientific posts.

The development of an understanding for all citizens of what America stands for is also an educational job because good citizenship does not just happen.

Education is directly related to productivity, and economic welfare in a highly developed industrial society is unusually dependent upon it. Increased productivity on the job is only one of the benefits derived from schooling. At least equally important is the increased economic stability that results from an increased economic literacy. Education also stimulates consumption.

Social dislocation accompanies economic dislocation. A detailed study of the costs of correcting social and economic dislocation in the St. Paul area discovered that 1 family in 16 costs society as much as the same services for the other 15 combined.

Education is a national enterprise. California has an added average of 1,400 residents each day who were American citizens the day before but not Californians. Population mobility is not a problem peculiar to California. From March 1955 through March 1956 over 5 million Americans moved into a new State.

All States were affected. Mobility affects both pupils and teachers. In California, for instance, nearly half of the new teachers each year have been trained by other States. Some provision has been made under Public Law 874 for helping States and their subdivisions to meet the educational needs arising from the existence of Federal installations. However, aid is based upon the number of children definitely traceable to these installations. The actual impact is much greater.

Education is financed by a national economy. A change in Federal policy on any program of major influence affects the educational facilities of the States. The anticipated accelerated interstate highway program is an example. The present tight-money policy has increased the interest school districts must pay on bonds for new buildings.

In 1954, 2.8 percent of the gross national product was expended upon public education, and total tax collections for that year were equal to 23.6 percent, making revenues for the public schools 9.3 percent of total tax collections. But in this same year school revenues formed 43.6 percent of local tax collections and 26.5 percent of State collections.

The amount expended by the Federal Government on public education has never exceeded 1 percent of its tax revenue. In 1954 it was 0.3 percent. The financial crisis in American education is not due to

the inability of the economy to carry the load, but to the defects in the mechanism for taxing wealth produced by the economy.

There is great inequality among the States in the limitations of State and local taxing powers in supporting public education. One cause is the variation in the ratios of taxable wealth to the children to be educated.

However, the major differences are due to the workings of our economic system. For instance, Delaware is first in income payments per child not because of the natural wealth of the State, but because it is the home of many large corporations.

We have had many warnings of our educational shortcomings by prominent educators and lay citizens. Walter Lippmann, in his address to the fifth annual dinner of the National Citizens Commission for the Public Schools, stated that our educational effort—what we think we can afford, what we think we can do, and how we feel we are entitled to treat our schools and teachers—is in approximately the same position as was this country before Pearl Harbor. The educator's view is that the future of the Nation is so closely connected with what happens in our public-school system that the Federal Government cannot permit itself to be unmoved by what is taking place, nor to be bound by attitudes and viewpoints which may at an earlier time have been merely provincial or dilatory, but in today's fast-moving world are genuinely threatening.

Only within the past quarter century have schools approached being generally available to all youth through the secondary grades to ages 17 or 18. However, at the beginning of this portentous expansion social and economic events of the 1930's seriously threatened its progress.

The decline in the birthrate led many to believe there was no justification for educational planning much beyond already existing facilities. This tendency continued until 1941. World War II needs of manpower and production left no resources for supplying the altered civilian role. Until 1948 less was spent each year on school construction than had been spent in 1930.

To compound the school problem, our procreative habits reversed, and we returned to the high birthrates of the prosperous years of the 1920's.

One dramatic example is in California, where the record may be summarized as follows:

Ninety years, 1849-1940, passed before 1 million children were enrolled in the public schools. The enrollment of the second million took only 13 years, 1940-53. The third million will be enrolled in 5 years, 1953-58. It is estimated that by 1965 there will be no fewer than 4 million pupils in the public schools.

California sees no decline in its remarkable and painful growth, at least half of which may be accounted for by "outsiders." When classes opened for 1957-58 there were 183,000 more pupils than had been enrolled in 1956-57. The financial effort to meet this crisis is equally dramatic.

I am pointing this out simply to show that the States are making an effort. Since 1949 the citizens have voted \$630 million of general-obligation bonds for lending supplemental funds in excess of district bonding capacity.

The districts themselves will have expended a total of \$800 million of local revenues for capital outlay. The addition of nearly 1.9 million pupils foreseen by 1970 will call for a California effort totaling over \$3 billion at current building costs.

Besides the estimated 4,550 new teachers to care for added pupils in 1957-58, there will be needed 10,440 replacements to replace the teachers who will leave for one reason or another.

On the total national scene there is no less a crisis. One national survey using 1959-60 as the target year, accumulated a total need for 476,000 classrooms and related facilities to cost approximately \$16 billion at prevailing 1954 prices.

Of this total the districts reported that almost \$7 billion was beyond their existing fiscal capacity, although a portion of the deficit could be overcome by better district organization. Forty-one States participating in the White House Conference survey said that they were steadily losing ground in the race to provide enough classrooms.

In the matter of the shortage of teachers, largely parallel to the shortages of trained persons in all fields requiring a good education, and mainly caused by the low birthrates of the 1930's, the White House Conference summed up a total annual need of about 85,000 elementary teachers with a backlog of about 80,000. There is a continuing annual need of 125,000 public elementary and high-school teachers combined.

This paper has been silent on the major issue of quality in education by dint of great restraint. The recent study of the New York State Educational Conference Board has come as close to proving the case for high educational expenditures as our know-how in this field will presently allow.

These studies found positive evidence that schools ranking highest in mastery of essential skills, the fundamentals, usually have the most comprehensive programs for attaining the other important elementary-school objectives. Such schools often use many or all of more than 100 practices not frequently found in schools ranking lowest in the mastery of essential skills.

Good schools will spend money for the factors that in the long run mean good education. Class sizes will be no larger than to enable the teacher to do what a teacher is trained to do. The teacher will be fully prepared to fulfill his role as a professional practitioner of education.

The educational shortage is a money shortage. The White House Conference on Education concluded in 1956 that public-school expenditures should be approximately doubled. This would point to the desirability of an increase of about \$10 billion.

That is, it would have, in 1956. It would be more than that now. Any attempt to itemize the need becomes even more frightening. It will probably cost more than \$20 billion during the next 10 years to provide housing for the expected increase of a minimum of 12 million students.

When this is added to an accumulated need of \$10 billion, we get a total of \$30 billion for capital outlay alone. Teachers' salaries over this period must be raised by at least 75 percent and other current-expense cost will increase proportionately. These facts indicate that the cost of public education must be considerably more than doubled in the next 10 years if we are to meet the challenge.

If such increases are to be borne by local and State tax sources, the outlook is, indeed, frightening. Local contributions would have to be doubled and State subsidies practically tripled. Apparently, no one familiar with taxation and government thinks this kind of program either probable or possible. Even if it could be accomplished it would still leave tremendous inequalities and many States would even under this increased revenue still be unequal to the task.

Even though the Federal Government spends a great deal of money on activities called education, these efforts are so fragmented and uncoordinated that they make no real impact on the overall problems faced by public education generally.

The Federal Government provides only about 3 percent of the revenue available to the public schools. Nevertheless, all the evidence available about the nature of the income of the people, the comparative ability of the States and communities, and the importance of education to the general and economic welfare would seem to indicate that the Federal Government should participate significantly in the financing of the public schools.

Granting that State finance structures can be perfected and strengthened and that local tax revenues will increase with the expanding economy there will in the next 10 years be left a gap of from \$5 billion to \$7 billion per year in imperative school costs which can only be met through Federal subsidy.

This blunt statement may be shocking to some. However, the Russian satellite should also shock us out of our complacency. In the days ahead either we educate our children or we perish. This is a national problem and the wealth of the Nation should be utilized as fairly and scientifically as possible to meet it. This can be done only through substantial Federal participation.

Representative MILLS. Thank you, Mr. Corey.

Our next panelist is Mrs. Katherine Ellickson, assistant director, social-security department, American Federation of Labor and Congress of Industrial Organizations.

Mrs. Ellickson, you are recognized.

STATEMENT OF MRS. KATHERINE ELLICKSON, ASSISTANT DIRECTOR, DEPARTMENT OF SOCIAL SECURITY, AFL-CIO

Mrs. ELLICKSON. It is tragic for our Nation to skimp on expenditures for the people's welfare under the mistaken impression that they would be too expensive. Actually, many such outlays result in economic growth that more than offsets the cost.

This is true because the combined skills of the American people determine the rate of economic expansion just as surely as do accumulated capital, technology, and natural wealth. Federal appropriations for health, education, and welfare should therefore, be considered not primarily as expense items, but as investments likely to bring large economic returns.

To facilitate such consideration, current Federal outlays for the development of human resources are grouped in five major classes, taking into account the source of funds, the purposes to be served, and the degree of economic return that may be expected.

I attempted to get current data, Mr. Chairman, on the current outlays for each of these classes. The figures presented here intended to

show, not what we have done in the past, but what we are doing today, in the current fiscal year.

Estimated Federal outlays in fiscal year 1958 for each class are as follows:

	<i>Billion</i>
Class I. Social insurance for the general population and railroad workers, financed by special contributions.....	\$ 8.8
Class II. Arising from the Federal Government's role as an employer, past and present. (This includes \$0.6 billion each for civilian employees and military personnel and \$5 billion for veterans)	6.2
Class III. From general funds, with substantial economic return.....	1.9
Class IV. For minimum human needs, regardless of return.....	1.3
Class V. To enhance available earnings opportunities.....	0.1

The total of \$18.3 billion equals 22 percent of all Federal outlays but only 4 percent of gross national product (table 2).

The third class of expenditures—from general funds, with a substantial economic return—includes many of the programs of Federal grants-in-aid which are now under attack; namely, those providing for health research and health services, \$0.6 billion; education, \$0.3 billion; rehabilitation, \$0.05 billion; aid to dependent children, \$0.5 billion; school lunches and surplus food, \$0.3 billion; and public housing, \$0.1 billion.

The Federal outlay for this class, \$1.9 billion, is only 2 percent of all Federal expenditures and four-tenths of 1 percent of gross national product.

This is a very small amount. In fact, the amounts were reduced after the appropriations had been passed by an administration ruling, I believe, by the Budget Bureau, asking agencies to reduce their outlays for health and other services below the amounts indicated.

May I add that yesterday, President Meany issued a release indicating that just through eliminating special tax privileges, \$5 billion more could be collected this year in taxes, a sum more than twice the total expenditure for these very important programs.

These programs help individuals to function more constructively as well as more happily. They will produce more and earn more, enhancing national product and Government revenues.

The need for such programs is shown by the continuing waste of human resources. Since 1950 more than 1.5 million young men, or one-third of all registrants, were found disqualified for Selective Service. Our cities and country areas are marred by slums which tend to perpetuate poverty and personal maladjustments. One-sixth of the Nation's families had incomes under \$2,000 in 1956.

To permit better evaluation of the degree to which the United States are developing, or wasting, our human resources, the Joint Economic Committees could usefully initiate a set of measures of human well-being. These might be included annually in Economic Indicators, the valuable monthly publication of the committee.

The following are illustrations of the type of measures that should prove constructive:

Death rates at various ages.

Birth rates and population growth.

Number of families at various income levels.

Measures of housing adequacy and slum conditions.

Measures of national health, such as will be available from the national health survey.

Accident rates, on highways and in industry and homes.

Number of persons rehabilitated and number wanting or needing rehabilitation.

Acceptances and rejections of registrants for military service, by cause.

Percent of children under 18 in broken families.

Levels of educational attainment.

Number and proportion of children in school, full-time and part-time.

Such measures would make us all more aware of the returns that may be expected from Federal programs for developing human resources. Economic indicators of material progress are essential but material values are being stressed too much.

Our democracy, in its competitive race with communism, must make clear that men, women, and children are our most important resource and the ultimate object of our endeavors.

Representative MILLS. Thank you, Mrs. Ellickson.

Our next panelist is Prof. Eli Ginzberg, graduate school of business, Columbia University.

STATEMENT OF ELI GINZBERG, PROFESSOR OF ECONOMICS, COLUMBIA UNIVERSITY

Mr. GINZBERG. Mr. Chairman, and members of the committee, my original paper was so short that I just thought I would talk around it, drawing on the fact that for the last 7 years at Columbia, we have been engaged in a basic research project, entitled, "Conservation of Human Resources."

It may be of interest to the committee to know that that project was established by the President of the United States, when he was president of Columbia, because of his concern at the end of World War II with the state of the Nation's human resources as revealed by the war.

I will give you just one figure. There were roughly, on the basis of the Selective Service examinations and on the experience of the Armed Forces, found to be just under 2 million young Americans in the draft ages who were either total illiterates, or borderline illiterates.

Since there were 18 million young Americans screened for service, that meant that 1 out of 6 young men in the country, on the basis of World War II data, were found to be borderline or total illiterates.

The second figure that ought to be added, is that 1 million young Americans were rejected from military service because they were emotionally unstable. An additional million young men were prematurely separated from the Army and Navy while the war was still underway because they did not seem to have the necessary emotional stability.

So, rounding my figures, 4 million young men out of 18 million total, or more than 1 out of every 5 young men was found to be deficient for mental and emotional reasons in World War II. This was the background of the President's preoccupation, not only from the viewpoint of what does this mean for the defense position of the country, but also what does it mean for a democracy that is proud of its accomplishments, and is concerned with the continued expansion of its economy.

Frankly, in 1949 and 1950, when the project was launched, the preoccupation with the Russians was, let us say, in low gear. I want to present to you some of my reflections based upon the books and reports that we have completed during the past several years.

I think one could say first, that the United States Government, has always had a human-resources policy, even if it has not been to the fore. We had an immigration policy, and that was very definitely a human-resource policy. We had an education policy before the country was formed in 1787, when Northwest Ordinance gave grants of land to the territories so that they could set up schools.

I would say that West Point, which was the training center of the first American engineers, really represented a contribution to a human-resource policy. Public health was obviously a facet thereof. In a way, I suppose our Indian wars, represented a contribution by the Federal Government to the pacification of the West, which in making possible settlement, was also part of a national human-resources policy.

Nevertheless, I think it is fair to say that it was a human-resources policy that was very selective and that proceeded in low gear. Now, what has happened to change the situation? I would say first, World War II should have alerted us, from the figures I have presented, that there is a very close connection between the quality of our human resources and the defense and security of the country.

One more illustration: If one thinks of the atomic bomb, one must realize that Einstein, Fermi, Szilard, Bohr, were all "human resources" driven out of Europe by Hitler, and if we had not had them, we would have been in a sorry plight.

The current preoccupation with basic research was already in front of our nose in 1945. We have long lived off European human-resource capital. The next point about basic research is that those who in the depression of the 1930's emphasized the dangers of stagnation have been proved wrong.

The reason is that a new frontier has been discovered, the frontier that comes out of the laboratory. While the old economists used to think the frontier as a physical area, in which additional land was required to keep the economy prosperous, we now realize that to a very real extent, the vitality of the economy is predicated on the research laboratory.

That means people, primarily; that means a high order of trained people. So the ability of the American economy to advance is very definitely a function in the first instance of the number of highly trained personnel that it has available.

Thirdly, I would like to say that I think the general international-political situation is very much affected by our behavior at home with respect to our human resources.

The President indicated the other night that what goes on at Little Rock is not without influence on the effectiveness of our foreign policy.

The Russians, not too long ago, took a sentence out of one of our earlier books on *The Uneducated*, in which we said that the United States spends more money on migratory birds than on migratory people. They managed to find the sentence, but apparently, not too many Americans have yet found it.

I would, therefore, conclude these short comments with these suggested guidelines to the committee. The first guideline is that we recognize that the basic wealth of the economy, and the basic security

in the United States resides not in standby plants nor in the accumulation of strategic materials for mobilization.

You have acted in both of these regards. Our security has much more to do with the level of competence of the population than with any other single factor. This is the real implication of my presentation.

The second point is that, no matter what has been our history concerning State and local responsibility for the training and education of the population, for its health, and for other essential services, once one recognizes that the quality of the population is a major defense resource, the Federal Government's specific responsibility is unequivocal, even though this should not lead one to conclude that it is solely a Federal responsibility.

The third point is that I do not believe, as many do, that the only problem is more money. The Federal Government is today spending—and we cannot even get agreement on the figures—the President is using one figure and his advisers are using another—on research and development, \$3 billion, or over \$5 billion, depending on how you count the Department of Defense procurement expenditures.

I would say, and I think that was the burden of testimony yesterday in another committee hearing, that how money is spent, and the administration and efficiency with which it is spent, has just relevance in affecting the outcome, and that if you spend money the wrong way, you may go backward.

The Federal Government is today putting about a half a billion dollars into the development and research work carried on by the large universities in this country. That is a sizable figure. We cannot go into it here, but I think financing on an annual basis, in terms of specific development projects, is doing the country as a whole a long-run disservice no matter how much it may contribute to the short-run advantage of the armed services.

I would suggest to the committee that it make a critical investigation of the structure and administration of the Government's research effort.

Such an investigation may reveal the need to spend more. I don't know. I think the Federal Government has a direct responsibility, through the Bureau of the Census and the Department of Labor, to do a much better job on long-range manpower planning than it is now doing. Once again, I recommend that the Federal Government not assume this as a sole responsibility, but in conjunction with organized labor, business, and universities. Much more has to be done on long-range planning than is now being done, because of the long lead time that is required when one is dealing with scientific and other kinds of trained manpower.

One must deal in decades. The more crash the program, the more the results will crash. You cannot have crash programs. I would summarize by saying that a system of capitalism which was predicated on a theory of investment in capital never really understood its own true strength, because it has always been basically a system of people and the investment concept should be broadened to include maximum investment in people.

Representative MILLS. Thank you.

Our next panelist is Prof. Daniel M. Holland, School of Commerce, New York University.

**STATEMENT OF DANIEL M. HOLLAND, ASSOCIATE PROFESSOR,
SCHOOL OF COMMERCE, NEW YORK UNIVERSITY**

Mr. HOLLAND. Thank you, Mr. Chairman.

Within the last generation pensions have emerged as an important economic institution. Currently, annual payments on the order of \$13 billion are being made to over 16.5 million beneficiaries—closer to 14.5 million if the total is adjusted for receipts of benefits under more than 1 program. In the aggregate, pension funds hold over \$75 billion of assets and are growing at about \$6 billion per year. Contrast these magnitudes with those of 1940—less than \$1.5 billion of payments, and about 3.3 million beneficiaries, and less than \$6 billion of assets.

No wonder that pension benefits have outstripped the growth in income, rising from under 2 percent of personal income in 1940 to close to 4 percent by 1956. Even more impressive than the record of recent growth is the size that pension programs appear likely to reach in the future. In the main, even on the basis of existing laws they are still in a stage of rapid growth; moreover, there are a number of strong possibilities for extension of the scope of present programs and liberalization of their benefit levels.

These remarks and those that follow have in mind a broad construction of the concept of pensions that includes the old-age retirement, disability, and survivorship features of the following programs:

Old-age, survivors, and disability insurance; railroad retirement; public assistance; Federal pensions and disability payments to veterans, with only the 50 percent or more service-connected disability payments falling in the pension category; retirement programs for governmental employees; and private pension plans.

While numerous specific factors help to explain the origin and growth of each particular pension program, the development of all of them has been strongly influenced by two broad trends. One is demographic—an absolute and relative growth in the population age 65 or over, which increased from 3.1 million in 1900 to 14.1 million in 1955, from 4.1 percent of the population to 8.6 percent.

By 1975, it is estimated that this age group will number 20.7 million. More directly related to the need for income in retirement is the sharp increase over time in the average number of years spent in retirement due to the rise in life expectancy and the decline in the number of years that older persons, on an average, spend in the labor force.

For a 60-year-old working male, retirement expectancy has increased from 2.8 years in 1900 to 6.9 years in 1955. The declining importance of agriculture and the growth of urbanization are additional demographic factors leading to an increased need for formal arrangements for providing support in nonworking old age.

The other trend referred to is the increase in the scope and functions of government. This can, of course, be traced back to 1900 or earlier, but the experience of the great depression accelerated the trend and heightened the community's desire for income security.

As to specific influences on particular programs we may note the importance of the two World Wars on the size of veterans' pensions; the depression's influence on the development of the Federal Gov-

ernment's participation in public-assistance programs; and a complex of factors: The rapid growth of unions, the wage stabilization policy of World War II, the high rates of income taxation that have prevailed since the early forties that have resulted in the great proliferation of private pension programs.

Measured by payments and beneficiaries, by far the major pension program is OASDI. In 1956, payments under this program were \$5.7 billion, beneficiaries 8.5 million. But sizable too, were the public-service employee programs with about 1 million beneficiaries receiving \$1.6 billion of payments; public assistance, old age, aid to the blind, and to the permanently and totally disabled, payments of \$1.9 billion to 2.9 million recipients; veterans payments of \$2.1 billion to 2.3 million persons.

Measured by size of accumulated funds and rate of fund accumulation, private pension programs are preeminent. Again, in reference to the 1956 funds set up in connection with these plans totaled \$28.5 billion, and were growing at over \$3 billion per year.

OASI's fund in 1956 stood at \$22.5 billion; its rate of fund accumulation, however, was under \$1 billion and will be even lower, probably reaching a slight negative amount over the next several years until the hike in payroll tax rates scheduled for 1960.

Sizable annual accumulations are made by State and local employee retirement plan funds—about \$1.4 billion in 1956.

In the aggregate, pension-fund accumulations of \$6.3 billion in 1956 represented 28 percent of personal saving, defined to include Government insurance and pension reserves.

The various public pension programs and private plans together make up a pension structure, not in the sense that they form an integrated and articulated entity because each program has been framed with careful recognition of the others, but in the sense that each program is addressed to the same general type of need.

Obviously, these programs have effects on one another—some untoward, others intended; some mutually reinforcing; others that tend to cancel out.

An important set of questions posed by such a structure are these: What does it add up to; where is it heading; are there serious lacunae, unnecessary duplications; are programs consistent with one another? This suggests the need for a thorough study of the development of each major component of the pension structure, the interrelations among the components and how they might grow in the future.

This need is reinforced by the recognition of the fact that provision for the aged is also made via various forms of tax relief—extra exemptions, more liberal medical deduction, retirement income credit, tax saving through the income averaging that takes place under private plans—that add up to something like \$1.5 billion of revenue loss annually, and could very well grow significantly if retirement savings credits are provided for the self-employed.

The current scale of pension-plan operations and their rapid rate of growth have engendered increasing interest in the effects that these programs might have on such important economic variables as savings, investment, resource mobility and productivity, the level of income and employment, and the distribution of income among income classes and between workers and the retired population. I shall discuss very briefly the first and last of these items.

All of the programs that constitute the "pension structure" affect the flow of savings to some degree since they all involve a redistribution of income or an alteration of its direction of flow.

The de facto pay-as-you-go programs—veterans and public assistance—probably operate to reduce savings. All the others, those accumulating reserve funds, probably tend to increase the flow of saving but, on net balance, by considerably less each year than the annual increase in their fund assets.

All in all, then, the fiscal operations of the pension structure make for a higher level of savings.

Should we view with alarm or regard as salutary the fact that total savings are probably higher than they would be in the absence of pension programs? Earlier discussions of this problem framed with reference to the economic experience of the thirties tended to emphasize the deflationary potential of adding to the stream of savings.

This would lower consumption and have little or no effect on investment; thus aggregate demand, output, and employment would fall.

More recently, reflecting the changed economic environment, increased attention has been devoted to the effect of trust-fund accumulation on the supply of investment-seeking funds and the consequent increase in capital formation. The more recent analyses lead to the conclusion that the primary effect of pension fund growth is on the composition of output, weighing it more heavily with investment than would otherwise have been the case.

To go one step further, if over the longer pull, as many hold likely, the general outlook is for oversufficient aggregate demand with consequent inflationary pressures, the increase in saving due to pension programs will tend to dampen the rise in prices.

Under these conditions, pension-plan operations would leave total output unaffected, would cause a larger fraction of it to be devoted to capital formation, and would tend to moderate price increases, thus helping to insure the adequacy of the benefits to be paid out under the plans. That pension funds would, therefore, be playing a salutary role need not be belabored.

Nor is this conclusion invalidated by the consideration of cyclical fluctuations around a full employment, with or without inflation, for the deflationary pressures of pension plans can be expected to vary in intensity in a countercyclical way.

In periods of declining economic activity, contributions tend to fall while benefit payments remain steady at the very least, or rise somewhat. So, when aggregate income is falling, the operations of pension programs tend to moderate the decline on balance, making it less severe than it would have been. Similarly, a rise in the level of income would be moderated by the tendency for contributions to increase and benefit payments to remain steady, or, allowing for their trend, to rise more slowly than they would have.

To many people's way of thinking one of the key problems raised by growing numbers of persons over 65 and the burgeoning structure of pension arrangements for their support is simply this: Can we afford it?

As a first and very rough approximation, the answer to this question appears to depend on the size of pension transfers and the flow of out-

put they will be bid against. Estimates which do not cover private plans, prepared for the President's Commission on Veterans' Pensions suggest that, with laws and benefit rates for all public programs unchanged, by 1985 public pension benefit payments will represent a fraction of national income only slightly higher than that for 1955.

However, benefits would grow noticeably relative to income over the first decade of this 30-year period.

But the history of pension growth suggests that maintenance of existing benefit structures probably constitutes the lower limit of conjectures about benefit growth in the future.

For one thing, it implies a decline in the ratio of pension benefits to average earnings, for even should wage and price levels remain unchanged, real wages would rise with increases in productivity. For another, it takes no account of the growth potential of veteran's nonservice-connected pensions.

Estimates that do take account of these factors, by assuming general service pensions and increases in benefit rates at 1.25 percent per annum, suggest that by 1985 public program pension benefit payments might represent 7.5 percent of national income, more than twice the percentage that they constituted in 1955.

But, defining "burden" as a transfer of claims to output from workers to nonworkers, these ratios tend to overstate the burden. First, because in the absence of organized formal plans some more informal and intrafamily provision would have been made for the aged.

Second, because under most of the programs making up the pension structure, what a beneficiary receives in retirement is related, although not always with great precision, to potential consumption foregone because of his participation in the program.

This foregone consumption could have been matched by investment, and, as a consequence, the now-working generation will be producing more efficiently. Under these conditions, to cite the full amount of pension payments, and the amount of output these payments could purchase, as a burden would overstate the deprivation visited upon the working population.

Representative MILLS. Thank you, Professor Holland.

Our next panelist is Prof. Clarence D. Long, department of economics, the Johns Hopkins University. Professor Long, you are recognized.

**STATEMENTS OF CLARENCE D. LONG, PROFESSOR OF ECONOMICS,
AND SELMA MUSHKIN, RESEARCH ASSOCIATE, SCHOOL OF
HYGIENE AND PUBLIC HEALTH AND DEPARTMENT OF POLITICAL
ECONOMY, JOHNS HOPKINS UNIVERSITY**

Mr. LONG. Welfare programs are often regarded as being, like private charity or support of the church, something which is noble but unproductive—essentially a burden on the taxpayer. This view is partly true but largely mistaken.

Some welfare expenditures are purely altruistic in aim and result. Large portions of our welfare programs are, however, in the long run and from the overall view, the most wealth-creating expenditures our

economy can make because they develop or conserve the greatest resources of all, our human resources.

Thus, eventually, they increase the number and incomes of people who pay taxes. It is not hard to demonstrate that our welfare programs are intimately related to the growth and stability of our economy. In the light of this relationship, we must stand ready as a nation to make a number of choices.

The immediate choice before the Nation is between cutbacks in welfare activities to meet increased defense spending or new taxes or borrowings. There seems no doubt now that defense spending must be enlarged. But it would be shortsighted indeed, to reduce our public investment in people.

Social-welfare expenditures help to develop our Nation's intellectual resources and its scientific talent. They increase the effective size and productivity of the work forces. They generate a supporting volume of private investment and give stability to consumer markets. Today, more than 10 percent of consumer income after taxes is made up of welfare payments and services. Imagine the impact on our private economy if these were withdrawn.

Social-welfare expenditures not only contribute to economic growth and stability but they give evidence of our national concern about the individual person and his needs. It is this concern about the individual which symbolizes our Nation in the eyes of the world. Let us not weaken this important weapon in the conflict of ideology.

The second major choice is whether to expand our welfare programs as our national income rises in the future, or keep them the same and enjoy a reduction in our taxes.

National, State, and community spending for welfare purposes, under existing legislative authority, are estimated about \$50 billion for 1956, an amount about \$15 billion higher than comparable outlays in 1956.

The higher social-welfare outlays projected for a decade ahead under existing legislative authority would not impose a higher tax load, Federal, State, and local.

The increased national income will enable us to finance the higher outlays and, at the same time, reduce the percentage burden of Federal general revenues, devoted to welfare expenditure.

However, State and local taxes, especially property taxes, finance a substantial part of welfare expenditures and these bases cannot be expected to grow in proportion to the national product.

The large increases projected for State and community activities and services, including education, health, assistance, metropolitan area developments, slum clearance, water supplies, requires us to search for new State and local revenue sources and to consider Federal aids to States and State aids to localities.

The social-welfare programs are developing programs. Many proposals have been advanced before the Congress and by responsible study groups to enlarge present legislative authority: To provide more education for more young people; to improve the availability of health personnel and the organization of health services; to provide an increased measure of protection for aged persons against the costs of hospitalized illness; to provide protection for employed groups; generally, against the loss of income due to sickness and disability; and to

help restore workmen's compensation and unemployment benefits to levels originally contemplated by national and State action.

These changes would increase the social-welfare budget by an additional \$7.5 billion a decade ahead.

In choosing between enlarged programs and reduced Federal tax burdens, we will have to decide as a nation whether we will get enough economic growth from expanding our welfare programs to compensate for the deterrent effect of the present high taxes.

It is our belief that an expansion of our social-welfare programs will have a very great stimulating effect on our economy, provided we play down those programs which involve mere charity and emphasize those, such as public health, education, vocational rehabilitation, which help people to help themselves.

The charity programs merely transfer income. The human development programs greatly increase our potential wealth and enable millions of people to climb down off the taxpayers' back and help him carry part of the load. I cannot emphasize that too much.

For the longer run, another critical choice is between a sacrifice of part of potential economic growth for added leisure for the work force, in the form of reduced hours of work. The present average workweek of 40 hours is far from burdensome and, in view of our enormous needs for national defense, for welfare services, and for raising the living standards of millions of low-income families, it would seem a great mistake within the foreseeable future to press for the luxury of a shorter workweek or work year. There is too much work to be done.

Representative MILLS. Thank you, Professor Long.

Our next panelist is Prof. Paul Strayer, of Princeton University. Professor Strayer, you are recognized.

STATEMENT OF PAUL J. STRAYER, ASSOCIATE PROFESSOR OF ECONOMICS, PRINCETON UNIVERSITY

MR. STRAYER. Thank you, Mr. Chairman. I first raise the question of why should Federal aid be considered now? Certainly there have been even greater problems in the past and in spite of the uneven educational opportunity offered in different parts of the United States our growth has continued without interruption, except for the years of the great depressions.

Several reasons make the need for Federal aid more compelling today. Perhaps the most important has been the tremendous increase in the severity of Federal tax burdens. In face of such increases the State and local governments are finding it difficult to finance their basic service programs, particularly in education.

Second, the need for more educated people expands continuously as the complexity of the economic, the technical, and the political system grows apace. What was once a reasonably good education no longer proves to be satisfactory.

If we are to solve the problems associated with our social and economic development in the future, we must have many more persons with highly developed skills. The limiting factor in the expansion of many enterprises today is not lack of capital, but rather, the lack of managers, skilled workers capable of running the increasingly complex machinery, and of technical personnel necessary to develop and

adapt the equipment of the plant to make the greatest use of modern technological developments.

Third, is the extraordinary increase in population and the growing mobility of the population. These reflect, among other things, the great prosperity of the past 15 years and the desire of many persons to live in the suburbs.

This trend seems to be a steady one and has created many special problems. The difficulties confronting a State like California or a town like Levittown are not definable in terms of potential or present wealth, but are, rather, related to the capacity of the State or local government to pay for the sudden large capital outlays required to meet the minimal needs of the children of school age.

What might have been financed without strain over a period of many years, in a more normally growing community, now has to be done overnight. Debt limits, tax rates, and public attitudes are adverse to so rapid an expansion in the costs of government.

The unhappy consequences include inadequate school buildings, oversized classes, double sessions, and salaries too low to attract as teachers those persons best qualified to do the job.

In face of the rapidly rising population and the need for more highly educated people, there is little possibility that the States will be able to raise the money to do the job. The resistance to increases in the property tax has severely limited the power of local governments to pay more for education. The States are little better off. Fearful of getting out of line, they are unlikely to do more than the minimum. The danger is that, if the financing of education is left to the State and local governments, the quality of educational opportunity offered our children will gradually decline.

This we cannot afford, if we are to maintain the growth that we expect and the leadership so necessary in these troubled times. To prevent this danger, there is only one possibility; the use of the superior revenue-raising powers of the Federal Government to help the States.

Not only can the Federal Government raise money more efficiently and administer taxes more equitably, but it has the capacity to distribute the costs of education more fairly among all of the people who will benefit from improvements in the quality of our workers and leaders.

We must now face the fact that old relationships among the Federal, State, and local governments have changed. When the Federal Government demanded little, the State and local governments were in a favorable position. Today, they are second and third claimants upon the taxpayer's dollar and are finding it increasingly difficult to pay their bills.

The national interest in high educational standards is clear. Our ability to maintain a stable political and social structure over years ahead will be determined by our capacity to maintain a growing economy. In large measure, growth will be determined by the sort of education we give our young people.

If we fail to give a good education, we will pay the price of failure for years to come. Failure to grow can have serious consequences. Over our past history, there has been no greater solvent of political tensions and economic differences than the remarkable improvement in living standards we have achieved.

Should this decline in the future, there would arise a host of difficulties new to our society that would place us in a position more like that of the older European countries who have suffered from internal dissension, class differences, and the frustrations of a much slower rate of economic expansion.

The choice is clear. Either Federal aid will be forthcoming on terms that can be made acceptable to the States, or we will suffer a general deterioration in the quality of education and the consequent deterioration in our economic and social well-being.

Representative MILLS. Thank you.

Before the members of the subcommittee begin interrogating members of the panel, I wonder if we cannot take occasion, as we have in other panels, to permit members of the panel, all of whom have had the opportunity to read the statements in the compendium and to hear the remarks of other panelists this morning, to begin this session of interrogation with questions or discussions of things that have been said by other members of the panel. May I have a volunteer in this respect?

Mr. BOWEN. Mr. Chairman, I would like to suggest that one point made by Mr. Long should be developed further. He mentioned that one reason for expansion of our expenditures upon public-welfare services is ideological. I should like to hear him talk further to that point, if he would.

Representative MILLS. Professor Long?

Mr. LONG. I would be very happy to develop that point a little. It seems to me that, historically, the United States was one of the first nations to recognize the importance of developing the individual. If you go back to the early Jacksonian period, in the 1820's and 1830's when we began to get our grass roots democracy, there was an immediate recognition that one of the things that we needed to do was to develop some sort of workers' education program. I think our immigration policies, and a great many of our welfare policies, have meant in the eyes of the world that we were not a nation of mere dollar chasers, but a nation that recognized the importance and the dignity of the individual, and tried to make the most of him.

I don't suppose any nation in the whole history of the world has ever taken so many unpromising people—I mean from outward appearance, not the internal potential—and done so much with them in such a short time as this country has. It would be a great mistake if we did not recognize this past accomplishment and go on and make as much more of it as we can.

Representative MILLS. Dr. Campbell?

Mr. CAMPBELL. I have a couple of comments I would like to make. The first one is on Mr. Corey's paper, where he speaks of the educational shortage as being a money shortage. There is no question of the fact that education, like the rest of the fields under consideration today, is short of money. Everyone is short of money. The figures that he uses on capital outlays in the next 10 years are that it will cost \$20 billion more during the next 10 years to provide housing for the increase in enrollment, and another \$10 billion to catch up; that is a total of \$30 billion.

I would point out to Mr. Corey that, at the present time, capital-expenditure rates of States and localities are roughly \$2.7 billion,

and that they have been increasing every year. It seems quite clear to me, at least, that the States and localities can take care of that particular problem. The more important thing, it seems to me, is whether you want to do everything at once or whether you want to plan this over a longer period of time.

I also have a comment on Professor Strayer's paper, where he says on page 3 in regard to the States and localities that today they are second and third claimants upon the taxpayer's dollar and are finding it increasingly difficult to pay their bills. I don't think there is any question of that whatsoever, but I find rather depressing Mr. Strayer's proposal whereby you give even more functions to the National Government, and, instead of having second- and third-class citizens, we would end up with fourth- and fifth-class citizens in the form of our States and localities.

Representative MILLS. Dr. Campbell, you have two panelists entitled to respond to your remarks. We will recognize Mr. Corey first.

Mr. COREY. In regard to the school-building situation, there is one thing I would like to say about the need and the cost. We have spent a lot of money in our State. We are, relatively, a rich State. We have tried to keep up in school building. I would like to have Mr. Campbell sit for 1 day in the chair of a superintendent of schools in one of our districts who is plagued with this problem. In spite of all of our efforts, we still have 180,000 students in double sessions.

Representative MILLS. May I interrupt you? Is that in your larger metropolitan areas?

Mr. COREY. Strangely enough, our growth problem is not centralized in any one spot. In general, it is not in the biggest cities. The biggest cities have been relatively more able to take care of their own needs. I would say that, if we must generalize, the problem is more critical in what we might call the bedroom areas, around the big cities, where they have had large residential developments, with little industry. The industry is centralized in the cities, paying taxes there, but the people living in the outlying areas pay taxes only on their homes. This does not carry the load.

The people who are trying to struggle with this problem, the parents who have children in school in double sessions, and in schools where classes are up to 40, 45, and 50, don't take very well to the idea that meeting this need should be spread out over a long period of time. They have the idea that their children ought to have schoolrooms now, not after they graduate.

Mr. CAMPBELL. Could I just make a comment on that? I wasn't suggesting to Mr. Corey that everything be spread out over a long period of time. All I was saying was that this problem is rapidly being solved. We have the problem out in the county where I live, which is Montgomery County, which is one of the richest counties in the country.

There is no question of the fact but the good citizenry out there, myself included, don't like to pay our property taxes. You should hear the way I scream when I get mine every fall. But there is also no question of the fact that we could pay a great deal more than we are paying now.

Representative MILLS. Is that off the record or on the record?

Mr. CAMPBELL. I would prefer to put it on the record, because I have been complaining publicly.

Representative MILLS. Professor Strayer?

Mr. STRAYER. I would like to answer Mr. Campbell on, first, the count of the differential capacity of the different States to support education. I have here the Survey of Current Business, the August issue, which shows that the per capita income of the State of Mississippi is \$984. The per capita income of the State of Delaware is \$2,858. In my long paper submitted for the compendium, I stress very heavily the fact that what I wanted was Federal equalization aid, so that you could raise the standards of the poorer States, to bring them up to some minimum level. I see no way by which the State of Mississippi, which is now making a much greater effort than my State, the State of New Jersey, is making to support education, can raise its level of educational opportunity so that it can give to all the children of that State the sort of education that we think they need. We need it in New Jersey. We need it in California. We need it in Michigan.

A lot of those people are going to be workers in the plants of New Jersey, Michigan, and California.

Representative MILLS. Professor Ginzberg?

Mr. GINZBERG. If I may, I have one comment on Mr. Strayer, and then I would like to go back to the comment of Mr. Bowen and Mr. Campbell.

On the equalization approach, I think it is important to recognize that not only are the children of the country a national resource from the viewpoint of defense, but also from the point of view of the economy. Our economy has always been dependent upon a high mobility of labor. That of course is why California is in trouble at the moment. Therefore, the richer States that would have to help Mississippi would gain by so doing.

After all, I come from New York, and we are getting a very large inflow of southern migrants. Obviously, if those migrants could be better educated in the South and have better health services, by the time they came North they could make a greater contribution. This holds for New York, for Detroit, Chicago, and for many other centers.

I would like to underscore the point that there is a national interdependence as far as economy is concerned, and it is important that certain areas of the country are not permitted to lag too far behind.

On Mr. Bowen's point, Mr. Long talked about the foreign implications, or the implications for our foreign policy, growing out of a human resource policy. There is one aspect that may not be fully understood.

In my personal opinion, based on my overseas work for the Departments of State and the Army, I am convinced that we could have done much better with many of the dollars that we have given overseas had we been able to make available more technical competence and fewer dollars, rather than more dollars with fewer experts. As one looks ahead and tries to get some perspective about the problems that are going to face the United States in Africa and India in the coming decades, I would think that any money we care to invest in training a larger corps of good specialists in the fields of education, public health, economics, and so on, in order to have more available to meet requests from overseas, would give us a high rate of return similar

to what the British got in the 19th century, in their more enlightened type of imperialism. They made a real contribution when they sent trained administrators to a country like India.

So I think there is an economic aspect to this, as well as moral and political reasons for behaving properly.

Representative MILLS. Mrs. Ellickson?

Mrs. ELLICKSON. Mr. Chairman, it seems to me there has been remarkable agreement among most of the panelists here that expenditures for people are, in fact, investments in many cases. I think we are confronted with the problem of really getting this point across, both to the American people and to some of the Members of Congress.

I threw in a few suggestions of my own as to how we might measure human well-being as a method of focusing attention on the need. I would like to ask Mr. Ginzberg or some of the other panel members who have expressed this viewpoint whether they have any specific proposals as to how we can show that money spent for people in fact does lead to greater economic growth and greater economic return in a manner that will mean that we are not letting these imperative opportunities go unmet year after year.

Representative MILLS. Dr. Bowen?

Mr. BOWEN. I should like to speak to that. There is, of course, no completely decisive measure of the contribution of education to economic growth, but there are enough indications so that we can be very clear on this.

For example, there is a distinct correlation between educational level in the countries of the world and the gross national product per capita in these countries.

I have, over a period of years, been interested in Russian education. One can trace a very close relationship between the economic development of the Soviet Union and the progress of education in that country.

As the Russians began to raise their educational standards, this was reflected (with a certain lag) in the economic productivity of the country. Under the Soviet system, very little progress was made economically until they began this educational program. Education was the force that set them on the road toward economic progress.

Still another evidence that has been widely quoted is simply the income levels of people with different amounts of education. One can make computations, which are slightly spurious but suggestive nevertheless, that college education is worth \$100,000, and a college education is obtained at the cost of perhaps \$10,000 to \$16,000, all costs considered. This is a very high return in relation to most capital investments that we make.

I have referred only to the educational field, which is mine. I am sure other measures could be found for other areas as well.

Representative MILLS. Professor Long?

Mr. LONG. I would even go beyond Mr. Bowen. You find a most remarkable correlation between level of education, for example, and level of employment. That is to say, you find most of the unemployment and most of the non-labor-force participants among people who have low education, and employment and labor-force status move up in a very steady and impressive way with the level of education.

I would like to speak to another point. I think almost any layman who reads the recommendations of a group like this, ends up by

being impressed not only with what a large-hearted group we are, but also with what an enormous expense this sort of thing adds up to. It can really become frightening to the average person. I think we have to have not only a large interest in the welfare of our country and a vision of the future, but also some realization of what these things cost, and of sacrifices that have to be made to get them.

One of the things that dismays me in the field of education, for example, is the emphasis on classrooms.

As I go through communities, I see the most magnificent edifices as school buildings. As I have taught through the years in universities, I have become increasingly impressed and dismayed with the terrifically high standard of luxury surrounding that universities are trying to provide for students and faculty, a standard of luxury that has very little to do with the educational process.

Now, people are being asked to pay very high tuition to provide with this type of thing. Often it adds up to entertainment. I don't honestly really think it makes much difference whether children are in double session in a classroom, provided they have a teacher who knows what he is talking about, and a really decent educational curriculum.

As a kid I started off in a one-room schoolhouse. It didn't matter 2 cents to me what kind of a school building it was. The important thing, as I look back, was the quality of the teaching and the quality of the curriculum.

I would like a lot less emphasis on this quantitative type of thing in looking to the future. If we are going to do all of this, it is going to cost an enormous amount, and we should be prepared to make sacrifices.

Representative MILLS. Professor Strayer?

Mr. STRAYER. I would like to add one more comment on this problem of State and local finance. In the first place, we have found that the property tax has been a declining source of revenue. I think this is largely because people are gradually awakening to the fact that it is one of the most regressive of all the taxes that are imposed upon the citizens of the United States.

You take any figure of housing expenditure in relation to income, and you will find there is a very substantial regression that is the result of the use of the property tax. Then you go to the sources of State revenue. I was doing some work in California last winter, and I was shocked to find that in spite of the fact that the State of California has a \$3,500 exemption for a married couple and, I believe, \$400 for each dependent, \$5,000 brackets, and community property, resulting in taxable income being subjected only to 1-percent rates, up to over \$14,000 for a man, wife, and two children, that the income tax in a scientific poll taken in the State of California came out at the bottom of the heap. It was below the sales tax which, in the State of California now is at a 4-percent rate. It is a 3-percent State rate and 1-percent county rate. Why?

I think the answer is simple: The Federal burden is so heavy that people are reacting to the Federal burden, not to a realistic appraisal of the income tax as a source of revenue for the State of California.

I also happen to come from the State of New Jersey, and we have just run a campaign where no new taxes are the issue. It isn't possible to continue on the basis that we are continuing, and yet this has

been an issue ever since 1935 when we had a brief exposure to a sales tax and it was blown out because of a deal made between the late Governor Hoffman and Mayor Hague. But we are in trouble in the State of New Jersey.

Again, I think it is not because of our resources, not because of our lack of capacity, but because this has become a political football.

I am convinced we should be contributors to the State of Mississippi. I think the only way it will happen is if the Federal Government gets in the picture.

Representative MILLS. Professor Cohen?

Mr. COHEN. I think this last comment touches on a point that several people have implied but haven't brought out quite explicitly. In our Federal-State system we have a very difficult problem in achieving these objectives in health, education, and welfare because of the problem of interstate competition.

We are all agreed, as we stated here in this panel, that we want to meet these objectives, that it costs a lot of money, and that they are worth while. But if we want to attain decentralization of functions, then I think we have to recognize that the National Government must protect the States that do want to go forward from the unfair interstate competition that exists.

I come, too, from a rather wealthy State, ninth in per capita income in the United States. Like New Jersey, we have exactly the same problems on health, education, and welfare, because we just can't forge ahead much faster than the other States that are competing in producing the products that Michigan produces. So we are in this predicament: The poor States can't raise the level of welfare much higher without making a superhuman effort, and the rich States can't go much faster because they can't get too far out of line with competing States. Therefore, it seems to me that there is a national concern in establishing mechanisms and tax policy which will help both the rich and the poor States.

Secondly, I would like to comment on what Professor Ginzberg has stated. I think he has touched on a very important point that has been neglected here. If we want to encourage universities in education, and States and localities, and universities in the fields of research, and States in the field of welfare, to undertake a more long-run program, the method of Federal budgeting on a year-to-year basis, particularly when Congress votes the appropriations, let's say, on June 30 or July 2 for a fiscal year to begin on July 1 is not conducive to a sound long-range program.

I believe it would be very valuable for this committee or some other committee to go into this question of budgeting. You cannot buy research and you cannot build manpower on a sporadic year-to-year basis, and particularly in the light of what might happen next year. You can't increase it one year and then cut it out the next year. That is not conducive to sound programing. I think something like the contractual authorization over a longer period of time, over a 5-year period, perhaps changing the fiscal year relationship so that States and universities could know a year ahead what they were going to get, and obtain the manpower, would be extremely important in making a wiser use of available funds.

Third, I would like to say that in this competition for money in this whole field, there is one area, namely, the payroll tax and social

insurance, in which employees probably are willing to have the Federal Government increase their taxes for improved benefits, which eventually would take off some of the burden on general revenues for public assistance.

Representative MILLS. Professor Ginzberg?

Mr. GINZBERG. I think we have skirted it a few times, but it might be helpful to suggest to the committee that it try to encourage one of the agencies of the Federal Government or some other group to develop a more realistic accounting system than we now have concerning welfare expenditures. If you read papers that have been prepared even casually, as I tried to do, it is obvious that many expenditures are the Federal Government wash accounts. People are taking their own money, giving it to the Federal Government to hold for a while and taking it out again.

So I think a beginning could be made by getting a realistic accounting system just on inflow and outflow.

The next point would be to try to develop accounts in terms of the capital values that are created as a result of the expenditures. That would not be easy to do. It has been mentioned here before. However, it would be helpful.

The third point, and one which I think is very fundamental, is this: The notion that a government is always a detriment to a democratic society when it takes money away from the individual is a wild idea. I assume we have a democratic government because it was created to do something for us, that is, for the majority of the people.

I think the Congress should try to get as much help as it can to make clear to the public that there are many expenditures which can be constructively undertaken only through larger units in the society. That is, the individual will get less for his money if he spends it himself than if he pools his money with other people's money to secure essential services.

I think we have reached a point in the United States where a more positive attitude toward intelligent spending by Government is long overdue. Until we get that, I regret to say that we will be vulnerable to a thousand and one red herrings.

There are X number of important things that a citizen cannot buy for himself as cheaply as the Government can buy them for him, and the Nation cannot survive and prosper unless it engages in certain types of social expenditures.

Representative MILLS. Dr. Campbell?

Mr. CAMPBELL. I have two brief comments. First, I noted that both Professor Strayer and I believe Mr. Ginzberg referred to making Federal moneys available to Mississippi. I trust they are all aware how the Mississippi House delegation voted last year on the subject of Federal aid to education, the elected representatives of the people in Mississippi. As a matter of fact, I think you could generalize that, and say if you wanted to make correlations on voting, in general it seems to be the low-income States that take a rather dim view of Federal aid to education, and the high-income States, particularly some of the governors representing high-income States, who seem to be the chief advocates of Federal aid to education.

It is all a very confusing world in terms of fiscal equalization.

I have just a brief comment on the subject of regressivity of State and local taxes as compared to Federal taxes. First, I think that

most of us could readily agree, particularly at this time of the year, that whatever regressivity there may be in State and local taxes, is more than made up by the progressivity of the Federal income tax.

I must say myself as a student of the problem for some considerable number of years, I am always puzzled when every time a proposal for social welfare expenditures comes up in the back door, or in the front door, always comes the subject of the regressivity of the property tax, or some State and local tax, as against the progressivity of Federal taxation, and particularly the Federal personal income tax. We all know there is a limited amount of money which can be obtained through progressive taxation. So what confuses me is, Just where is this money going to come from? It certainly can't be expected to come from the rich people.

Mr. GINZBERG. Can I comment on the point about Mississippi? I assume Mr. Campbell is not unacquainted with the reason why the Mississippi representatives voted as they did. In talking for myself and maybe for Professor Strayer, we assumed that the laws of the Federal Government would one of these days be upheld in the South, at which time the South would not resent taking Federal moneys.

After all, the Negro issue is involved.

Mrs. ELLICKSON. I wanted to follow up on Mr. Ginzberg's point about the Federal Government being able to do some things better than other groups can do.

In the discussion of the relative growth of private pension plans and the public pension plans, this point is not always considered. Actually, our members in the union movement have attempted to get pensions through both methods, both through private collective bargaining and the public programs, and the tremendous expansion of pension programs under private arrangements is to no small extent due to our union efforts. However, our union members recognize that the Federal program has certain advantages over the private programs. It can cover everyone regardless of company failures, individual migration, or the negligence of the individual to pay premiums. The Federal programs are far more economical to administer. Under the old-age, survivors, and disability insurance program, the cost for administration is only 2 cents on the dollar, which is far less than for many other types of programs.

Also, these Government programs, if the value of the dollar shrinks, can be adjusted to the change, whereas, under the private insurance programs, this is not normally done.

So we have to consider these many implicit advantages in social insurance in weighing how people may best provide for their future security.

Representative MILLS. Professor Cohen?

Mr. COHEN. I would like to pick up a point that Professor Long made. I don't think our problem is solely money. I think we have the money in the United States, if we allocate it properly, to have the best program of health, education, and welfare in the whole world. I am also concerned about the problem of manpower and womanpower shortages on the quality side, which he stressed. I think our policies—Federal, State, and local—have tended to deemphasize quality, and I am very concerned about it. There is a tremendous shortage of teachers at all levels, a tremendous shortage of people in the medical

professions that we are not going to be able to meet the standards of medical care that we will need to provide the people in the country in the next 10 years. There is a tremendous shortage of people in every aspect of welfare programs. I am quite concerned about this point. If we now, because of hysteria over Sputnik, put money in for just the training of teachers and research people in science and mathematics, are we not going to further distort our whole situation? There must be a consideration that you have to begin with people far earlier than in college or in high school in preparing them for selecting their future educational goals and attainments.

I hope when the Federal Government next year comes to consider proposals for science and for education, that it will not further distort the situation that already exists in this country, and it will consider the broad, overall point of view that President Bowen has stated, and particularly develop policies that will emphasize quality in addition to quantity.

Representative MILLS. President Bowen?

Mr. BOWEN. I would like to support what Mr. Cohen just said about quality, and I would like to support what Mr. Long said earlier that money is not everything. But I also think that we must recognize that money is a very important thing, even in achieving the quality that we are talking about. It is true that it is better to have a one-room country school with a good teacher than a fine brick building with inadequate teachers and inadequate programs. Yet, even from the standpoint of long-term economy, permanent buildings are more economical to maintain than wooden buildings. Moreover, there is a place for proper facilities and even for comfort for our students. We cannot divorce the standard of living that prevails in our society generally from the standard of living expected by students.

I want to cite two illustrations of what is happening in my State of Iowa concerning the need for facilities. This points up what Mr. Strayer has said earlier. During the current biennium no appropriations whatsoever are being made for capital improvements at our State institutions of higher education except that a press box is being built in the stadium of the university. That is the single item.

The reason for this is that the majority in the legislature is opposed to increasing the property tax, and the governor is opposed to increasing the sales tax. The governor's position is partly that we can't increase the sales tax while we are surrounded by other States that do not have sales taxes.

So as a result of this logjamb over tax policy, not a single dollar is being spent for capital purposes in our State institutions.

I would like to refer also to the problem of my own small college, where we need a library. We think it is a legitimate need for our educational program, for the purpose of achieving the quality that Mr. Cohen has referred to. What is involved in a small college getting a new library?

It would cost us about a million and a half dollars, about the cost of one fighter plane. For us to raise this amount, we must mount a major campaign extending from one end of the country to the other, a campaign having been supported in its initial stages by public relations activity, costing thousands of dollars and many, many man-hours of time.

The effort involved in such a campaign is actually interfering with our education. While this is going on, our faculty is becoming concerned because they wonder whether we are spending so much of our energy in trying to get this building that their salaries will be sacrificed. I think when we have problems like this in meeting the urgent, legitimate capital needs of higher education, the values in our society are askew.

Mr. COREY. That stimulates me to comment on what Professor Long said, not in argument with him but merely to set his mind at rest that I am not preoccupied with school buildings. I think we must have school buildings, but I agree, and I think the teaching profession is sold on the idea that perhaps the greatest need in this country is for a reassessment of values which will put intellectual integrity and intellectual competence into a higher scale of public respect than they now enjoy.

This is very difficult. When the economic status of the college professor is such that almost anybody teaching in college can go out and get more doing something else, you can apply this at any level. We are painfully aware in the teaching profession that 30 percent of the teachers in America's elementary schools have never finished college.

Representative MILLS. Thirty percent?

Mr. COREY. Thirty percent. This is not the kind of person, and we know it, and they know it themselves, who can start little children along the way toward ultimate high respect for intellectual competence.

Representative CURTIS. Hasn't there been tremendous improvement in that area, though?

Mr. COREY. Yes, but not fast enough. The point is that the only way we can make real improvement, the only way we can encourage young people to get to be really competent people intellectually before they come in to the teaching profession, is to get an economic status for teachers so that they can afford to do it without too much sacrifice.

This is the great need—to increase the basic competence of the teaching profession from kindergarten right through the university. This is America's big need. I don't care whether you say money is the problem or not, this is going to cost money.

When an elementary- or high-school teacher can quit any time and get more money driving a truck, or an elementary teacher get more money waiting on a table, intellectual competence is not held in high regard.

Representative MILLS. Professor Dawson?

Mr. DAWSON. This has to do with Mr. Campbell's facts with regard to funds for education. I think it is a point that relates to the question of improvement. When you look at funds for education, and you measure them relative to general economic measures, let's say Government expenditures, national income, and the labor force, you see improvement. But the problem really is: Have the funds for education, and which supply education, grown relative to the demand for education?

These general indicators don't show that. I think this accounts somewhat for the difference in the factual presentation that, let's say, we were given by Mr. Campbell.

Representative MILLS. Mr. Campbell?

Mr. CAMPBELL. I think I can answer that, and also support Professor Cohen's very excellent point on quality in education.

I would like to refer to an article that appeared in the New York Times on Sunday, by the distinguished correspondent Mr. Kenworthy, who was commenting on the National Science Foundation people, particularly their attitude on the subject of either a high-priority program of categorical scholarships in science, or a large, all-inclusive program. Apparently their reaction to it, according to Mr. Kenworthy, was that maybe at long last the American people will see clearly what the National Science Foundation believes are long-standing weaknesses of the educational system, most particularly in the high schools.

I would like to read a couple of paragraphs:

These ills, the Foundation is convinced, will not yield to a single Federal nostrum. Two things the Foundation holds provide the key to the improvement of high-school education: better teachers and a more difficult curriculum. Many officials at the Foundation believe that the quality of much high-school teaching is not to be attributed solely to low salaries. They would attach much of the blame to the stronghold that teachers colleges have had on teacher training, and to the influence they wield in State legislatures and State education departments. Because of the requirements for teaching certificates, Foundation officials believe there are too many high school physics instructors who have had too many courses in educational procedures and not enough in physics. The feeling at the Foundation is also very strong that our high-school students have been protected, that too little demand has been made on their capacities, that the content of solid subjects has been thinned down, and that too many subjects have been added to the curriculum that have nothing to do with training the mind.

This is the report of an interview, apparently, with the National Science Foundation. It would tend to support the conclusion, I think, that although many more dollars are needed in education, more sense is needed even more so.

Representative MILLS. Professor Ginzberg?

Mr. GINZBERG. I wear one other hat at the university as director of staff studies for the National Manpower Council, which has prepared reports since 1951 on the professional and trained manpower resources of this country, and which has published a series of six volumes, starting with Student Deferment and National Manpower Policy, A Policy for Scientific and Professional Manpower, A Policy for Skilled Manpower, Womanpower, as well as several conference proceedings largely on problems of utilization.

It may help us to get some reconciliation of the two positions here, by my saying that I surely agree with those who contend that money will not solve everything. On the other hand, I would agree that you cannot just look for improvements in utilization to bring satisfactory solutions. The big trick is to be sure that in the expenditure of any new money, or even in the expenditure of old money, you get a better return than you are now getting. I feel very strongly that, as far as the Department of Defense goes, a budget of 3.5 billion or 5 billion for research and development is a very big budget for the present organizational structure to cope with effectively.

I refer you to Dr. Vannevar Bush's testimony of yesterday as reinforcement and Dr. Kelly's task force report for the Hoover Commission on research and development. It would be a big error for the

Congress to assume that it can buy security and progress by just appropriating additional funds.

On the other hand, I think Congress would be very remiss if, because it recognized that there are high orders of waste imbedded in the way in which we spend our present moneys, and in which we will spend our future moneys, that that is an excuse for it not appropriating any additional funds.

The big challenge, I would say to congressional leadership, is to try to use the solvent of new money to get a maximum possible return, not only on the new expenditures, but to improve the standards of performance on the old expenditures. I think there are many things that schoolteachers ought to be doing, and that our educational system can do to get more return per dollar than is the case today.

I still believe beyond that that we need additional moneys. It is between the two, between improving the supply and improving utilization, that you need to build a bridge.

Representative MILLS. I am sure the members of the panel could continue this discussion indefinitely, but I think that probably, since it is 12 o'clock, and we can conclude without an afternoon session, the Chair would certainly like to do so. In view of that desire, would it be all right with the panel if we desist at this point, and that I recognize Mr. Curtis, who I know has a number of questions.

Representative CURRIS. Thank you, Mr. Chairman.

I would first like to express my deep gratitude for the manner in which the panel has approached this very difficult field which is wrought with emotionalism to examine into it. I have been impressed to find that so often in this area, it is a battle of epithets, of being socialists on one side or being indifferent to human welfare on the other, instead of getting down to what the real issue is. I think there is no disagreement on the real issue.

I might say, Mrs. Ellickson, I don't believe in the Congress you will find any lack of recognition that spending dollars in this area is going to be productive to the growth of our society. The issue is, of course, how do you spend the dollar and get the best results. The traditional way of spending the dollar has been, I would say, more at the personal and at the family level. There is a lot of concern in the hearts of many people, and myself, as to what level the money should be spent to get the best results. The panel discussion has been on those issues, drawing them out. One comment I would like to make is that it seems to me sometimes the bigger factors are overlooked. In this field of welfare, I think the effect of inflation on all of these fields, the inflation of World War II, where the dollar was cut in half, has not been given enough attention.

I think if more attention were given to that, we would look at these programs a little more carefully, perhaps, and not just say that fiscal matters affecting expenditures in these highly emotional fields don't have to receive considerable attention.

I remember one of the panelists made this remark, or pointed out one difference between spending at the Federal level and at the State and local level, it was this: That at the State and local levels, you had the traditional methods of financing. At the Federal level, you could finance by creating more money, deficit financing. With the emotions that can be built up in these areas, the pressures, I assure you, on the Congress can be pretty strong.

I would just like to point out an area, for example, that I think has received very little attention. Although the papers point out the fact that real-estate taxes form the basis of the revenues for the local expenditures in education, yet what was the effect of inflation on real-estate taxes? It was this: that real-estate taxes are based upon assessments that are put on the books over a period of years, and yet the costs of the school board went up with the inflated dollar. The tax base, however, was largely on the preinflated dollar.

All right, people said, "Well, just increase your rate." But you couldn't do that, because the new homes, particularly the new people who have come into home ownership, have just gone on the books, and they are in the inflated dollar.

There is only one thing that could be done, and that is being done all over the United States. It is a very difficult, technical problem, and an even more difficult political problem: Reassessing every piece of real estate on the books. The damage of inflation to our people on the various relief programs, whether it is aid to dependent children, old-age assistance, or even OASI, the impact upon them is considerable.

I do not think this is important at the Federal level. We have to pay attention as to how we finance these programs, and we have to regard them collectively. We might get ourselves into the position, if we are indulging in deficit financing, where we might be doing more damage than good in the programs.

I have another comment. If we are going to analyze these things, and talk about at what levels the expenditures should occur for the best results of the dollar, we need to know what is being done in the private sector. Yet several of the papers have very clearly pointed out that we have very little information in this area, and we need to build up our statistics a great deal more. Just to talk about this we need that information.

There is one other point I would like to make which has come to my attention. One of our basic factors in discussing these things has been our cost-of-living indexes, which are prepared by the Department of Labor. Yet it seems to me that there needs to be a great deal of improvement in our cost-of-living index statistics because they do not seem to reflect the increased standard of living that occurs in there.

For instance, a house is a house whether it is 1940, according to the index, or 1957, and yet the same dollar will buy an awful lot more living.

On the cost of medical expense in 1957, \$1 spent, even with inflation, buys an awful lot more, because of the advancement of medical science and drugs. That series of statistics, in my judgment, needs to be developed so that we can measure what is really inflation and what is actually increased standards of living.

Those are just some comments that I wanted to get out for consideration in this area, things that bothered me, and one thing that this committee, I think, has been trying to look into. Your papers have been exceedingly helpful on it.

Now I want to approach an area where I will largely talk to Mr. Ginzberg, if I may.

Incidentally, I wish to say this, sir: I have read the publications of your manpower group, and I have them available. I have tried to call the attention of the Armed Services Committee to those publications

constantly, in our reserve programs and other military personnel programs.

One of the things that is most disturbing to me in all of this discussion of education, and what we need to do, is the fact that no attention was paid to the impact, and I suggest great damage, that has been done to the educational system through the peacetime military draft program, through the implications of universal military training. The Congress actually rejected UMT, and yet the military went ahead through the peacetime draft and actually did what they hoped to do with UMT.

The impact on the students at high-school level has been great. The uncertainty that exists in the teenagers' plans, along with everything else, in my judgment, has done much to disturb the educational process of America. Yet a thing which is that important has not received the attention that I would expect not only in these papers but papers of other panelists who have been discussing this very, very important feature of our growth and development.

I was shocked when UMT came on the floor of the House to go to educators and ask them what they thought of this training program—you talk about quality—and no one knew what the curriculum was. I tried to find out from the military what the curriculum was. What were they going to do with this young manpower for 2 years? No one knew.

In the debate on the floor of the House I asked those questions. To this day the questions still remain unanswered and apparently unexamined by people in the educational field.

We talk about quality and here we are turning over to the mercies of the Military Establishment, for a period of 2 years, all these potential students.

I have a few other comments, then I will turn this over to you, Mr. Ginzberg, but I wish to get these out, if I may, because I believe them to be so important.

In this question of vocational education, I have tried to raise this point before. I have raised it for years when appearing before the Appropriations Committee to urge that we do not cut back, but in fact beef up, if you please, our vocational educational system. Why?

Not for the traditional arguments, but I pointed out that the Military Establishment has moved into vocational education directly to a tremendous degree. They have built classrooms all over the country, competing with the civilian system for teachers and so on, and yet that remains unexamined.

I happen to feel that we can get a much better result if the Army, Navy, and Air Force want electricians and electronics people, welders, and bulldozer operators, that we can provide them a lot more cheaply and better products through the civilian educational system.

Until we start getting the military out of that with the direct-spending dollars, I don't want to see us hamped through a cut down in a grant-in-aid program the very organization that can take over and, in my judgment, might take over.

The final thing I wish to point out is this: Mr. Ginzberg, you pointed out, of course, the fact that the military found that there were a lot of boys that they couldn't use, because of lack of education and other reasons. The thing that impresses me is the other side

of the coin. Why is it that the military insists on an A-1 specimen before they can utilize him? They do give some lipservice to limited duty.

I say lipservice advisedly. But the other side of the coin is that: Why can't they utilize people with less skills and with less physical abilities? What area should the military be in? We completely changed the code of military justice because it didn't work in World War II. I suggested that instead of immediately changing it (being a lawyer I have a respect for the development of common law), that maybe the military laws that are developed over centuries of battle testing were all right for battle operation, but when you tried to apply it to some of the areas the military moved into it wouldn't work. Maybe instead of changing the code of military justice we ought to have looked to see "Do we need to have men in uniform and under military law perform these various functions?"

I would have thought an analysis from that angle would have been important in the same way that the physical test that the Army applied was important. It should have been reversed.

What is the Army trying to do? Do they want all No. 1 physical specimens, even though they might be sitting on a stool handing out clothing to the military?

Then there is the matching of civilian skills with the military needs.

The Cordiner report, incidentally, was a report for economy, to save money. It has been misinterpreted. People say you are going to pay them more. The whole theory of it was that by setting up good personnel practices you didn't have the turnover of your employees, and you did not have that economic waste.

Now, Mr. Ginzberg, I have made that long speech and preamble, but I wish to bring it up because of the studies you have made. Are these not areas which, if we do not go into, meaning the Congress, and with the people starting to understand some of these things, we are just not going to be able to spend these dollars effectively?

Mr. GINZBERG. I must say for the record that I still have another hat, but I do not know which one I will use in answering. I have been, and am today, a consultant on manpower to the Department of the Army. But I do not take any responsibility for the manpower policy of the Army. I need my connection to be on the record, but I want to talk in my university capacity.

Very briefly, I think that the first big point that you made, which was the influence of a draft system on the occupational and vocational planning on the youth of the country, had its most unsettling effects in the years of the Korean war and immediately after.

This was a matter of deep concern to the National Manpower Council. The more recent experience with low draft calls has made it possible for Selective Service to offer long-term deferments to any serious student. Although this matter is not cleaned up I would say the most intense, disturbing, and unsettling effect, which I think was very serious, is now over. It does, however, raise another issue. The Universal Military Training and Service Act expires in June of 1959, and I think it is well worth while to try to get as much public discussion underway of the alternative possibilities facing the country as the Armed Forces decline and the number eligible to serve increases.

The act provided for the military to work out proposals which would free them from the use of the draft. The Cordiner proposals, which you mentioned near the end of your statement, I think are important proposals for the Congress to think about carefully, because, although it will require probably some initial out-of-pocket expenditure, because the Armed Forces cannot turn themselves around on a dime, the basis of the Cordiner proposals are simply this: That the armed services are spending a tremendous amount of money on the training of skilled manpower. Depending on what figures you use, it costs somewhere in the neighborhood of \$200,000 to train a jet pilot in the first 2 years.

If you are going to lose him at the end of the fourth year and have to start training a new man all over again, it becomes a fantastically wasteful affair. The reason you cannot keep a large group of skilled men, all the way from the officer group to the skilled mechanic, is because of the severe competition of industry where the long-term outlook for a career is so much better than in the armed services.

Mr. Cordiner, in his report, set out a series of proposals for the armed services aimed at establishing a better personnel system, better assignments, better leadership, an improved compensation system for skill only, which within a 5-year period is more than likely to pay for itself. I personally believe that the general principles and directions of the Cordiner proposals make excellent sense.

The next point you raise, and I think it is important, is that few people understand that we have a three-pronged rather than a single-pronged educational system in the United States. We have the conventional educational system, and the military educational system, which, whether you like it or not, is colossal. The electrical industry, the aircraft industry, and many others have benefited greatly by the skill training of the armed services. A proper accounting system would reflect these benefits.

The third prong, of course, is the industrial educational system, which is very substantial. A sensible national policy would begin to think hard about the articulation and relationships between these several parts.

Our neighbor to the north, Canada, has followed in part along the lines you suggested, believing it more efficient and expeditious for civilians to train the technicians that the military needs before men are called into military service. We have never taken a hard look in this country as to what the armed services ought to do and what could be better done outside. This is the more important in light of the permanent expansion of the armed services after World War II.

Representative CURRIS. We actually went backward to a degree. The Navy procured bulldozer operators, for example, from the civilian society in World War II. When the war was over, they set up their own bulldozing operating school.

Mr. GINZBERG. I believe that is right.

The next point relates to changes in the standards for acceptance for the Army. You raised that issue. Psychiatric screening standards were lowered because we realized that World War II standards did not make sense. Physical standards have not been altered much. But on the educational front, and I am basically in agreement with them, the armed services came in the last session of Congress and asked for relief. They wanted to raise the educational standards.

The reason they wanted to raise them was that they have an ample number of people who can do the unskilled jobs, but they are short of people that have the educational capacity to acquire skills rapidly. This difficulty is one that the Cordiner proposals hope to reduce by better retention of trained men.

I think in general the Pentagon should be encouraged in every possible way to try to move away from the draft, to try to cover their manpower needs by volunteers, civilians, and contractors, and to tell Congress what additional help they need in order to get away from the draft.

Representative CURTIS. Thank you very much.

Mr. COHEN. I think this discussion, Mr. Curtis, has demonstrated an important point. This session we had here is an important, almost historic one. In my recollection, there has not been an opportunity in the Congress at any recent time to consider the interrelationship of these policies of health, education, and welfare in relation to national defense, international policy, tax policy, manpower utilization, and research. I think this discussion that you just had indicates the great contribution which your subcommittee has made to this. I would particularly like to emphasize the importance of it. We have just touched, as you have indicated, on a whole host of problems that we have not been able to explore.

I would hope that it would be possible for either the Joint Economic Committee or the Congress to do this periodically. I think these health, education, and welfare policies impinge upon the tax resources of the State, on your responsibilities in the Ways and Means Committee, on the competition for manpower in the future, and the competition for research facilities, and into the whole field.

I am aware of this problem, because I have worn another hat at one time. I have been the research director of the Compton Committee on Universal Military Training. So I am quite aware of the problems that you mentioned.

May I say that while that is 10 years ago, I really think very little progress has been made in those 10 years on thinking through the interrelationships between education, manpower, and research, and national security. I would like to see some mechanism to be considered by this committee for furthering this interrelationship.

Representative CURRIS. I thank you for that suggestion.

I felt that one reason the Joint Economic Committee has lent itself to this kind of thing is because we are not a legislative committee. We actually can try, at least, to get into these things objectively, and get out what factors we do know, and then pass on our work to the legislative committees.

Mr. STRAYER. I would like to make one comment about the property tax in addition to those I have already made. I think your point is well taken, that inflation has left assessed values lagging. But I think it also reflects an attitude of the people. There are a lot of economy-minded groups that would rather see the tax rate go up and assessments go up. But there is still another problem that is acute pretty much across the United States: That is the very poor job of assessment which is being done in almost every State. New Jersey is now in the throes of trying to find a new basis for assessment, but in the town of Princeton, I had a study made just a year and a half ago, and I found properties assessed at 10 percent of market value as represented by

sales. I found other properties assessed at 85 or 90 percent of market values as represented by sales price.

When you have a tax that is as badly administered as that, there is going to be reaction. There is bound to be. Until we find some handle, and you are running into local vested interests, elected assessors, county equalization problems, and all the rest, it is going to be a declining base.

Representative CURTIS. That is one reason I have always felt the Federal Government owes one thing to a strong economy, to do its best to preserve a stable dollar. If we mess with the measuring stick, it would cause so many other damages it is hard to figure it out. That is why people ask me why I am in the economy bloc. That is the very basic reason. I hope I am as humane as anyone else but it seems to me that these damages that come out the other way through inflation are so great and so hard to counteract. At least until someone points out to me that these damages are not as bad as I think, I am going to continue to concentrate in this area.

Mr. STRAYER. Certainly, Mr. Curtis, your academic audience is with you on that.

Representative CURTIS. That is all, Mr. Chairman.

Representative MILLS. It is growing late and time for all of you to begin to think about lunch, and getting back to your other responsibilities. I will not delay you long.

First of all, I have been somewhat concerned over the degree of the imbalance that this panel seems to feel exists between the development of the material resource and the human resource here in the United States. Although we have, as far as the Federal Government is concerned, apparently gone into every facet of human development, the size of the program that many of you outline that remains to be done by some element of Government or the private sector is stupendous.

I think also Mr. Curtis has properly advised the panel that there is no lack of appreciation in the Congress or failure to understand the necessity of the development of the human resource. There is concern, always, as to how these resources will be developed.

I wonder if there is some thought within the panel that merely the use of Federal money to alleviate the present imbalance that may exist carries with it dangers that we must guard against if we are to use more Federal funds for this purpose. I see Professor Ginzberg nodding his head.

What are some of the dangers that we may look for and try to avoid if we take the step that has been suggested here of spending more Federal money in this regard?

Mr. GINZBERG. I would say first that for myself I would prefer to see no Federal scholarship program if it became a categorical program only for scientists and engineers. It would be better, in my opinion, not to go into an undergraduate program, because I believe that the distortions, and this goes back to Professor Cohen's earlier point—I don't want to commit him to this position, but he talked along these lines—I think the distortions would be greater than the net contribution.

I refer you to what happened in World War II, when the Army's specialized training program (ASTP) offered opportunities to the bright young men in the services to study engineering. It was some-

thing of a bribe. It represented the use of pressure, admittedly for a good national purpose.

Many responded to the pressure and entered the program but a high proportion did not stay with engineering once they could exercise free choice. It was, I think, a bad thing to do, specifically, and very questionable for the long run advantage of the Nation. If we lose our balance as to what the long-run national security interests of the United States really consist of we will be in a very serious situation. I think they go far beyond training a few or many more engineers and scientists.

The second point relates to making large additional funds available now for certain kinds of crash programs without altering the management that currently exists in the direction of research and development programs. Such action could compound the difficulties.

Dr. Bush testified yesterday about the wastage resulting from the excessive rivalry among the services. If each service were to have still more money, the wasteful competition might only be accentuated.

Such has been the case in the aircraft industry for some time. One-fourth of the engineers leave the company they are with every 2 years. That is a fantastic waste of skilled manpower. I ascribe that in part to ineffective personnel policies and improper controls over contracts.

The third challenge, I would say, is the failure to analyze the dilemma of the universities which, interestingly enough from many points of view, is worse than the dilemma of the lower schools, though probably the weakest link in the entire chain are the secondary schools.

As I see students coming through, they learn very little in elementary school, so the secondary schools have to go slowly, which, in turn, forces the colleges to move slowly. As a result, the products of the colleges, who go back and teach in the lower schools, are inadequately prepared. If you have to establish priorities, I would think that the best return would be larger investments in the colleges. At the present time, the Federal Government is putting into the universities, as I indicated earlier, almost one-half a billion dollars a year through research and development contracts.

Only a few, however, are involved: MIT, Columbia, and Chicago, and the other major institutions. I think the Congress should explore what is likely to happen in the longer run to the private and State university structure of this country if we don't take action. I think the problem should be clarified first before additional money is made available—but action cannot be long delayed.

To pour still more money into selected universities to do still more applied work on certain crash military programs will not give us the long-run improvement in our scientific position or in our trained manpower.

Let me illustrate: If we have more and more engineers and only a very few people who know anything about Russia, that will be very wasteful. We may be better off to invest a few more dollars into training and employing Russian linguists to translate their works, than to produce some thousand additional engineers. There are many problems of the balance here. I would say that on all future programming before one moves to spend additional dollars one should

undertake as careful analysis as possible as to the current utilization of the dollars one is using so as to see more clearly where the investment of additional dollars would make the most sense.

Representative MILLS. Dr. Ginzberg, if our situation is such at the moment that we may have fallen behind in the development of the human resource, how much time do we have to make these corrections before additional money is spent?

Mr. GINZBERG. I would begin to spend it just as quickly as I could get clarity. The only thing I don't want to do is spend it blindly. I could develop a program immediately where you could spend money intelligently, because I have studied X number of problems. But there are many about which I am in the dark. I have not studied them.

I would say, however, that it would be a mistake to panic because of sputnik. It is my firm belief that our total position, vis-a-vis the rest of the world, was weakened more by Little Rock than by sputnik, and until we understand that, we are unlikely to know how to cement our relations with Asia and Africa, and even with Western Europe.

If I may say so, I believe that Senator McCarthy did more to weaken the defense position of the United States by undermining the morale of our foreign personnel and by unsettling our friends at that time—I traveled abroad for the Government—than any other single factor.

Until we understand that the question of our Nation's strength is only in part a function of the money we spend, but involves our total moral and political position, I don't think we are going to gain very much by jumping off and spending huge sums on crash programs.

Representative MILLS. Professor Long?

Mr. LONG. My conversations with scientists have given me the impression that this country is actually on the whole in a very good position so far as the strength of our education at this moment, and we have, I think, probably a number of years, if we use them wisely, in which to operate.

We just don't have to go out on a crash educational program. I doubt very much whether it was the immediate lack of scientists that was the cause, let's say, of our falling behind the Russians in missiles. It is awfully important in a society such as ours to offer a well-balanced curriculum. It is important to have good business executives. Every field will tell you that they never have enough good men. I don't care what field you go into, whether it is engineering, whether it is education, whether it is economics, the lament is, "We are not getting enough good men," and, of course, the basic reason is that there are not enough good men to go around. There are not enough geniuses.

The great virtue of an economic system such as ours is that we will probably not make mistakes of the kind that a country like Russia could well make, where they just throw enormous amounts of resources into certain areas which enable them to make great successes, but which may also result in great weaknesses in other areas.

A good example of that was Germany, which did a very bad job of imbalanced military preparation. It was impressive for a while, but in the end it betrayed them. We have to try to develop talent of all kinds in all areas. I think we have enormous numbers of people in our society who have not been developed, whom we need to try to

get into our educational programs. I don't think, again, it is entirely a question of money. In a lot of cases it is a question of character. This is a word that isn't used very often any more, but I have been impressed all my life with the fact that character is a tremendously important thing. I would regret very much to see people given a free ticket, a completely free ticket. I would like to see them given loans, I would like to see them given opportunities. But I would like to see people pay for their education wherever it is possible.

I think they will appreciate it and do a lot more with it if they do. I think if our Federal Government goes into education on a considerable scale, and I hope very much that it does, it should try to make people pay their way as far as they can.

Representative MILLS. Dr. Bowen?

Mr. BOWEN. In answer to your question, Mr. Mills, another point should be added; namely, that local autonomy in the conduct of our social services is a value that a great many people place fairly high in their scale of priorities.

I think that there is a great deal to be said for local self-determination on matters of education and social welfare. It seems to me that one of the compromises we must make in the future is the compromise between this value of local self-determination or local autonomy and the value of getting an important national job done.

I, for one, would hope that we would not lose sight of the values of local autonomy.

Mr. COHEN. In answer to your question, Mr. Mills, I would like to say—this I think goes along with what Mr. Ginzberg said—I think it is extremely important that Congress and the State legislatures and other people concerned, give attention to the longer run program than merely the program for next year.

I have just finished a survey in the State of Michigan on manpower resources. It has appalled me to think that our State agencies and our universities and other people are not in a position to plan beyond the next year or two. There is an immediate crisis affecting everyone. But you cannot produce an additional doctor in the United States in less than 8 or 9 years, if you want to increase your net supply of doctors. If you want to increase your supply of physicists and people to teach in the universities, you have to think of 7, 8, or 10 years ahead. There, I think, is our main lack at the present time, and where our danger may be, that we will go into a crash program of some sort that may produce a small amount of people that will make quite a stir for 1958 or 1959. But I think our real problem today is 1965-67.

Unless we develop policies that will produce the quality of people and the number of people 10 years ahead, I don't think we will be able to keep up. So I think it is important to not be panicked into a short-run program which will be of great disadvantage to us in the long run.

Representative MILLS. I have some difficulty trying to determine how the Federal Government can solve the problem through increasing Federal funds. Somewhere along the line there is created by some source, I hope outside of Government, a will to do a certain thing. I have been listening this morning to discussions that were not very encouraging about some of the problems that exist with

respect to school curriculum. How can we stimulate the imagination of the youth? How can we challenge the imagination of the youth to desire to undertake a more rigorous curriculum than that which you say too many now take, with the result, as Dr. Ginzberg described, of the individual coming into the college perhaps less prepared and leaving it to go back to teach even less prepared. There is more to it, as I see it, than merely us saying that because of the difficulty we have today, something has to be done by the Federal Government. I wonder whether the Federal Government, first of all, can fire the imagination somewhere along the line in order to get the individual to accept the challenge of the study that is required to do these things.

Mr. STRAYER. Mr. Mills, I have a very strong feeling that one of the most important things we can do is to get inspired teachers. As Mr. Corey was pointing out, most teachers in the elementary and high school level not only could earn more by being a truckdriver or a stonemason or a bricklayer, but many, too many of them take supplemental jobs. This is quite a common occurrence. This means they are not devoting themselves to their primary responsibility. It is because of low pay. You cannot raise a family on \$4,000 and have any status in your community without supplementing your pay. So I think right at the beginning, if we could improve the quality of the teachers we would do one very important thing. This means getting topflight people, and paying them accordingly.

Secondly, I would like to differ a little bit with Mr. Long in saying that certainly one of the barriers to further education, and this occurs in the last years of high school and certainly at the college level, it is the pressure of the family to have that boy or girl go out and supplement the family income.

I would say I wouldn't want to stress too much the need for him to exhaust the family resources, or to incur heavy indebtedness. After all, there is a social purpose that is being served, the service of the Nation, raising more qualified people to do the jobs required by our modern and increasingly complex society.

I want to add just one further word. It seems to me that a good part of what we are talking about reemphasizes the need for a broad education. Certainly one of our failures has been the lack of public understanding, which comes from lack of understanding of the role of government. It comes from the lack of political sophistication. It comes from the lack of leadership. I would not want to depreciate, but I will go along with Mr. Ginzberg and others, and say that the work of the economist, the historian, and so on, are just as important, in bringing in a democracy to face the problems it must face, as is the work of the scientist.

I think it would be a terrible mistake to have a crash program for scientists and physicists, and neglect the fields which are usually held by people in other professions.

Mrs. ELLICKSON. I think the question raised by the chairman on how you get youth to apply itself is a very important one. As a parent of two teenagers, I see something of the young people, and I believe they are somewhat confused and bewildered and frustrated by the society in which they are growing up. One reason why I stressed human values in my statement as compared with material values is that I

think it is possible to appeal to these young people and to renew in them faith in the traditional ideals of our country.

The wave of advertising on TV and radio, to which they are all exposed, emphasizes material things. Leadership from Congress and from other political leaders in terms of what our country stands for, in terms of the fact that it is worth sacrificing for, in terms of a unified program, will help arouse their loyalty. As part of this, we have to take action to wipe out the conditions which horrify them today. Maybe some of you read the New York Times article on the tough schools in New York, with its picture of young people growing up in New York slums, and what they are up against.

As part of our program we need to take steps which will remove poverty, which will bring tolerance, and which will help make the young people put forth the effort that the Russians can inspire in their young people.

MR. CAMPBELL. I would like to comment on your question.

First, along with all the other members of the panel, I also believe that human resources are an investment. The first point I would make is that I think we are a little inclined to lose perspective on how much investment we are already putting into human resources. One of the big problems of the current day, of course, which tends to limit how much we can do on many things, is the tremendous military outlay of the Federal Government. You take military expenditures, for example, out of the economy, and compare expenditures on education with the national income of the country, minus military expenditures, and you will find that the percentage increases from 1.7 percent in 1902 to 6.6 percent in 1956.

Incidentally, the percentage has been increasing quite rapidly in the last 10 years. I don't want to argue that this is necessarily all that we should spend on education. All I am saying is that we should have some perspective on this question, and recognize that the amount that is being spent in the educational field, at least, is being increased substantially.

If I may backtrack a little bit, I think that to a large extent what this does is to support Professor Long's proposition: That the problem is not necessarily quantity, but, rather, quality.

On the question of pay to teachers, I used to be a college teacher myself, and there were several reasons why I left college teaching, one of them being pay. But I must say that it was far from being the only reason. I think what has happened in this field, at least in the elementary and secondary levels, is what is happening in society as a whole. The differential between what we might call skilled labor and unskilled labor has greatly narrowed. What you find is that the unskilled laborer is being paid in many cases almost as much as the skilled laborer nowadays.

For example, I don't think that the pay of teachers has gone up any less than the pay of representatives in Congress since 1940, if I may use that as a comparison. Similarly, there are a lot of grounds for believing that the pay of teachers has gone up as much as many people in professional services, including in many cases engineers. What you have is something different. We have narrowed the differential between the skilled and the unskilled. As to whether that is a desirable trend or an undesirable trend, I don't want to argue at the

present time. I personally think it is a very undesirable one, but that is what has happened.

The third and final point that I want to make is that in all of this discussion of the crisis in higher education, or in practically all the discussion, the concentration has been on what the Federal Government can do. I personally would have liked to have seen a little more concentration on what could be done through the traditional methods of financing higher education.

I sympathize with Professor Bowen's problem in raising that million and a half dollars for his library. I also work for a nonprofit educational institution. I know how much work we have to put into the raising of money. But I think we are better people as a result of it. If money came to us altogether too easily, there might be a tendency for us to get a bit on the lazy side.

In terms of voluntary methods, there is in the financing of higher education the question of deferred payment for a college education. I myself am impressed, for example, with how much the increase in tuition, on the average once again, has lagged behind the increase in per capita income from 1940 to the present day. I think the President's Committee found for the 10 years from 1940 to 1950 that per capita disposable income—and I can check this and correct the record later if that is all right—went up approximately 135 percent, whereas tuitions only increased about 50 percent. Since 1950, I think tuitions have been increasing at least as fast as the increase in per capita income. What I am suggesting here is there could be further substantial increases in tuition. There are a lot of people in this great Nation of ours who are not paying nearly as much for higher education as they could be paying. We can make use, for example, of deferred-payment techniques, where the people who cannot afford to pay at this moment could defer their payment—and particularly in the cases of dentists and doctors, who have a long number of years of education. Before we have Federal aid to medical schools I think there are a lot of traditional methods of financing medical schools that can be explored.

Similarly, when we discuss deferred-payment techniques and increases in tuition, I think we should realize that a part of the increased income could be used to provide scholarships and student aid to the children who simply cannot afford either one of these methods.

I could go on talking about this subject almost endlessly. I believe I have said enough, however, to make my point.

Representative CURTIS. I ask permission to make a point here. I was hoping to get into some discussion of this deferred-payment plan. The figures that some of you put into your papers in regard to the returns on education indicate to me that here is an area where a lot more can be done. It has to be coupled with some sort of insurance, in the event the person has an untimely death. As far as I am concerned, if it is necessary to get something like that started to prove its economic value, I don't hesitate in saying that the Federal Government might be the organization to bring that about. But I thought that the data that is available on what is the economic return in the way of salaries and wages of people who get a higher education is such that we should look into it. If we can get deferred payments for trips to Florida, and so forth, surely, even though it is a more complicated problem because you have to defer it more, you cannot pay it back

in 12 months, but it must be, perhaps, a 10-year proposition, we should look into it.

Mr. COHEN. I think this relates to what you, Mr. Curtis, just said and what Mr. Mills said. I do not think it always necessary for the Government to spend a great deal of money on some of these things. But the Federal Government can well set the psychological climate of opinion, in which many of the factors that we are talking about can induce or encourage, or discourage, people.

I think, if you develop a tax policy that would do something to accelerate educational potentialities for some people, it is not simply that you are giving a tax advantage, but you are creating a psychological effect of indicating that the Federal Government thinks this is important. So I would like to see, Mr. Mills, various ways in which these elements were built into tax policies, perhaps into specific statements of congressional intent, just like there is in the Full Employment Act, because, to me, they create public opinion. They create the objectives by which Congress is defining the goals which we want to reach. I believe, too, that it is not only a matter of money, but we should have a congressional statement of what these objectives and aspirations are.

Representative CURTIS. There is one other factor that I know is inherent in this, and some of the papers brought it out. I am aware of it from some personal experiences. That is the fact that we are missing, to take an institution like Dartmouth College, which I am familiar with, about 200, I guess, out of a class of maybe 800 that we would take on the basis of ability to absorb a college education, which we have to reject because of finances.

So, it is the lack of educational facilities for the better talents, those who could not afford to go, which, to me, is a disturbing thing. Something like a deferred-payment plan, or, as you suggest, these other devices, would seem to me to be a lot better than getting into this business of having a Federal scholarship program, for example, where you set up tests or committees to determine who is to go.

I think that incentive that Dr. Long points out is very basic in this thing. They have to want to go and be willing to make some sort of sacrifice to go, or it is not worth as much.

Representative MILLS. Mr. Ture, do you have anything you would like to say?

Mr. TURE. Thank you, Mr. Chairman. Several of the panelists, in discussing this problem of providing adequate resources for education, have framed the problem in terms of population movements. Mr. Corey, your problem, apparently, is a great influx of population from other parts of the country into California. Others referred to the suburbanization problem, the fact that people will be attracted to a metropolitan area because of the rise of new industries there, but will not live within the jurisdiction where the industries are located, but in another jurisdiction, which is contiguous in a geographical sense.

The implication of this contention that population movement is a source of increased cost in education is that, since there is not a single geographically demarked jurisdiction involved, the problem becomes one for a higher, broader jurisdiction to assume. I wonder if there isn't this basic difficulty involved.

Let us consider what factors a person who is contemplating moving, say, from the city out to the suburb, or from the State of Illinois to the State of California, ought to take into account in determining whether or not it is appropriate for him to make that move.

He will use some sort of an economic calculus to figure out what kind of benefits he will get out of this move, and then try to measure what it will cost him. One of the things he ought to take into account in measuring what it will cost is the kind of facilities he can provide his family for education, recreational outlets, and so forth, and at what difference in cost.

Suppose that some sort of policy measure is adopted which concealed from him these cost differentials. Suppose, for example, that, when new industry comes in from a metropolitan area, people are attracted to that area but, instead of deciding to live in the jurisdiction in which the industry is located, they decide to live out in the suburbs ignoring the additional cost of education for their children, and for the roads going out, and transportation in and out of town, and all the other public facilities required, assuming these are no greater than if they lived in the jurisdiction where the plant is located. Wouldn't this result in a substantial diseconomy for the society as a whole? Isn't this a very grave danger to be watched for in any kind of program, whether at the Federal level or at the State level, in providing assistance for improving such programs?

Mr. COREY. You brought up a problem which has relatively serious implications in population mobility. In our case, the situation has not been a choice as to whether people should live in the city where the industry is, or whether they should live in a suburban area. The only place they could go was the suburban area. I mean by this that this is where the growth was, because this is where the homes were available.

It is not a choice between, "I am going to live in town," or "I am going to live outside." The choice is limited to where there is a place to live.

However, I don't discount at all the point you make. In situations where this is going to be a choice, it will have an effect.

Mr. TURE. Wouldn't it be wise for the State of California to announce to the rest of the country at large that, "If you want to move to California, we would love to have you, but you are going to find it very expensive to educate your children," or simply in real terms, that the amount of resources required for education will have to go up sharply?

Mr. COREY. All they have to do is look at the tax rates. They are all published, and they are mighty high.

Representative MILLS. Mr. Campbell?

Mr. CAMPBELL. I would like to say that I agree with Mr. Ture.

Mr. STRAYER. Mr. Ture, I would be very hesitant to take on the real-estate developers, the desire of people to have a home rather than an apartment, and I wonder whether we can. I think your point, as to the costs in California, is a valid one, but people will still come and in large numbers.

It is complicated, also, by the fact that there are some areas that are going to have surplus school buildings which can't be moved. That is an unfortunate result of this growing mobility of the population. But you can't move a school building.

If people do have a desire for a piece of grass and a prefabricated home, are we going to pass laws that prevent them from having that sort of pleasant, somewhat more amenable, living, rather than being in crowded city streets with the traffic congestion and so on?

Mr. TURE. The kind of problem I was thinking of was that which Mr. Campbell suggested before as a Montgomery County resident. I am a Montgomery County resident, too. I will affirm what he said about the problem of the schools in Montgomery County.

One of the problems, of course, stems from the fact that Montgomery County has been growing very rapidly indeed. I wonder whether or not Montgomery County would have grown so rapidly or would have grown at a more balanced rate with the facilities available, if, to take a single illustration, the State and Federal Government had not contributed so generously to Montgomery County with respect to roadbuilding, which made it possible for us to live way outside the District of Columbia, and to get here to work in 20 minutes.

The costs, in other words, for me to become a resident of Montgomery County, were considerable.

Mr. COHEN. I am a former resident of Montgomery County. As I look back on it, I think the problem that Montgomery County and countless other counties in the country are faced with is just going to continue and to multiply.

I think this is the basic fact, perhaps, Mr. Corey and I emphasized in our papers.

I see no way that as long as we treasure this mobility, geographical occupational and economic mobility in the United States, that we do not have to pay a price for it in tax funds, construction of roads and buildings, and so on.

Perhaps a more orderly and sound method could be developed if we had a more coordinated policy. It is true that the highway policy did not give adequate consideration to the social, educational, and other economic implications of building interstate highways straight through properties which changed the whole character or recreation, of property assessment, of schools and of community facilities.

We just have not yet developed in this country, and are not doing so now, the appropriate interrelationship between the highway program and the vast amount of social services that are needed: Hospitals, schools, playgrounds, and all of the other things.

So, insofar as your appeal is for a more coordinated program in thinking these things through at the National, State, and local level, I am very heartily in favor of it. But I must say that I do not see very many signs on the scene right now today, where there is a great deal of this coordinated approach to our common problems in the communities.

We think of highways as if it were a completely separate problem. Yet, it is closely related to schools and communities' facilities.

Mr. COREY. May I have one more word?

Representative MILLS. Yes.

Mr. COREY. It bothers me a little bit. this conception that certain people choose to live in the beautiful country and others choose to live in the city, and the ones who choose to live in the beautiful country should be penalized therefor.

This does not appeal to me. It is not a matter of choice. The population of this country, according to the best estimates of the people

who study such things, is going to continue to increase. The cities are increasing in population, too. These people will have to live somewhere.

As the communities spread out over new areas, and there are new geographical subdivisions, we cannot adopt a public policy that simply, because it is a new area—these new areas are almost always populated by young people with young children—that we will make it tough for them to develop human resources, because they happen to be living in a certain place. Most of them have no choice.

Mr. STRAYER. Could I add one discouraging word, too?

Representative MILLS. Yes, Mr. Strayer.

Mr. STRAYER. As I see the situation we have to face, one of the greatest headaches has not been mentioned at all, and that is the possibility of some substantial recession.

If, and when this occurs the States are going to be bankrupt because they are already fully extended. It is going to be very difficult to increase their tax levels in the face of an economic decline.

I would put in a very strong plea for consideration of ways and means of supporting normal State and local services rather than emergency programs operating at a Federal level. I think this is one of the things that could be done that would do more good to support adequate, independent State and local administration of schools and highways, of welfare facilities, and so on than any other single thing that could be done.

Yet, because we have not planned it, we may come in with a WPA or a PWA where you have a post office built in the town of Meredith, where I happen to go in the summer, that is not at all needed and an antiquated high school built in 1850, maintained across the way. It would certainly have been much more sensible to have developed the high school rather than the post office, but because we have not planned, we are in danger of facing that type of problem once again.

I would put in a very strong plea for consideration of ways and means to help out the States and local governments in the event of any substantial economic recession.

Mrs. ELLICKSON. Could I add a point to that?

Since this is the subcommittee of the Joint Economic Committee, created under the Employment Act of 1946, it seems to me one should go further and say that there is a particular responsibility here to make clear to the people and to the Congress that a decline in employment opportunities below the maximum, which the act sets as a goal, is a tremendous loss to the people in economic terms, far greater than the size of the sums we are talking about.

I have seen an estimate that the Nation has already lost \$15 billion in potential production because we have not maintained maximum production, employment, and consumption.

Representative MILLS. Does anyone else have a comment?

Mr. CAMPBELL. I would just like to make a brief comment on Mr. Ture's point.

At least from my point of view—and I don't know whether Mr. Ture would agree with me—the thing that bothers me is not that we young fellows with children are being penalized, but it is that we are not being required to shoulder our fair share of the burden.

Rather than making us work a little harder and pay a few more taxes—don't get me wrong, Mr. Chairman. I think as an individual I pay more than my fair share.

Representative MILLS. The record is straight now.

Mr. CAMPBELL. We should, as a group, be required to pay sums more nearly approximating our fair share of these taxes. Montgomery County should not expect the Federal Government to bail it out. This is quite a different concept.

Representative MILLS. I gather, since your papers were written before October 4 and November 3, that you were rather fixed in your viewpoints, that is the majority of you, and that we could not, in a re-study of Federal spending programs find some of the resources used for human development that could be diverted to some other use.

Therefore, there should be no reduction in this area of Federal spending.

This morning, in your statements, I see that most, if not all, of you, cling to that viewpoint, even with these developments of recent weeks. So it would be the recommendation of this panel that there be no reduction in the resources presently devoted to these governmental activities that inure in the direction of the development of human resources; is that correct?

Evidently, that is your opinion. You would add this, then, to the list of outlays that we may have to enlarge as a result of the developments in the defense program. Here we may find an area that not only cannot be cut, but that may, of necessity, in some ways, have to be increased over the next few years.

I know, Dr. Campbell, that does not conform to your view. Is that the viewpoint of the remainder of the panel?

Mr. LONG. With this proviso: By all odds, national defense should be the first priority, because with adequate national defense we gain the time to do these other things. Also, some of these things are an integral part of our national defense program.

I would not want to keep our national defense expenditures at the present level if this was the price we had to pay for our maintaining our welfare expenditures.

Representative MILLS. I did not intend that that be the interpretation of the remarks. I was raising the question: If it should become necessary for us to increase our defense outlays, it might well be necessary in the opinion of the panel, for us also to increase our outlays for the development of human resources.

Is that the opinion of the members of the panel?

Mr. GINZBERG. I would go so far as to say that the right dollar expenditures, if you knew what you were doing, could buy more defense by investments in human resources than in more hardware. That is the best way I can put it.

Representative MILLS. I think I would agree with you completely on that statement.

Mr. COREY. I would say, as it has been said many times this morning, we need to study very carefully how we are going to spend Federal money on human resources. We ought to study just as carefully how we are spending it on defense.

Mr. CAMPBELL. I will put in a proviso. To answer this, specifically, I mentioned 2 or 3 relatively small Federal grant programs that I thought could be reduced and 1 rather large one where I thought some reductions could be carried out; namely, the old-age-assistance grants.

Representative MILLS. Do you mean politically or from the point of view of economics?

Mr. CAMPBELL. I think you are in a better position to judge that, Mr. Chairman.

Mr. COHEN. We happen to have two members of the Ways and Means Committee here.

Mr. CAMPBELL. What I would say, however, is that on balance I also favor an increase in expenditures on human resources. Where I disagree is on the seemingly great emphasis on the increased role for the Federal Government. I think State and local expenditures and private expenditures should be increased. They are being increased. I hope they will be increased further. I also hope the money will be much more effectively spent than it is at the present time.

Representative MILLS. Dr. Campbell, I share your view completely, that the State and local governments should make these expenditures in this field. But what puzzles me is what we will do if they don't.

Mr. CAMPBELL. Well, in some cases, and this I say in all due respect, their judgment may be at least as good as that of the National Government.

Representative MILLS. Well, it is possible. I have known their judgment to be a lot better than some of our decisions here.

Mr. GINZBERG. I would like to come back to the point I made in my original presentation. The Federal Government being responsible for the defense of the country, not even mentioning the Employment Act of 1946—must check on the behavior of the States, and determine whether by their failure to act, they are jeopardizing the future security of the Nation. If so, the Federal Government must act.

Mr. CAMPBELL. I thought the Federal Government was a union of our 48 States.

Mr. GINZBERG. But it has specific responsibilities.

Representative MILLS. I would think that the Union of the 48 States would resent its agent, the Federal Government, not doing those things that were required in the defense effort.

Mr. CAMPBELL. I agree completely to that.

Representative MILLS. What I had in mind was this: If it should become essential, as we move ahead, and we are told it will, that we take some action at some level of government in the further development of human resources and States and localities do not perform what I consider to be their function in that respect, then the question is, what do we do about it?

Mr. COHEN. I think you can meet the assumptions that you have stated within our constitutional and political organization by a further utilization of this Federal grant-in-aid device.

Representative MILLS. That is a device. Pardon me for interrupting, but my question is more basic. Do we move in through some device at the Federal level if we are led to believe that the failure of the States to perform their initial function in this respect is jeopardizing the ability of the Nation as a whole to defend itself?

Mr. COHEN. I think the answer to that, sir, must be, yes, in principle.

Representative MILLS. Would you agree with that, Dr. Campbell?

Mr. CAMPBELL. Yes, but only on an ad hoc basis. What disturbs me this morning is that people want the Federal Government to move in, if I may use the country phrase, all over the lot.

Representative MILLS. I have been disturbed about that for 20 years. But I see that now the situation is such that we are asked to move even further. Is there agreement on the panel with respect to the last observation, to which Dr. Campbell already agreed?

Evidently so. Thank you Mrs. Ellickson and gentlemen, very much for the contribution you have made to our compendium. As you know, this subcommittee never argues with anything that is said, either in a paper or orally, to it.

Our purpose is always to adduce from the panel such information as you may be able to shed upon very complex problems that are always and forever facing the Congress.

We thank you very much for your contribution.

The subcommittee will stand in recess until 10 o'clock tomorrow morning, in this room.

(Whereupon, at 1:20 p. m., the subcommittee recessed, to reconvene at 10 a. m., Wednesday, November 27, 1957.)

FEDERAL EXPENDITURE POLICY FOR ECONOMIC GROWTH AND STABILITY

WEDNESDAY, NOVEMBER 27, 1957

CONGRESS OF THE UNITED STATES,
SUBCOMMITTEE ON FISCAL POLICY OF THE
JOINT ECONOMIC COMMITTEE,
Washington, D. C.

The subcommittee met at 10 a. m., pursuant to recess, in the Old Supreme Court Chamber of the Capitol Building, Representative Wilbur D. Mills (chairman of the subcommittee) presiding.

Present: Representatives Wilbur D. Mills; Thomas B. Curtis.

Also present: John W. Lehman, acting executive director; Norman B. Ture, staff economist.

Representative MILLS. The subcommittee will please come to order.

This morning the Subcommittee on Fiscal Policy, in its study of Federal expenditures for economic growth and stability, turns to the question of Federal expenditures for transportation, with particular attention to highways and other public works. These programs are compelling of our interest, not only because of their size but also because they may in so many cases promptly affect the total levels of economic activity throughout the country and the economic potentials of particular regions within the country.

Each panelist will be given 5 minutes in which to summarize his paper. We will proceed in the order in which the papers appear in the compendium, and we will hear from each panelist without interruption. Upon completion of the opening statements, the subcommittee will question the panelists for the balance of the session. This part of the session in preceding panels has been informal, and we hope it will be equally so this morning. All members of the panel should feel free to participate—commenting on papers presented by other panelists, on subcommittee members' questions, and raising questions of their own.

The first statement will be given by Dr. Burton N. Behling, an economist with the bureau of railway economics of the Association of American Railroads.

Dr. Behling, you are recognized.

STATEMENT OF BURTON N. BEHLING, ECONOMIST, BUREAU OF RAILWAY ECONOMICS, ASSOCIATION OF AMERICAN RAILROADS

Mr. BEHLING. Mr. Chairman, I would like to say, first of all, that when I read the subcommittee's outline I was very much impressed with how very pertinent the questions in that outline were to conditions and issues in transportation.

The fact that questions such as those presented by the subcommittee so persistently come up with respect to Government expenditures on behalf of transportation indicates a real need for better testing of such expenditures in economic terms. Basically, the problem is the allocation and utilization of resources in transportation for true economy, considering all the costs incurred.

How can Government programs be conducted and financed so as to minimize interference in decisions by business and consumers regarding use of transportation resources?

In all too many situations, lack of a sensitive connection between spending for and paying for transportation facilities provided by the expenditure of Government funds obtained from general tax revenues is the principal defect. In these circumstances the costs have little or no influence upon those who urge Government expenditures for their own advantage in commercial or private transportation operations. Those who seek the provision of transportation facilities for their use and advantage do not represent a true "demand," in the economic sense, for this concept has meaning only in relation to a price or cost. For example, when a steel company, or oil company, or coal company, or perhaps all these and others similarly situated promote a waterway improvement at taxpayers' expense, they do not in any real sense constitute an economic demand. The discipline of costs fades into the background and decisions are then reached primarily through political activity, with the promotional efforts centered on self-servicing assertions regarding general benefits.

It is for these reasons that the costs of transportation facilities and services provided by Government need to be brought out of hiding and registered effectively at the points of business and consumer decision by requiring compensatory payments from those who use such facilities and services. Without such charges, shippers and consumers cannot make unbiased economic choices in deciding which kind of transportation to propose or to use in particular situations, for they will ignore hidden subsidy costs from which they are relieved and which are borne for them instead by taxpayers. Their choices are distorted choices that foster diseconomy rather than economy of transportation resources, with the result that aggregation transportation costs are increased, not decreased.

Yet the belief dies hard that subsidized transportation is cheap transportation.

Although this conclusion regarding compensatory user charges has had increasing acceptance, both inside and outside the Government during 3 Presidential administrations and in committees of Congress over the past 20 years or more, effectuation of the user-pay principle has been slow and erratic. We continue to have chronic subsidies in transportation not because they are any longer necessary to maintain a sound and adequate national transportation system but, rather, because pressures for their continuation are so strongly exerted by those who reap special economic advantage from them.

An important accomplishment of the Highway Act of 1956 is the requirement that Federal expenditures for highway aid shall be covered entirely by revenues from charges levied upon highway users, with a trust fund of receipts from user charges set up to assure that this requirement is met. Since the conditions and principles are essentially the same, consideration might well be given to applying

the trust-fund-control plan to the financing of Government expenditures on behalf of waterway- and airway-transportation facilities also.

The 1956 Highway Act also recognizes the principle, though it was very modestly applied, that large and heavy vehicles on the highways shall pay special user charges in addition to the kinds of charges levied on passenger automobiles and other ordinary vehicles.

The St. Lawrence seaway is another significant case in point, for provisions of law in both the United States and Canada authorizing joint development of this waterway require that its costs be self-liquidating from tolls upon the users. Although prior to authorization sponsors of the navigation project gave unreserved assurances that it would easily be self-supporting and involve no costs to taxpayers, some prospective users, now that the waterway is approaching completion, express misgivings as they press for low tolls in disregard of the costs to be met.

From the beginning the economics of air transportation has been closely interwoven with advances in military aviation, as the spectacular development and operation of modern aircraft has been spurred by tremendous expenditures of public funds required for the national defense and security. Especially in view of this very substantial intrinsic advantage and impetus, there is all the more reason to question the justification for continuing, in addition, to bestow upon domestic civil air transport subsidies and aids that were initiated as temporary expedients when air commerce was a fledgling activity many years ago. As yet, however, little progress has been made toward the elimination of such special aids to domestic air transportation so as to place it on an economic basis for self-support.

Representative MILLS. Thank you, Dr. Behling.

Our next panelist is Prof. John Due, department of economics, University of Illinois.

Mr. Due, you are recognized.

STATEMENT OF JOHN F. DUE, PROFESSOR OF ECONOMICS, UNIVERSITY OF ILLINOIS

Mr. DUE. The enactment of the Federal-Aid Highway Act of 1956 and the Highway Revenue Act of 1956, represents a major departure from previous Federal highway policy, one which will undoubtedly lead to a sharp stepping up of highway construction in the United States.

The new program involves a sharp increase in the relative sphere of the Federal Government in the highway field relative to that of the States, one which is very difficult to justify in terms of usually accepted standards of allocation of functions among various levels of government. In this instance the larger role of the Federal Government makes available no additional major revenue sources for the financing of the activity but instead involves greater Federal encroachment in traditional State revenue preserves; it is not likely to lead to greater efficiency in the conduct of the function; and it contributes little or nothing toward the equalization of the burden of highway costs among the States.

The growing role of the Federal Government in the highway field is almost entirely the result of default on the part of the States—of their failure to provide adequate funds to meet the demands for improved highways. The experience should serve as a warning to the States that if they are to maintain their position in other fields of activity, they must act to meet popular demands for services.

The Federal Government determined its level of expenditures for the new highway program in terms of engineering standards for necessary highways, based largely on the recommendations of the Clay Committee, without any attempt to balance the relative needs for highways against those for other governmental programs. The establishment of the highway trust fund and a program of highway expenditures over a long period of years facilitates highway planning, but it increases still more the difficulty of integrating highway expenditures with those for other purposes, by excluding them from budget review.

The use of the trust fund device has had the most unfortunate effect of removing the highway revenue and expenditure figures as measures of trends in Government activities, and tends to conceal the magnitude of this function and the total level of Government expenditures from Congress and the public. Earmarking of funds is possible without exclusion of the data from the budget.

While the projected expenditure figures are almost certain to prove to be inadequate because of continued price increases to construct the planned system, the latter in some instances is probably in excess of reasonable needs, particularly if greater efforts were made to insure better utilization of existing routes.

The establishment of a plan of highway expenditures over a period of years which is in no way related to economic conditions of the particular years is contrary to accepted principles of sound fiscal policy. It should be possible to provide for acceleration of the program in periods of unemployment, if these develop.

The most significant defect in the program, as such, is the emphasis on expressways as the sole solution to metropolitan area traffic problems, and failure to provide assistance to the development of public rapid-transit facilities in those instances in which these may provide a more satisfactory solution. It is entirely possible that in some areas expressways will prove to be self-defeating, and may even aggravate the problem. Yet the present program makes no effort to consider the relative desirability of the two forms of transportation, but prejudices the case in favor of the expressway by providing assistance for it alone.

In the next decade large metropolitan areas are likely to face a major crisis with respect to railway commuter service, the losses of which cannot be borne indefinitely, by the companies or freight shippers. In view of the necessity of the services, governmental assistance in some form is essential; if the Federal Government is to assist in the building of urban expressways it should aid the local governments in the handling of the rail commuter problem as well.

Representative MILLS. Thank you, Professor Due.

Our next panelist is William C. Flaherty, director of business research, Chrysler Corp.

Mr. Flaherty, you are recognized.

STATEMENT OF WILLIAM C. FLAHERTY, DIRECTOR OF BUSINESS RESEARCH, CHRYSLER CORP.

Mr. FLAHERTY. The Highway Revenue Act of 1956 is evidence that the people of the United States want to have their obsolete inadequate highway system replaced with a modern adequate one. The highway building program as a plan has thus become an accomplished fact. Our concern can now be directed toward the fulfillment of the plan—that is, getting the highways built. I therefore take this opportunity to bring to the attention of the Committee on Fiscal Policy, certain circumstances pertinent to “getting the job done.”

It would be a grave error to permit any type of development to delay or slow down the program's progress, because an adequate system of major highways has become a necessity for long-run national growth and survival. The new system of highways will contribute to increased total production and increased per capita productivity by providing a vastly improved system of motor-vehicle transportation. Furthermore, the international crisis now facing this Nation might ultimately be resolved on the basis of a productivity race. An adequate highway system is thus a requisite for long-run economic growth and national security.

The highway transportation crisis would certainly not have arisen had modern roads been built to keep pace with growing traffic needs. Thus highway building would not have become a major concern of the Federal Government if State and local agencies had been able to eliminate obsolescence on their own. However, the State and local agencies did not get the job done, and the crisis had arisen. The Federal Government has found it necessary to assume the responsibility for corrective plans and actions. The actual construction operations are controlled, of course, at the State and local level, but the overall task of assuring adequate progress is a job that the Federal Government must treat as its own responsibility.

Problems and conflicts that pose as a challenge to highway building progress must be met and resolved as to minimize interference. This can usually be achieved by allowing fully for the relative order of importance of the conflicting circumstances. Few Government programs or policies currently merit the priority that must be accorded to the highway program.

Even financial problems should not be permitted to diminish the achievement of satisfactory progress. For example, inflation must be met, if necessary, by increasing the appropriations to take care of rising costs. Taxation problems should be given full and fair consideration, but construction plans need not wait until the debates are resolved concerning how future taxes should be levied.

The problem of how to plan the financing of the program from year to year so as to avoid unfavorable effects on short-term economic conditions should not be ignored. Allowance can be made for the current economic situation at each planning stage. So far as is practical, highway financing procedures should be consistent with wise fiscal policy.

For example, the rate of spending might be speeded up at a time when a bolstering of business activity is needed. However, the highway program is of sufficient importance that the reverse policy—a slowdown—should not be permitted.

In order to permit observing closely highway building progress, a more elaborate reporting procedure is recommended. The Bureau of Public Roads might consider whether it has or can obtain sufficient additional information in order that detailed official summaries of progress might be issued at frequent regular intervals. It is imperative that these highways be built. It is therefore important that the public be kept fully informed about construction progress.

Representative MILLS. Thank you, Mr. Flaherty.

Our next panelist is Mr. Roger A. Freeman, vice president of the Institute for Social Science Research.

Mr. Freeman, you are recognized.

STATEMENT OF ROGER A. FREEMAN, VICE PRESIDENT, INSTITUTE FOR SOCIAL SCIENCE RESEARCH, WASHINGTON, D. C.

Mr. FREEMAN. Mr. Chairman and Mr. Curtis, our growing population and expanding economy demand an ever-increasing volume of construction, both public and private. For several decades, construction has outpaced the rest of the economy, except in times of depression or war.

REVIEW OF THE PAST DECADE, 1947-57

During the past 10 years, while gross national product increased 45 percent and personal consumption 36 percent, new construction went up 79 percent (constant dollars). Private construction, residential and nonresidential, increased 56 percent; public construction 180 percent.

Within the public-works category, educational construction led the field in the rate of increase, followed by major national security and hospitals. Highway construction grew more moderately.

Simultaneously, construction costs also increased more rapidly than other prices. The CPI increased 26 percent; wholesale prices, 17 percent; construction-cost indexes increased between 37 percent—Department of Commerce, composite—and 60 percent—ENR, other construction. A rise in building material costs of 39 percent accounted for the minor part of this; wage increases of 77 percent for the major part. Wage boosts were larger in construction than in manufacturing although productivity increased less in construction than in manufacturing.

HIGHER WAGE RATES PROVED ATTRACTIVE

Contract construction employment increased 57 percent during the past 10 years while the civilian labor force grew 16 percent, manufacturing employment 11 percent.

Higher costs, of course, were passed on to the public. It has been said with some justification: "Labor and management buried the hatchet—deep in the consumer's skull."

The picture of the past decade may be summarized: The Nation succeeded in boosting construction more than twice as fast as personal consumption, public works more than three times as fast as private construction. In doing so, it pushed construction costs up more than 3 percent per year.

NEEDS AND PROSPECTS, LOOKING PARTICULARLY TO THE NEXT DECADE

In 1955 the Department of Commerce compiled a number of surveys of needs for roads, schools, hospitals, water and sewer facilities, et cetera, and arrived at 10-year requirements for State and local public works of \$204 billion. If we consider price changes since 1954 and add requirements in fields of Federal responsibility, we get a total of over \$300 billion of public works which, according to the surveys, ought to be built within 10 years.

The 1957 public-works volume will establish a new record of \$14.1 billion. It can easily be seen what the result would be of attempting to build \$300 billion worth of public works within 10 years. This might well raise construction costs more than 3 percent per year.

Assuming a growth in GNP of 40 percent in the next decade and an increase in the percentage of GNP for public works from the present 3.2 percent to between 3.8 and 4 percent, it may be possible to complete about 60 percent of the requirements shown in the Department of Commerce survey. Even that will lead to substantially higher construction costs.

It seems to me the surveys need not be taken at face value. They are largely in the nature of asking figures—similar to budget requests—prepared by departmental and local administrators who set their targets high to please their respective clientele groups and substantiate claims for large Federal funds.

Of course it would be desirable to build all of those facilities. But programs must be shaped within the framework of the economic and fiscal potential.

Federal funds for public works are now being increased steeply. The 1958 Federal budget proposed to double civil public-works expenditures between 1956 and 1958. Such a trend, if continued, cannot but accelerate inflationary pressures.

FEDERAL GRANTS-IN-AID TO STATE AND LOCAL GOVERNMENT

The Federal Government in 1957 provided 12 percent of State and local construction funds. The Federal share will go up under existing programs; also, numerous other new and enlarged programs have been proposed.

The 1958 United States Budget listed altogether 83 Federal grant-in-aid programs for State and local construction or services and 15 newly proposed. At that rate of proliferation, the Federal Government may soon control most or all State and local activities and relegate the States to the status of administrative subdivisions.

This system also burdens Congress with decisions on the adequacy of local services and facilities in every State and community throughout the country. Congress is not well set up to render proper decisions in this field.

The question may be raised whether it would not be preferable for the Federal Government to leave programmatic decisions on the volume and type of local services and construction to the States and communities, and render financial support through non earmarked, unconditional grants or tax sharing. This would also inject a greater

flexibility into Federal-State fiscal cooperation which would be helpful in counteracting undesirable economic fluctuations.

The Interstate Highway System is now being financed on a 90-10 basis. This might well be the most expensive way of building it. Consideration should be given for the Federal Government to assume full responsibility for the Interstate System while leaving the rest of the roads to the States.

CONTRACYCLICAL PUBLIC WORKS POLICY

Public works policy is an important part of contracyclical strategy in fighting major and long-lasting disturbances; it is less well adapted to offset minor or short-term fluctuations.

Monetary and fiscal measures can be applied more speedily, they are effective more quickly, can be regulated upward or downward or turned on or off more easily than public works programs and projects which at best have a long lead time. If public works are to be used as a contracyclical tool, they should be applied against both inflationary and deflationary trends.

Repeated experience has proven that it is politically much more difficult to restrain public works activity—by denying authorizations or new starts—than to expand it.

It is conceivable that construction prices may be rising while construction employment is declining because of consumer resistance to high costs. Under such conditions Government should not bail out an industry which is pricing itself out of the market. If public works were expanded, corrective action would be prevented and inflationary trends strengthened.

There is a large potential for public-works expansion in the State and local field in case of a major economic downturn. Most of the funds probably would have to be provided by the Federal Government.

Techniques for speedy cooperation between Federal, State, and local governments, so far, have not been developed. Constitutional and statutory obstacles in the several States could delay action for many months and in some cases for years. It is suggested that a study be undertaken of methods of fiscal Federal-State-local cooperation by the United States Bureau of the Budget in collaboration with the National Association of State Budget Officers, and the Municipal Finance Officers Association.

Representative MILLS. Thank you, Mr. Freeman.

Our next panelist is Prof. Hendrik S. Houthakker, department of economics, Stanford University.

Professor Houthakker, you are recognized.

STATEMENT OF HENDRIK S. HOUTHAKKER, PROFESSOR OF ECONOMICS, STANFORD UNIVERSITY

Mr. HOUTHAKKER. The Federal highway program of 1956 is an anomaly in several respects. It has increased the scope of the Federal budget at a time when many people are already concerned about its size. It cut short the toll-road movement by which some States had made a promising effort to resolve their traffic difficulties. It contributed to inflationary pressures by calling for heavy capital expenditures during a period of full employment, and at the same time it reduced the possibility of undertaking useful public works by means

of which a depression might be fought. The need for new highways must be pressing indeed if it justified this new departure.

It is no easy matter to say whether all the proposed highways are necessary. We cannot do so by merely looking at the annual national income and postulating that a certain fraction is to be spent on highways. On the contrary, every individual project has to be looked at on its own merits and with the aid of correct techniques of analysis. There is a great need for more research in this area, particularly as regards the accuracy of traffic forecasting. The success of the highway program cannot be measured merely by the number of miles constructed; what really matters is the number of vehicle miles that is traveled on those roads.

Apart from the detailed examination I just mentioned, the Federal highway program may also be more provisionally judged in terms of its intentions. The program will lead to two types of roads, those in the so-called Interstate System and a certain number of civil-defense highways. The latter are mainly around cities and may be of great benefit in solving the urgent problems of most urban areas. Even so, the Federal program should not be allowed to prevent the cities from putting their own house in order. Congestion in downtown areas could probably be favorably influenced by higher parking rates and better law enforcement. The cities have some claim to Federal assistance because their political influence in many States is not proportionate to their economic importance.

The usefulness of the so-called Interstate System is much more doubtful. The name itself is misleading, because many of the proposed roads will be used only to a small extent by interstate traffic. Where out-of-State traffic is heavy, toll roads are a better solution of the financial difficulty thus caused. It is true that not all toll roads built so far have been equally successful, from a financial point of view, but the situation may be improved by three measures. In the first place, toll rates should be adjusted to traffic conditions; they should be lowered if the traffic falls short of capacity and raised if there is serious congestion. Secondly, less use should be made of revenue bonds secured only by toll receipts; methods of financing toll roads should be more analogous to those used in private business. In the third place, double taxation should be abolished either by giving refunds to toll-road users or by subsidizing toll roads out of gasoline-tax receipts. Even with those improvements, toll roads can only be used where there is heavy traffic and limited access, but this restricted applicability certainly does not mean that tolls should never be levied at all. With a suitable use of tolls, gasoline taxes, and license fees, most States will be able to solve their rural-road problems without Federal assistance.

As I mentioned at the beginning, the Federal highway program also leaves much to be desired, from the point of view of general economic policy. In fact, it is hard to see how the Highway Acts of 1956 can be reconciled with the Employment Act of 1946. Serious consideration should be given to the possibility of putting certain parts of the Federal highway program on a standby basis, with due encouragement to the States for meeting the more pressing needs.

Representative MILLS. Thank you, Professor.

We have found in some of the other panels that it is most interesting to permit the panelists, first, before the subcommittee begins its inter-

rogation, to make such comments as individual members of the panel desire to make with respect to the papers filed in the compendium by other members of the panel. I wonder this morning if any of the members of this panel would desire to raise any points with respect to the papers filed by other members of the panel in the compendium, or any statements that have been made by other members of the panel to the subcommittee this morning.

Professor Due?

Mr. DUE. I would like to make a couple of comments with respect to tolls, which have just been referred to by Professor Houthakker.

One minor point was his suggestion of giving refunds to motorists to compensate for gasoline taxes on gasoline used on the toll roads. This is a horribly expensive and undesirable method of accomplishing the result. The mere handling of the refund requests is a substantial problem. In addition, any sort of refund always paves the way for substantial tax avoidance, no matter how tight a control system is employed. The same result can be accomplished by other means.

More generally, with respect to the use of tolls, it seems to me there are several objections which Mr. Houthakker has passed over lightly. One is that toll roads are more expensive to build, partly because of the much greater restriction of access that is necessary. No other roads can be permitted to cross at grade, for instance.

There are, in addition, of course, the costs of toll collections, which become increasingly serious, percentage-wise, as the toll principle is expanded to routes with less and less traffic density. A gasoline tax is a much cheaper way of financing than tolls.

I think that it is very doubtful if the use of the toll principle really would result in a much better allocation of highway funds than is obtained at present with the usual methods of the States.

Representative MILLS. Professor Houthakker?

Mr. HOUTHAKKER. As to the first point, I had obtained a suggestion of making refunds from a proposal, which has now been adopted in Massachusetts, of actually doing it this way. I think that the other method which I mentioned, namely, of subsidizing the toll-road authorities directly from gasoline receipts, is probably much more efficient. I would agree with Professor Due on that.

As regards the general merits of toll roads, I am much more favorably disposed to them than Professor Due is. I think it is true that there is a somewhat higher cost of construction in the case of some toll roads. However, I think it is true that free roads, as now constructed in many States, are equally free of grade crossings and are just as expensive to build as some toll roads.

The cost of collection is undoubtedly a serious matter, and that is the main reason why I emphasized in my paper that toll roads are only a very limited solution. They can only be used where there is heavy traffic and where access is limited, say, on the Pennsylvania Turnpike, where there is relatively little population in the area through which the turnpike crosses.

I think that, from the allocative point of view, tolls are superior to gasoline taxes. It is not just a question of where you get the money from, but it is also a question of what inducement you provide to road users to use certain roads rather than others. I think, in that respect, the gasoline taxes do nothing to steer motorists to certain roads rather than others. You can achieve this by means of tolls. For

instance, in the extreme case of a toll bridge, if there were no tolls on bridges, traffic would undoubtedly be much heavier than it is at the moment, and this would lead to quite a lot of unnecessary traffic. It is quite clear that a toll bridge could not be financed from gasoline taxes only, if it is a major structure. I think that is only an extreme example.

In general, the effect of tolls on the direction of traffic, I think, may be quite favorable. I would agree, however, that there is much need for confirmation of the view, and I think that highway research might well devote more of its attention to aspects of this kind.

Representative MILLS. Mr. Freeman?

Mr. FREEMAN. I want to agree with Professor Houthakker. I doubt that this new system of the Massachusetts Turnpike Authority, of giving refunds, will work.

Everybody who drives a toll highway now pays twice; for the road he drives on and for some other road he is not using. Therefore, I think it would be justified to transmit the equivalent of the gasoline tax to the toll highway authority. Tolls could then be set lower and would attract more traffic. The double charge is mainly responsible for the unsatisfactory earnings of the Ohio, Indiana, and other toll roads.

I want to agree particularly with Mr. Behling, that the principle of user charges and of the market determination could be largely expanded in the field of public works.

As to toll roads, I don't think it costs more to build a toll road than a free road. The cost of collection can be greatly reduced by the use of mechanical procedures. What Mr. Behling said about the law of supply and demand and of so-called needs being an expression of desire without willingness to pay applies to many types of public facilities.

The market principle should be applied more widely. I doubt, however, that it is desirable to expand the use of trust funds to airports and other public works.

Those who are familiar with the difficulties that States have with special funds—which range from about half a dozen in New York to more than 200 funds in Texas—know that earmarked and trust funds, particularly if they keep increasing in numbers, complicate and confuse the financial picture. There are better ways of making certain that expenditures do not exceed revenues. I believe that Federal revenues and expenditures should be channeled through the budget, and that exceptions be kept to a minimum.

Mr. BEHLING. Mr. Chairman, I think we can probably agree that the trust fund device is not a perfect one, but I think we ought to be very careful about drawing analogies to the State experience when we are talking about the Federal transportation programs. We know that the States have gone very far with the earmarking, the segregating devices. In some instances, they have probably gone too far.

But this ought not to lead us to suggest that it ought not to be used at all at the Federal level where we have situations where the merits of such a control plan are so outstandingly evident as they are with respect to these transportation programs.

On the toll-road matter that was discussed just a moment ago, I think there are a couple of other aspects that ought to be brought out in connection with this suggestion for a gasoline-tax adjustment or

refund. Let us bear in mind that nobody has to use a toll road, and he wouldn't use it unless he is getting his extra money's worth or convenience, or some other kind of satisfaction.

So far as toll roads are concerned, we have also noted this additional difficulty or paradox: With few exceptions, the Pennsylvania Turnpike being perhaps the outstanding one, there is a rather strong tendency for the passenger cars, yours and mine, and Tom's and Dick's and Harry's, to use the toll roads and to support them, while the commercial users of the highways, for the most part, find that they are relieved from congestion on the free roads, and they use them instead.

This is an important matter at least from the standpoint of sound competitive relations in transportation.

Representative MILLS. Mr. Flaherty?

Mr. FLAHERTY. Mr. Chairman, I have just a general observation on what perhaps might be a theme that appears in some of the papers, a theme that is important and cannot be contradicted.

Many of the reservations that are expressed in the papers seem to relate directly to the specific terms of the Federal Aid Highway Act of 1956. While undoubtedly many of these claims are strongly supportable, they do not fully reflect the character of our present highway transportation problem.

An observation on some of the comments might start with the point that exceptional problems are faced in the highway situation, specifically the problem to which Dr. Houthakker referred, of traffic forecasting, which bears importantly on the selection of site. It should be noted that the market determination of highways is not quite the same as in the case of other economic services, for the reason that once a highway is established, the resource services that it can provide are completely fixed. The question has perhaps been disregarded that perhaps another site might establish substantially a different set of values, to which the market determination principle could more appropriately be applied.

The immobility of the resources provided by a highway once established, can never completely be overcome, or the limited values alleviated by modification merely of the cost to the user of the highway.

A second problem that seems to enter at this point is the one of determining what really is meant in the case of highways as to users of the highways, those who benefit. I know that there is a study which is underway in an attempt to determine the full schedule of benefits that are provided by highways.

The highways seem to provide a divisibility of transportation services, both to the individual private passenger car user and to the transport of goods operator, not provided in essentially the same way by any other type of transport service. That would seem to suggest that the problems that are related to the highways are exceptional in character and perhaps much economic theory that would apply generally to other broad groups of resources does not apply appropriately to this problem.

Representative MILLS. Mr. Freeman?

Mr. FREEMAN. Mr. Chairman, it seems to me that neither highways nor any other field of public activity can be viewed only on its own merits without regard to demands from other areas. Groups interested in one type of service do not like to concern themselves with

the needs in other fields. The highway people feel that the needs of highways come first, that they should be looked on separately, and that no other considerations should enter. The people who are interested in educational construction, in hospital construction, in sewer and water, in urban redevelopment, and so on and so forth, feel similarly about their particular service.

Everybody thinks that his own field is the most important and should be excepted from rules that apply to others.

Many special interest groups feel that public works have a one-way flexibility: they should be expanded in times of unemployment, but should not be contracted when inflationary pressures are apparent. This is like saying, "Heads I win; tails you lose."

I don't see how it can be claimed that we should expand public works when there is a downturn in employment, but that we shouldn't cut back if there are full employment, rising prices, and inflationary pressures. Highway construction as the biggest field of public works construction, ought to have a two-way flexibility, depending on economic trends.

I remember that in early 1954 when I was before this committee, there was considerable pressure for a Federal school construction program—as there was until a few months ago—but it was based then to some degree on the fact that employment had a downward trend.

But there have been no suggestions to cut back at times of inflationary pressures.

I believe that the volume of public works construction should be adjusted to some degree to the trends of the economy in order to offset undesirable fluctuations; but that must be a two-way street. Naturally, it is politically very difficult to do so. That was proven at this last session of Congress, when public works appropriations were steeply increased while construction prices were rising.

There is good reason to deny new authorizations and starts when inflationary pressures are apparent, and to slow down or stretch out existing programs in some form or other, unless we are willing to see prices rise sharply and continuously.

Mr. Flaherty suggested that we should increase appropriations if prices rise, as they have been doing consistently in construction for many years.

That, it seems to me, is somewhat like a dog chasing his tail. We will never catch up. We put in more money and the prices rise, then we boost appropriations and prices go up again. There is no end to this vicious cycle.

The answer is, I think, that if prices rise, we ought to spend less so as to stem inflation. Otherwise, we will continue to push construction costs up at a rate of 3 percent or more per year. Three percent per year is the equivalent of a doubling of prices within 24 years. If we are willing to do that, that is one thing. But I don't think that most of us would be willing to agree to cut the dollar in half every 24 years.

Representative MILLS. Mr. Flaherty?

Mr. FLAHERTY. Mr. Chairman, may I comment on that? My whole paper is based upon a premise which, if not valid, would lead to substantial change in my comment. The premise is that a modern, adequate highway system constitutes one of the most urgent needs

for the economy. There has been much written and much said, and many studies made, in an endeavor to fix dimensions of that need. I think we are sufficiently conscious of the pressures that have been created by the demand of persons and businesses for adequate, completely accessible or readily usable, highway systems, demands that have been built up in every city and every town across the country by reason of the inadequacy of our highways. That is my fundamental premise.

I would be the last one to deny the necessity of adjustment upward and downward of Federal fiscal policy in handling cyclical variations. However, there is a question of selection.

For example, if program A seems to represent a greater degree of urgency than program B, and if the general economic situation or circumstances permit it, then it might be wise to consider a lesser reduction of program A's expenditures than those of program B.

So we are saying that on the premise that the highway program is one of high urgency, for the next several years, until substantial progress has been made, consideration should be given rather to increase the expenditures than to decrease them, of course within a framework of reasonableness.

It appears to me that there is a uniqueness about the role of the Federal Government in the highway problem that is not manifested to the same degree in other fields in which public works might be undertaken.

For example, we have all experienced the difficulties arising from a substantial change in the standards of highway availability in use and in service as we pass from city to country, from State to State.

It would appear that the Federal Government has a role in maintaining standards and coordinating the numerous engineering studies that will be required for a modern, up-to-date system. It is necessary also, and I do not stress this point because of its clarity, that the defense requirements cannot leave the Federal Government out of the highway program but require the entrance of the Federal Government in a substantial way.

I have one more comment, if I may, with respect to prices.

It is clear that the highway program should not be utilized or should not be permitted to become a further tool of inflationary growth. The highway construction needs that suffer by reason of inflation cannot help, of course, but play a role of contributing to inflationary pressures. But the cost pressures arise outside the highway program, and probably should not be considered as justification for slowing down the highway program while inflation is fought.

Mr. BEHLING. I do not think, Mr. Chairman, Mr. Flaherty fully indicated how elusive this concept of need is as a working economic tool. You can assert—we all know it—needs with respect to ever so many things.

I can say, for example, that I have need for 25 suits of clothes; I have need for five Cadillacs, a pink one, a lavender one, a convertible, a sedan, and so forth. This, I think is so well manifested in the way in which the Federal-highway program was mounted several years ago.

We know if we go back in the record that in the first couple of years, and this thing started at least 5 years ago; almost every word that was uttered about the Federal-highway program was solely in terms of

need. It was only when the Congress realized, congressional committees wrestling with it came to realize, that the real focal point was where would you get the money, that we began to get anywhere with the Federal-highway program at all.

Just to talk about needs in the abstract atmosphere, I think, gets us nowhere. It entirely ignores the question of priorities, the question of selection. We know that every group that has a particular interest will assert, of course, that its particular program ought to have top priority.

I would like in that same connection to offer a qualifying observation to the remarks that were made by Mr. Due and Mr. Flaherty in their introductory statements.

They both said something to the effect that this highway program was put underway because the States had fallen down on the job. Now, let's get a little perspective on that and look a little at the record.

It is true that during World War II our highways, to a very considerable extent, deteriorated. We came out of the war and highway work began again. By 1947, the Bureau of Public Roads stated officially in its reports that the highway work was back on an even keel again.

Meanwhile, the States were making very considerable progress. But it brings us back to this need thing again. If you say that our needs are ever so much greater than what we are doing, you can also, by that route, and by that process of demonstration, show that we are not doing as much as we ought to be doing.

But I do think it needs to be brought out, and I am sorry I don't have the figures here with me this morning, that the States were not laying down on the job; they were making very considerable progress, though opinions can differ as to whether they were making enough.

The real question now, is whether, with the Federal Government having taken over so much of the job, the States are not being encouraged now to lay down on the job.

Representative MILLS. Mr. Freeman, you were seeking recognition.

Mr. FREEMAN. Mr. Chairman, I am quite in agreement with Mr. Flaherty that the highway needs are among the most urgent needs, and I am very much for continuing and expanding highway construction. When we look how public works are divided by the various types, we find that highways are first with 35 percent and education is second with 20 percent.

Does anyone feel that educational needs are less urgent than the highway needs? At yesterday's panel, the opinion was expressed that educational needs have the No. 1 priority.

It is only because the panel member from the Public Health Service was not here yesterday that nobody asserted that hospital needs are the most urgent and ought to have priority. Hospitals account for about 10 percent of all public works, major national security for 13 percent.

Would anybody contend that major national security is not urgent and should not have priority? Let's go down the line, take the next one, "Conservation and development." I have a feeling that the groups interested in conservation and development, flood control, water supply and irrigation are no less sincerely convinced that the public works needs in those fields are most urgent and deserve priority.

So I believe that the assertion by one particular group that their's is the most urgent and important need ought to be countered by the question, "Which is the most important leg of a three-legged stool?"

The answer, of course, is that they are all important. But we cannot decide claims of so-called needs by just looking at one particular demand without considering the overall picture. The overall picture is rather clear:

Public construction has increased considerably more rapidly than private construction, certainly more rapidly than, for instance, residential construction. In the past 10 years residential construction has decreased from 42 to 30 percent of all new construction while public construction increased from 19 to 30 percent.

Is building homes for people to live in less urgent than building streets or schools? It seems to me that we have to take a look at the overall requirements, needs, or whatever you want to call them, and decide, at least at the Federal level, how much can be done without jeopardizing economic growth and stability.

Every group has to take its share and cannot claim exception from being cut back or not being expanded as much as it wants to be expanded, just because it believes that it has a higher priority.

I would make only one exception to that, and I believe that probably you all agree, namely major national security. That has first claim.

Representative MILLS. Professor Houthakker?

Mr. HOUTHAKKER. Mr. Chairman, in the first place I would like to support the remarks Mr. Freeman made earlier in response to Mr. Flaherty.

I am in wholehearted agreement with those. I would like to come back to some of the more technical points raised by Mr. Flaherty in his earlier remarks. The question of immobility of resources is a point I wish to discuss. It seems to me that though resources are immobile, it does not mean that they should be free from control by means of the price mechanism.

For one thing, there are always alternative roads which can be used, and something must be done to make some more attractive than others in relation to the supply, and also, a very important point which I think has not yet come up, is the possibility of checking afterward whether certain improvements were really necessary.

In the area of public works, what happens very often is that things are built and everybody is very happy when they are built. Afterward, nobody asks "were they really necessary?" In other words, there is no attempt to verify afterward whether things were justified or not.

The building itself, the planning, can only be based on forecasts, and these forecasts can very easily go wrong. In my paper I mention one striking example near my hometown, the San Rafael-Richmond Bridge. I might add that this bridge was first constructed with one deck and, even before it was opened, it was already decided to build a second deck at an additional very large cost, perhaps because the bridge would not look so nice without the second deck, and without any regard to the traffic which was on this bridge.

I think this happens far too often. I think this is one of the reasons why toll roads merit sympathy. In the case of a toll road, there is actually a way of checking whether a particular highway facility is demanded or not.

So you can also see more clearly whether extensions or similar projects can be justified. This is not achieved when you have a gasoline tax, for gasoline taxes are derived from all traffic in a large area.

In the case of a Federal gasoline tax, it is all traffic in the United States. This, of course, does not tell you anything about particular roads. I think it is very important that we should look at particular roads when we make up our minds about how many highways to build.

The second point I would like to come back to is the question of indirect benefits. As I think Mr. Flaherty indicated, at the moment a study is underway under the auspices of the Bureau of Public Works among other things, to determine the indirect benefits. The whole thing of the study of public roads, called for by the Highway Act of 1956, seems to me to be an attempt to justify the Federal highway program after it had already been adopted, and it is not quite clear to me what results this research will come up with that may be of interest to future policy.

However, as regards the particular point of indirect benefits, it seems to me there is a confusion there. I find it impossible to conceive of benefits created by roads which do not depend on the use of the roads. Therefore, I would say that roads do not create any indirect benefits. All the benefits are direct. In fact, there are very few things which create indirect benefits.

The so-called indirect benefits are very often invoked, particularly in the field of water-resource development. I am strongly of the impression that the indirect benefits are too nebulous to merit attention in the consideration of such projects. I think other panelists before this committee have also made this point.

It would be much safer, from an economic point of view, if, in deciding on public-works projects, the indirect benefits were ignored, except, perhaps, in some special cases.

Mr. DUE. Mr. Chairman, I would like to support this last statement of Mr. Houthakker. Private industry of all types conveys important indirect benefits. The railroads do, just as highways. Ordinarily, the benefits have to be ignored in the consideration of optimum levels of expenditures for highways or any other purpose. There are special cases in which they may not.

I have one other point on the matter of tolls. If you would hold strictly to the rule that a road should not be built unless it would pay for itself on a toll basis, there would be very few additional miles of highway built in the United States, at least on the basis of the experience of some of the last toll roads built, including the one across northern Indiana, which is presumably one of the best potential routes in the country. At the moment, it is not covering interest costs.

Also, with respect to the question of tolls as a means of controlling use, most new intercity four-lane highways that are built today are not used to capacity or anything approaching it, except possibly during peak hours on roads close to metropolitan areas. What the tolls do is to divert some traffic away from the roads which are not used to capacity back onto the old, poorer roads. I would agree that in some cases, like bridges, used beyond capacity at rush hours, tolls have an important economic function. But for the average, modern, intercity highway, they perform an economic disfunction, you might say. That is,

they have the effect of diverting some traffic away which might better use the toll highway once it is built.

Then, finally, I also want to support the position of other members of the panel with respect to the matter of relative benefits. No one governmental activity can be considered independently of others. You cannot have more of everything. The more highways you build, the less of other things you will have in the economy. Always, it is necessary to consider relative competing demands.

Mr. BEHLING. Mr. Chairman, I would like to express my agreement very strongly with what Mr. Houthakker and Mr. Due have said about indirect benefits.

I think it is the most insidious and confusing idea that has been injected into this matter of the Federal highway program for the reasons that they have so well stated. Ultimately, what it comes to is an attempt to shift to general taxpayers, everybody, part of the costs of the Federal highway program, and to that extent, to relieve the highway users from those costs.

I think that should be squarely faced.

Representative MILLS. Mr. Flaherty?

Mr. FLAHERTY. May I make another comment? This is perhaps more in the nature of a clarification than it is any further comment on any of the points that members of the panel have made.

Mr. Behling's words, "the States had fallen down on the job" perhaps describes too strongly what I meant when I said that "the State and local agencies did not get the job done." The failure, if that is the correct word, that could be attributed to the States, largely reflects only inability to have foreseen the growth in importance of private highway transportation.

The fact is clear, I think that whatever the reason, and however sound or unsound the thinking or planning may have been, today we have a substantial unsatisfied demand for highway transportation services.

The demand which is not adequately met in many points across the country can be quantified. When you have more than three-quarters of the households of the country owning cars, and the economy consistently demanding more cars, when you see the growth in distribution services on a finer and more specialized basis than ever before, then the evidence is pretty clear that the problem is a gigantic one.

If one adds to that the consideration I mentioned before, that the characteristics of such a highway system really transcend the capacity of any single State or combination of States to provide, then I think one can see that there is need for a central agency, the Federal Government, to coordinate, to direct, and to assist.

I would like to reinforce the point that others on the panel have made, that no single problem stands above the others in priority, unless, perhaps, the problem of national defense and security.

My point has been that the highway problem is one of the more urgent problems. If study and examination support the statement that it has current priority substantially above that of many other national problems, it should be treated as such.

With respect to a point which Professor Houthakker made, and on which I, perhaps, had not made myself clear, my observation on the immobility of resources and the implications for planning was this:

Unlike most other economic resources, once a highway is built, to the extent that it is inadequate or has been wrongly planned, the services that it was planned to provide are diminished. They cannot be shifted into another area of economic activity, as can the resources of almost every other type of economic activity.

This would suggest to me that the cost mechanism applied after the highway is built is not necessarily a good determinant as to the soundness of that highway. A poor highway may provide adequate service only by reason of the absence of a better one.

Representative CURTIS. I would like to say that I tend to agree with Mr. Flaherty's presentation of why highways assume a different aspect in this overall question of why the Federal Government gets into it.

I think there were a number of economists who wrote around the late 1920's and 1930's, pointing out and predicting the death of the big city as we know it, based upon the coming of the automobile and electricity as power. It seems to me that what we are facing now is the effect of those two major changes in our society.

I think we can predict a great many things for the future, what is going to happen to our normal living, through following out the thinking that is posed there. The very fact that today it is true that distribution, to a large degree, now depends on the automobile—even banks and savings and loan institutions are building drive-in facilities all over the country.

That is occurring; so, I think the impact of the automobile, and I add electricity, on the customs, the basic customs, in living of our people is tremendous and we are right in the midst of that evolution.

The question, though, that I think is basically before this subcommittee in this field of transportation, and which lies throughout all of our discussions, is how does the Federal Government get into transportation and how did it get into it in the first place?

Of course, highways are just one form. I have made a little list of things that I could think of as transportation: Rails, water, trucks, pipelines, belts, and air. Then, a very interesting one to me, at any rate, is communications, because, at a point, communications and transportation seem to enter each other's fields.

The postal employees are beginning to realize that people are not so dependent upon the transportation of letters as they used to be, for communication. They are more apt to get on the telephone.

That has lessened the importance of mails; so, there is an area where transportation can become communications, and, I daresay, vice versa now, when a businessman, instead of getting on the telephone, might prefer to get on an airplane and attend a conference.

In looking down and viewing, and some of the papers point this out, how the Federal Government got into transportation in the beginning, the question then arises: Should it stay in, and if it does stay in, to what extent does it stay in?

One thing that strikes me forcibly is, because of the nature of transportation, it tends to create a monopoly, even though you might have competition between two monopolies.

In other words, the rails have competition from the trucks and waterways, but, nonetheless, it is uneconomical for rail lines to duplicate.

Therefore, there is a form of monopoly. So, the Federal Government is in the field from a regulatory standpoint, and I suppose it will remain there. But it also has gotten in indirectly, as we see in the waterways, navigation, and flood control in the rivers.

Defense has been a great argument, and a true argument, for getting into transportation. I suppose, in the beginning of this country, the development of undeveloped areas was a reason. I noticed in the papers, the railroads sort of slide over the fact that they were subsidized in their inception.

Mr. BEHLING. One hundred years ago.

Representative CURTIS. Yes; I agree. Airlines and railroads were at one time in their infancies. Nonetheless, I am talking historically, and I am not trying to cast the blame one way or another, but it looks like, in examining why the Federal Government did that, it was for a legitimate and proper purpose.

The railroads did develop this country. It was a wise investment. But that is how we got into it in that respect and there are still remnants of it. Some of the western railroads, I think in our travel vouchers, pay back a certain amount to the Federal Government when Federal employees use their lines. I do not know what the amount is, but there is that historical basis.

I suppose, to an extent, the Alaska Highway might be regarded as sort of a similar reason why the Federal Government got in. I think the Federal Government sometimes gets in from the standpoint of what they regard as equity, or, in effect, an attempt to regulate in a different way.

I am thinking now of the example of the development of the waterways to provide competition with the rails in order to bring down rates. There was the St. Louis-Kansas City situation along the Missouri River that comes to my mind. I am not trying to see if it was wise or unwise, but I am trying to find out why the Federal Government moved in.

Sometimes the Federal Government moves in through indirect subsidies, sometimes direct subsidies, and sometimes we do it in the tax structure. The rails, incidentally, got very considerable help just recently through the tax structure in the Government's granting certificates of necessity for building railroad cars, which is on the basis of defense.

I would like to pose the general question: To what extent should the Federal Government be in transportation, and how? Regulation—I think most of you will agree; yes. It should be in regulation. Secondly, should it be entering into the question of equities, or try to subsidize one group over another group? If so, what guidelines should be used to test how they should be subsidized in what way?

Then, a third factor I would like to throw out is that the Federal Government sometimes goes directly into the business itself. I have before me, from the finance department, Chamber of Commerce of the United States, November 1957, No. 69, a publication in which they make this statement. I do not know the truth of it, but it is interesting.

They state that the Defense Department cut back in certain areas, but then they say:

At the same time, the Air Force continues to operate, in direct defiance of repeated congressional criticism, a military transport service that includes more four-engine transports than all the commercial airlines combined. This is the-

largest commercial activity operated by the military services, and one of the most glaring examples of unnecessary Government competition with private enterprise.

It has occurred in the past; possibly in some coastal shipping; I do not know. But there is another way that the Federal Government can affect our transportation setup. So, having made those remarks, I wonder if the panel would discuss this question: On what basis should the Federal Government be in the transportation field?

No. 1, I am sure you will agree the field of regulation is proper. But what guidelines should be used if we are in it in a subsidy fashion?

The third one is: Should we enter into it to prefer one form over another and, if so, on what basis should we consider that?

Mr. BEHLING. Mr. Chairman, I would like to respond to that and say, first, that I think Mr. Curtis has raised some very important questions. I would like to comment on them in a connected fashion, if I can.

I don't think it is at all likely that the Federal Government is going to withdraw completely from the transportation activities. If waterways are going to be improved for navigation, and that is all we are talking about here, the transportation phase, I think the Federal Government will very likely continue to do it.

I don't know of any way in which we could have an integrated, functionally satisfactory airway system except through the Federal Government. It could not be done by the States and localities and have it sufficiently coordinated so that it would do the necessary job of routing the planes and helping to assure safety and so on.

When this matter that Mr. Curtis mentioned, aids or subsidies to transportation being nothing new, is presented, that, of course, is true. But I think we need to take account more than we do of this: What was done 100 years ago, or even 30 years ago, certainly does not provide us with a standard of what we ought to be striving for in the way of policy in a future course.

We have very different circumstances in transportation than we did 100 years ago, or 30 years ago.

Representative CURTIS. Might I interject that I agree with that, but let us take the rails. You had a lot of private toll roads in existence at the time the railroads were subsidized, and I dare say the owners of the toll roads felt pretty badly about the Federal Government going in there at that time.

I do not regard that, mind you, as an argument pro or con, I simply am trying to get the perspective on this thing. Maybe the Federal Government should not have done that then. But then in the light of 1957, we are in it, and what this committee is trying to do, as I understand it, is not to judge whether we should be, but to try to get the thing out in the open to see what the economic factors are.

I think after we have examined it there will be a lot of room for agreement as to certain things that certainly indicate the Federal Government should be in it. Then, the question always remains as to what extent. You mentioned airlines. Yes, the regulation of them, but does that mean that the Federal Government should continue to assist in building airports and so on?

There is always a degree. That is why I posed the first question. Does the panel not agree that there is no question but what the Fed-

eral Government is going to be in the regulatory end of transportation? I do not see how we can escape that.

I was simply posing it because I thought we ought to examine the whole thing.

The next question, and the really important one, is: Should various farms be subsidized, and if they are how should they, what is the extent, and what should the guidelines be when we do so?

Defense is a very legitimate argument for subsidization. I submit that the rural free delivery is still a legitimate argument for subsidization through the mail and, indirectly, the mail can be subsidizing the airlines or rails, for that matter.

MR. BEHLING. But, you see, the critical question is this: You say the Government—and I say, too—will remain in transportation programs for as long as we can see ahead, certain of the transportation programs. But this does not necessarily require subsidy.

The providing of the facilities, and the paying for them, are the critical matters. The cost is the critical thing here. We will get along a lot better in our transportation system if we recognize that where the Government has to be in it in a promotional sense, that we be more careful to place the costs upon those who use the facilities, the direct beneficiaries, who are the only significant beneficiaries for the reasons that Mr. Houthakker and Mr. Due so well pointed out before.

Representative CURTIS. Mr. Freeman?

MR. FREEMAN. Mr. Curtis, I believe an excellent statement was made by this committee in its report 2 years ago, which applies to this particular case. I am quoting it:

It should be recognized that use of the Federal tax system as a means of stimulating growth of any particular industry necessarily means willingness to deter the growth of others not equally favored.

In other words, whenever we give a subsidy to one industry that means that some other industry is being deterred, placed at a competitive disadvantage and held back in its growth. As a rule, Government should take a neutral attitude, except in rare circumstances.

Obviously, to establish a rail system in this country the Government was justified in giving the large land grants. To establish an air transportation system, justified subsidies to the airlines at the time. The question is: When can an industry stand on its own feet? By its own definition, that point may come rather late in life.

We have seen in quite a few Federal grant-in-aid programs to State and local governments, exactly the same thing. May I give you just one example?

Grants for the establishment of colleges for mechanical and agricultural arts were initiated 95 years ago. All States established such colleges many decades ago. The grants are very small. However, a few years ago when I was serving on the staff of a Presidential committee which was considering whether those grants were still justified, we were severely criticized for even considering abandonment. The grants no longer had any justification as a stimulation, but they had become institutions or vested rights.

It seems to me that as a matter of principle subsidization should be kept to a minimum. I do not believe that the highway program at the present time can be called subsidization, as long as the revenues come from the highway users. The gasoline taxes are highway-user revenues.

That is on a different level, for instance, than tobacco taxes or liquor taxes, which are generally not used for the benefit of the smokers and of the drinkers. But when it comes to excise taxes on manufactured products, then I am not quite convinced that those necessarily ought to be channeled into a separate fund and used for the benefit of highways.

Basically, it seems that the airline industry has achieved sufficient maturity to stand on its own feet, and most of the major airlines do at the present time.

Difficulties are caused by uneconomical practices in some industries. For example, the railroad industry is having financial difficulties at the present time. This may be largely the result of an overuse of labor due to "featherbedding." If the railroads were able to employ only the people they actually need they could probably operate quite profitably.

The same is true in the urban transportation field. There are several references in the other papers on the establishment of rapid transit systems, adjoining express highways into metropolitan centers, as is done on the Congress Street Expressway in Chicago.

The Congress Street Expressway was built, if I remember correctly, by a bond issue of the city of Chicago. Chicago, New York, and most other cities, with the exception, perhaps, of Cleveland, cannot finance construction and operation of rapid transit systems from passenger revenues.

Again, there is the question whether the city of New York, where the problem is probably the most serious, is not using far too many people, many more than are technically needed, to operate the subways, because they are being forced to do so.

Coming back to the question of subvention, I believe that as a basic principle the Government should render subvention only if it is absolutely necessary. An oblique relationship to defense is not adequate. Almost any claim could be justified by pointing at defense. There is not anything, in education, in health, or in national resources, that is not in some way related to defense. So I believe we have to view that with a very critical eye.

Basically, however, I think the market mechanism, the relationship between the cost and the customers' willingness to pay, is a better device to measure economic justification than can be obtained by all kinds of formulas, which often are geared to yielding the result which we want in the first place.

Representative CURTIS. Thank you.

I would like to make a comment along some of these points which you presented. No. 1, when we got into the details of trying to figure out the financing of the highway program, which came before the Ways and Means Committee, of which Mr. Mills and I both happen to be members, I was very much interested in the defense angle.

I wanted to see something put in from general revenue in the highway program because of defense. But when we broke it down, we ended up with the statement that defense was not an aspect that would justify any financing. It surprised me very much to find that so, or at least the evidence available at that time points to that conclusion.

Secondly, I was deeply impressed by an article I read, I believe, by General Ridgeway or one of our top generals, on the part that the railroads played in World War II. The thing that impressed

me the most was the utilization of personnel. I happen to agree with you that there is some featherbedding in the rail system, but I was amazed at the use of, the small use of, personnel in getting a tremendous job done, and the comparison between the use of personnel of the rails in relation to the use in the trucking industry.

It is a very interesting thing. Having had occasion when I was going from the Atlantic to the Pacific in World War II, to use our highways, and finding them practically deserted, I can see that it probably was true that our rails bore the brunt of transportation in this country during the war.

I just wanted to make that comment on your further comments. But these are the economic factors that I am trying to figure out and bring out into the open to see. I think Mr. Behling gathered the impression that I was a little bit unfriendly to the railroads. I do not think I am unfriendly to anyone. I bore a little brunt from my trucker friends because I insisted on the license feature in the tax bill. I felt that it was necessary to try to put this thing on economics, as you say, as best we can. I feel very strongly in that area. But I also recognize that there can be, and frequently is, a very good social reason why the Federal Government might interfere into some of these areas.

But, if they do, I am anxious to see that they go in for that purpose and then they get out after the purpose has been served. One way of doing that, of being sure of that, is to put the guidelines out. These indirect subsidies are what concern me as much as anything because you don't know they exist, or they are not easily brought out.

It seems to me because they are hidden, they are the more dangerous. I have only one other point I wanted to mention at this time and that has been somewhat discussed. I was glad to see that it was. This point is the effect of inflation on the transportation system and on transportation financing.

To me that is a very important thing, as it is in all segments of the economy. People tend to talk about the damaging features of inflation, but then they do not spell out exactly what inflation does, so that it is brought home from the economic standpoint.

I was interested in page 1114 of the compendium. It was discussing the effect of the toll roads, and the fact of the Oakland Bay Bridge having a 25-cent toll and the fact that the San Rafael-Richmond Bridge has a 75-cent toll.

On analysis, that is exactly, I would say, almost a classic example of the effect of inflation, what inflation can do in distorting the value of the dollar. Surely, they built the first bridge on a preinflated dollar, and the toll is tied to those costs. So it is on a preinflated dollar, the 25 cents.

Actually, if you reflected inflation, the charge should probably be 50 cents, but the financing has just been thrown all out of whack through the devaluation of the dollar.

Mr. FREEMAN. May I mention something, Mr. Curtis?

If I remember right, the other two San Francisco Bay bridges, and you may correct me if I am wrong, were built partly with a Federal subsidy. They were built partly with WPA assistance. There you have one bridge with a subsidy and the other bridge which has to stand on its own. So you have two factors in there that throw you off balance.

Representative CURTIS. That is the thing that worries me about this trust-fund theory of highways. There is too little mention of the danger of earmarking Federal taxes. Actually, the damage that can come in the long run from following that, I just cannot measure. But also, there is the fact that even though we created certain flexibilities for various purposes with the trust-fund theory, we did not create much flexibility as far as possible inflation is concerned.

I was happy to hear the discussion on that subject. I do not know how we are going to correct for inflation in the financing of a program that covers 13 years.

Mr. FREEMAN. It is 13 years now, and I have the feeling it will be expanded to 16 or 20 before it is completed.

Representative CURTIS. Maybe that is the way we will take account of inflation, just to continue stretching it out. That is all I have, Mr. Chairman, unless there are further comments.

Mr. HOUTHAKKER. May I refer to earlier remarks which Mr. Curtis made, which I believe are important? On the question of regulation, I am not altogether sure that regulation at the moment is still as necessary as it was, say, 50 years ago. There is now more competition than there used to be.

In the days when the railroads were the only large-scale means of transportation, it was very important that the Federal Government did something about it. But now that there is so much more competition between different types, I do not know but what there should not be some radical rethinking there. That is not the purpose of this session, to discuss that.

Another point which I would like to take up is, is there subsidization of highways at the moment? I think it can be argued that there is. It is true that through the trust fund the Federal revenue derives from highways is mainly going into transportation, with small exceptions, but it seems to me that some of this revenue previously went into general funds, into general revenue.

This applies particularly to the gasoline tax, which, I think, was a cent or a cent and a half before the new program was adopted. This now goes into highway construction. So to that extent, there is actually subsidization.

It also seems to be a point which has been emphasized by some of my colleagues, the the Federal tax on gasoline actually has a different justification apart from its use for highways, namely, that it might be a useful offset to the special privileges that the oil industry enjoys through percentage depletion.

That is a very technical question, but it has been argued on that basis that there should be a higher Federal tax on gasoline than is justified by the highway program as such.

Finally, on this question which has been raised of whether the Federal Government should engage in transportation, I think it interesting to observe that the United States is almost the only country where transportation, particularly rail transportation, is not conducted by the government itself.

Nearly all European countries have state railway systems, and I think the United States is fortunate in not having a Government-conducted railroad system.

In England, where the Government has to run the railroads, all sorts of considerations enter into the questions of policy which have noth-

ing to do with the most efficient way of transporting goods and passengers. I think, on the whole, if the Federal Government can stay out, so much the better.

Mr. BEHLING. Let us be careful about pursuing policies in other areas that will bring us to the condition where public ownership of our railroad system will be inevitable.

Representative CURTIS. I think very appropriate in the discussion by the panel is the question of the competition that now exists in the transportation field as a reason for minimizing the amount of regulation that the Government does. That is one of the arguments, I know, that the railroads are presently advancing, and I think it is a sound argument for loosening up on some of the ICC regulations.

But it bears right on this question of to what extent should the Federal Government be in the transportation field. Even regulation is a costly operation to the Federal Government.

Mr. HOUTHAKKER. May I make a further comment? I think that subsidization, such as has been practiced in the railroads in the 19th century and the airlines until quite recently, is mainly justified by the enormous risks which are incurred when you start a new industry. After all, the people who built the first railroads across the country took enormous risks.

There was almost nothing there. They could not be sure there was enough traffic to justify their investment. If the railroads had not been helped by land grants and other devices they would not have been built, probably.

The same thing applies to the airline industry, which also took risks. They did not know whether people would be willing to fly in airplanes. I do not think this applies to highways, which have been with us for the last 3,000 years, and everybody knows more or less what is involved there.

Representative MILLS. Mr. Flaherty?

Mr. FLAHERTY. I would like to suggest that much work remains to be done in the field of economic theory, if the problem that has been under discussion as part of the broader problem is more adequately to be grasped. Let me make a comment or two to support that.

When one thinks of the market process of cost or price as determining the more efficient or the most efficient use or allocation of resources one thinks in terms of a structure or a model that is considerably simpler than the reality we face today.

It assumes that availability of roughly identical services under some terms of reference, though not necessarily over the whole scope of possible reference.

When I made earlier reference to the identification of indirect benefits arising from highways, I was thinking of the role of local truck service and passenger-car service in suburban areas. It is true that trucks have provided virtually the only kind of service appropriate to the local suburban areas. Rails cannot or, at least, do not.

That is the function of localized, specialized, direct delivery. Were there a substitute service for that, then one could speak a little more directly and cogently about what economic theory would suggest.

This touches a broader point. Perhaps we in the automobile industry are quite conscious of it. It is the role that quality plays in competition. Increasingly we are seeing by reason of the differentia-

tion of goods and services that the process of price competition alone does not answer many of the important questions that can be raised.

I do not say that we have the answer. We sense the problems more than really grasp them. I think that one can discuss reasonably well the general benefits coming to communities and to economic areas from a transportation system, and in addition the benefits that flow directly from the availability of localized, special delivery or trucking services or passenger-car services.

Representative MILLS. Gentlemen, when we scheduled this consideration of Federal spending in the program of the fiscal policy subcommittee, we were thinking in terms of the advisability of looking at all Federal spending programs together, at least on one occasion.

Although we were then and still are fully cognizant of the fact that many considerations go into determining the level of separate Federal spending programs, we thought that it might be well to apply to these programs the yardstick of the objectives of the Employment Act of 1946, to determine whether or not the programs of Federal spending, considered separately and collectively, contribute to the objectives of that act.

We have gone through most of the major programs conducted by the Government. This morning we are considering expenditures for transportation. Since the committee scheduled this consideration, there have been other developments, of course, which have occurred, of which we are all very keenly aware.

I have posed a question from time to time to members of other panels in the light of these developments. What criteria or standards can you suggest that we utilize in the Congress in determining the relative importance from the viewpoint of the use of resources for programs, and, of course, particularly the transportation program this morning, in deciding whether or not, among the many other considerations, these programs promote or deter economic growth and stability.

Do any of you have any suggestions that we might be able to utilize in looking at this program and in reaching conclusions as to whether or not these expenditures promote economic growth and stability under foreseeable circumstances?

Professor Due?

Mr. DUE. With respect to stability, it seems to me that the highway program could be adjusted in such a way as to vary the annual expenditures in the terms of the state of business conditions.

Representative MILLS. In the short run?

Mr. DUE. In the short run, within limits. Obviously, there are some obstacles to this, but it seems to me that the amount can be varied. I agree with Mr. Flaherty that you cannot stop building all roads just because you have inflation. But, on the other hand, it should be possible to vary the program on some predetermined basis, so as to provide for a rapid stepping up of the program should anything approaching a severe depression begin to appear.

Representative MILLS. On the basis of what we now see, Professor Due, that may lie ahead of us not in the next several months, but perhaps the next few years, should we continue our present program as outlined under the Highway Act of 1956, or should appropriate committees of the Congress restudy the program in the light of these

newer developments to better determine now, the economic consequences of the program, along with other considerations?

Mr. DUE. I feel that when the highway program was introduced in 1956, too little attention was given to the matter of conflicting needs for other purposes, such as defense, and to the effects on economic stability, and that some further attention should be given to it, particularly to adapt the total annual expenditures to economic conditions.

Representative MILLS. Do you agree with the observation made by Professor Houthakker this morning in his short statement, to the effect that it is hard to see how the Highway Act of 1956 can be reconciled with the Employment Act of 1946?

Mr. DUE. Yes; I would agree with that statement.

Representative MILLS. Do you agree with that statement, Mr. Freeman?

Mr. FREEMAN. Yes, sir. May I add a point? The Highway Act of 1956 was passed on the consideration that there was a demand for more highways, that they were needed, and that they ought to be built.

Representative MILLS. If you will pardon my interruption, I think Mr. Flaherty, on page 2, in the first paragraph of his short statement, very correctly described the thinking that brought about the Federal program as involved in the act of 1956, when he said:

Thus, highway building would not have become a major concern of the Federal Government if State and local agencies had been able to eliminate obsolescence on their own. However, the State and local agencies did not get the job done and the crisis has arisen. The Federal Government has found it necessary to assume responsibility for corrective plans and actions.

I think that would be pretty well the conclusion of most Members of Congress as to why the program was launched. But I question very seriously that that is a proper consideration or standard for the Congress to use generally in determining whether to launch programs at the Federal level.

I am certain if that is the criterion we use, we will not be able to withstand the suggestions for increased expenditures in practically every field that affects human endeavor or human resources.

Pardon me, for my interruption.

Mr. FREEMAN. Mr. Chairman, to your last remark, I would like to add one observation. On page 1091, in my paper, I show that while highways accounted for 51 percent of all public works in 1929, they were down to 42 percent in 1947, and are down to 35 percent in 1957. These are calendar years.

That is surprising to most people who believe that highway building has increased more rapidly than other construction. Actually, highway construction has increased less. Why? It seems to me that the highway groups were caught in their own trap. They have insisted, ever since 1921 when Oregon passed the first gasoline tax and earmarked it for highways, that the gasoline tax in every State be earmarked for highways. They were successful in all but 5 or 6 States.

The gasoline tax is the only major tax now expressed in cents per physical unit. It is 3, 4, 5, or 6 cents per gallon. The sales tax, income tax, and other taxes, go up as the prices go up and the economy expands. We can maintain a 3-percent rate on the sales tax or

a certain income-tax scale but the collections will go up as prices rise.

The cost of highway construction has risen 125 percent since 1940 but gasoline tax yields did not increase sufficiently because State gasoline tax rates range only from 4 to 6 cents on the average, or 50 percent. Whenever a State tried to boost its tax rate, highway user groups opposed it.

You referred to the relationship of the Highway Act of 1956 and the Full Employment Act. The Council of Economic Advisers has tried for some time to find out whether flexibility can be inserted into the highway program.

The question is whether the volume can be expanded or contracted on the trend of the economy. They have met with strong opposition. Part of the difficulty is that the highway program is administered not only by the Department of Commerce, but also by the 48 State highway departments.

The professionals who administer the program will admit only a one-way flexibility. It could be gradually accelerated but not slowed down. Even acceleration is difficult because State highway departments are bound by biennial or annual State budgets.

There is serious doubt whether the highway program can be used for contracyclical purposes under the present system. That is one reason why I suggested in my paper that as long as we have gone 90-10 it would be better to go the whole way and let the Interstate Highway System be a national system.

That would have several advantages: In the first place, if the system were 100 percent Federal, and subject to a chain of command, then it could be expanded or contracted far more quickly than if approvals must be obtained from 48 State highway departments, governors, and State legislatures.

There is another reason. I mention in my paper that the 90-10 principle may be the most expensive way of building a highway system. Let me quote from a story in the New York Times of November 19:

Costs have risen disproportionately, particularly in acquiring rights-of-way for the use in the public-works program.

What is happening, and I think you can all figure out why, is that the State highway department right-of-way divisions see on one side the interest and influence of the local voter and property owners and, on the other a fund, 90 percent of which comes from the Federal Government. Which way do you think the decisions will go? Of the right-of-way division, the highway director, the governor?

If the case goes to court, are we not going to get something like insurance juries? If 90 percent of the money comes from the Federal Government, the local property owner is certain to get more—and a larger—consideration.

So I believe that if we want to insert flexibility into the highway program, and if we want to build it at a lower cost than is done at the present time, as long as we have gone 90-10, I believe it would be better to have a 100-percent national highway system. The desired construction volume could then be regulated more easily.

Representative CURTIS. You are talking about being able to regulate it fiscally?

Mr. FREEMAN. Yes.

Representative CURTIS. In other words, you spend, depending on our economy.

Mr. FREEMAN. Yes.

Representative MILLS. Before turning to Mr. Flaherty, because I want his viewpoint with respect to the observation of Professor Houthaker, Mr. Freeman, let me ask you this additional question, if I may, and others may comment on it later.

In your statement, you apparently view these expenditures for transportation in the light of stabilizing devices in the long run rather than in the short run.

Mr. FREEMAN. Yes, sir.

Representative MILLS. Is it possible for the program under the Highway Act of 1956 to assist in long-run stabilization with the present provision in the financing aspect of the act that allocations, and so forth, are limited to revenues received? Does that not prevent the act itself from having countercyclical possibilities to bring about greater stability in the long run?

Mr. FREEMAN. The answer is "Yes." Whenever you earmark a tax for a particular purpose and expect that function from that point on to subsist on that earmarked tax, you have removed the flexibility and the exercise of judgment.

Representative MILLS. And the real value, from the point of view of the Employment Act of 1946, would be for the program to operate at a time when it will promote economic growth and stability and to not operate at a time when it will promote instability and deter economic growth. Is that your point of view?

Mr. FREEMAN. Yes, sir. I may say that I am personally opposed to the earmarking of taxes. I have seen its bad effects at the State level and also abroad.

I believe that it would be far preferable to run the highway program through the budget. While the Congress probably could, as a rule, keep appropriations within certain revenues, that need not be an absolute measure, depending on whatever the situation may require.

Representative MILLS. It would not be so bad if we were proceeding constantly into a growing economy, perhaps, to put a limit. But when we view a program and order it to be executed over a period of some 13 to 16 years, and maybe even longer, it would be well in your opinion, for us to bring into the program as much flexibility as possible?

Mr. FREEMAN. Yes, sir.

Representative MILLS. Mr. Flaherty?

Mr. FLAHERTY. Mr. Chairman, I would agree with that statement. I think that one could not oppose the soundness of flexibility in Federal expenditures, particularly those that are planned to extend over a period of years.

I think one, of course, then faces the criteria that would be used to determine the basis of modification in the rate of expenditures. I would be content to let facts and studies determine that. My whole position with respect to the Federal highway program of 1956 is that it is a substantial step forward in the Federal Government's meeting a very, very serious problem.

I should like to make one comment, if I may, on a comment that Mr. Freeman made, the advantages of Federal Government expenditures entirely, rather than the 90-10 basis presently in the law.

I would suggest to the extent that it is possible, the responsibilities and rights of States be maintained and that they not be replaced by a 100-percent Federal expenditure responsibility, for the purpose of simplifying either administration or construction. The States do have a role to play in the Federal highway program. The highway problem, I think, is not merely the sum of the highway problems of the 48 States.

An obvious illustration of that would be provided by the construction of a State highway, planned in accordance with the latest criteria available to the State government, but not met at the State boundaries by a highway system of similar standards.

The utility of a State program, irrespective of the soundness of its planning, is somewhat limited to the extent that other systems do not complement it. It is in the area of planning on a national basis, or at least on a regional basis, rather than on a strictly localized basis, that the unique feature of the problem arises.

I think there would be merit to maintaining a contribution to the total program on the part of the States and participation by them in the actual construction processes, the laying out of funds, et cetera.

Representative MILLS. I would not want the record to convey the wrong impression of the thought in my mind in posing the question, nor Mr. Freeman's answer to this question of flexibility. I am sure neither of us are thinking in terms of such flexibility as would cause variations in expenditures on a month-to-month basis.

Mr. FREEMAN. Of course not.

Representative MILLS. We are thinking in cycles, of longer periods of time.

Mr. DUE, do you or Dr. Behling have any comment on the questions raised so far?

Mr. DUE. I have one point with respect to flexibility. Rather than having the Federal Government take over 100 percent of the financing, it should be possible to alter the formula according to business conditions.

I realize that the States cannot introduce much flexibility into their own programs as they now operate. But there is no reason why the Federal percentage could not be increased or decreased in such a way as to allow a change in the overall total expenditures from year to year in terms of business conditions. The Federal Government could provide 85 percent in 1 year and 75 percent in another year, for example.

I have one final word with respect to the role of the States.

I am still convinced that the States could finance modern highways just as well as the Federal Government can. I am also convinced that the States, to a very large degree, can plan their highway systems, and can develop them, without as much Federal participation as is involved in the new program. Obviously, they need some Federal assistance, particularly in order to insure adequate interstate connections. I still, however, feel that the States could do most of the job themselves. Most of the difficulty arose out of the fact that the State legislatures were not willing to raise motor-vehicle user levies enough to provide for modern highways. The trouble rested not with the State highway departments, but primarily with the State legislatures. They were so slow to act to provide increased funds.

Representative MILLS. Mr. Behling, have you any comments?

Mr. BEHLING. Yes. Viewing the thing broadly, I think we probably all would like to see greater flexibility of Federal expenditures in terms of the aims of the Employment Act of 1946, but in this matter of the highway program, let us not too easily put the blame for inflexibility on this trust fund plan. There is a more basic reason than that, it seems to me.

Let us all here today project our thinking ahead and ask ourselves: What is the economic outlook for the next 2 years? I think I can safely assert that none of us knows very certainly. A highway program gathers momentum; it is a very complex thing either at the Federal level or at the State level, with all sorts of considerations entering into it.

There is the acquisition of right-of-way. You cannot cut it off when the project is half done, and all that sort of thing. So I do not think we can realistically expect very much flexibility in a highway program until we reach that happy day when we say we know for sure what the economy is going to do within this next year and the year after that.

The basic problem is one of trying to predict where we are going. Just take a look backward a little minute. Before we had any trust fund plan at all, as we came out of World War II, the main reason for increasing the Federal highway program at that time, at least the one that was most insistently pressed, is, "We are going into a tailspin after the war, and we have to up our highway expenditures."

It did not happen, and we were spending more money on highways after the war, for that reason, during a period of very rapid inflation. These are the basic difficulties.

Representative MILLS. Are there any further comments by members of the panel?

Mr. HOUTHAKKER. I would like to make one comment on the comment you made of whether the trust idea itself precludes flexibility.

I am not sufficiently familiar with the technicalities on authorizations and appropriations. It seems to me it is conceivable that the receipts to the trust fund continue, but some of the expenditures are postponed, so that the trust fund would accumulate money which could be spent during a depression.

I think from the point of view of the Nation as a whole, this would have the same effect. More particularly, because public works need planning and preparation, it might be considered to let the acquisition of rights-of-way continue at the moment, but to defer some of the actual building, building in the physical sense of the word, because the acquisition of rights-of-way and other preparations may take a very long time and this might interfere with the effectiveness of public works as a countercyclical measure.

Mr. FREEMAN. Mr. Chairman, as long as we are discussing the effect of public works on the overall economy and the potential effect in counteracting economic fluctuations, I believe attention should be given to the fact that the Federal Government in direct construction accounts for only about one-fifth of our public works in the country. To be exact: 21 percent.

Seventy percent of our public works are financed by State and local governments, and the grant-in-aid contribution of the Federal Government is 9 percent. A contracyclical policy has a greater potential in State and local public works, than in Federal civil public works, which account only for 8 percent of all public construction.

The volume of State and local construction is influenced from the Federal level largely through grants-in-aid. I suggested in my paper that we would gain greater flexibility, and certain other advantages, if Federal grants-in-aid for State and local construction and other services, instead of being programmatic, were purely fiscal.

In other words, rather than have a grants-in-aid for water and sewerage systems, and hospitals and 7 or 8 dozen other categories, we would have only one monetary grant, the State or city could then decide what to spend it on.

I wonder if it would not be better if the decision were made locally whether the hospital or the sewer system or the urban expressway, or schools or various other facilities are more urgently needed and have a greater priority in one State or city than the other, and if Federal support were not earmarked, but simply on a fiscal basis.

The Congress each year would determine the amount of money it wants to supply to States and cities. If economic stimulation were intended, States and local governments could spend the funds more quickly unhampered by Federal regulations.

The main advantage of this proposal is that it eliminates the specter of Federal control which has been haunting, as you know, several of the existing and the proposed grants-in-aid programs for State and local governments.

Altogether now, we have about 90 Federal programs for grants-in-aid to State and local governments. If we had purely fiscal grants, there would be no need for a large Federal bureaucracy to supervise the grants. There would be no danger of Federal control of any particular State or local program. But State and local governments would still have the advantage of being able to benefit from the greater tax-raising capacity and debt capacity of the Federal Government.

Mr. FLAHERTY. Mr. Chairman, I have one additional thought which was suggested, I believe, by remarks of Mr. Houthakker and Mr. Freeman. It deals with this topic of fiscal flexibility. It has been observed that there are many features of the highway construction problem that are essentially long range in character.

One of the gentlemen on the panel referred, I believe, to the substantial time lead required for adequate planning. To the extent that a relatively economic transportation program be pursued, there would probably be some limits as to the degree of change that could be introduced in expenditures on an annual fiscal basis.

The procurement of sites, the complex of the engineering work, the length of time required to complete contracts, the gathering of construction resources, all could require up to 2 or 3 years. That fact does not argue against the need for flexibility within the highway construction program, but it does indicate an aspect of the problem that marks it somewhat differently from that of other problems.

Representative MILLS. We always come back to the highway program. It may be the larger program in expenditure, but I think what we have said with respect to highway construction could equally be said, could it not, with respect to the other elements that go into overall expenditures for transportation?

Mr. FLAHERTY. Surely.

Mr. FREEMAN. Mr. Chairman, I wonder whether the inflexibility is in the program or in the people who administer the program.

Representative MILLS. You are now before the Congress. We would like for it to be the latter. I hesitate to put the blame on the latter, because I think there is some inflexibility within the letter of the law, itself.

Mr. BEHLING. There is this difference that perhaps ought to be brought out, Mr. Chairman. Take waterway expenditures. There it is a matter of Federal control. At least you can get some flexibility control with respect to new starts and appropriations of the first sum of money that is going into a new project. It is much easier to do it there than it is on the highways.

Representative MILLS. Mr. Curtis, have you further questions?

Representative CURTIS. No, Mr. Chairman.

Representative MILLS. If not, we thank you gentlemen for your contributions you have made to our compendium, and your appearance and contributions given this morning.

Thank you very much.

The committee will stand in recess until 2 o'clock this afternoon in this room.

(The following was subsequently received for the record:)

REPORT TO THE SUBCOMMITTEE ON FISCAL POLICY OF THE JOINT ECONOMIC COMMITTEE ON PRINCIPLES GOVERNING HIGHWAY POLICIES OF THE DEPARTMENT OF COMMERCE

The Subcommittee on Fiscal Policy of the Joint Economic Committee has asked the Bureau of Public Roads through the Secretary of Commerce, for our comments on "The relationship of highway(s) * * * (1) to the processes of economic growth in the private sectors of the economy; (2) the usefulness or limitations of such programs for purposes of stabilization; and (3) the standards employed by the Department of Commerce in determining the kind and size of such programs requested."

It has long been obvious that highway traffic is intimately related to economic growth. But it has not been as obvious that the growth of highway traffic, and therefore of the economy, is limited by the facilities made available. Traffic has grown in the past when it was given adequate facilities. It will grow in the future if it is given adequate facilities. But when facilities have been inadequate, traffic growth has been limited. This has placed limitations on the growth of the economy. If it costs 20 percent more than necessary to move goods by truck, or takes 50 percent more time than necessary to drive to work, and if accident and repair bills are high, costs, prices, and productivity of the economy as a whole are affected.

Space will not permit a highly detailed analysis of this, but some illustrations of the interrelationships of highway capacity to the growth of the economy are worth examining even though only in brief fashion.

Highway traffic has grown first of all because total traffic grows faster than the economy as a whole. This may be illustrated by the growth of traffic in the relative full employment years of the twenties. The following table shows the trends in the total volume of rail freight, domestic water freight, and highway traffic with the years 1925-27 taken as 100.

TABLE 1.—Traffic per constant dollar private GNP¹

[1925-27=100]

	Rail ²	Water ³	Highway ⁴
1922.....	101	(^b)	61
1923.....	109	(^b)	68
1924.....	103	100	84
1925.....	100	97	90
1926.....	102	101	98
1927.....	106	101	110
1928.....	98	101	120
1929.....	96	106	130

¹ Private gross national product in 1947 dollars taken from table prepared by Joint Economic Committee

² Ton-miles as reported in Historical Statistics of the United States.

³ Net domestic tons as reported in Historical Statistics of the United States.

⁴ Vehicle-miles as reported by the Bureau of Public Roads. No breakdown is available between freight and passenger traffic for these years.

^b Not available.

While railroad tonnage dropped in relation to the volume of business done, water traffic and of course pipeline traffic, which is not reported for these years, grew steadily. Highway traffic more than doubled per constant dollar of gross national product from 1922-29. Traffic as a whole grew in the high employment years of the twenties and most of the growth was captured by highways.

Traffic is continuing to grow both in aggregate and in relation to the total volume of business done. The more complicated the economy gets the more the exchange of goods and services in the production process. And highway traffic has grown faster than traffic as a whole. It even grew 4.4 percent in 1930, when business dropped 9 percent. Highway traffic went up almost 5 percent more in 1931, though business dropped another 7 percent. Even in the depths of the depression, travel in relation to the volume of business done continued to rise. In 1933 though business as a whole had dropped over 30 percent, the total volume of highway traffic had risen, and the number of vehicle-miles traveled per unit of business or services performed that year was 46 percent greater than it had been in the boom year of 1929.

Then an important thing happened. Highway construction, which had been maintained fairly well through 1931, and moderately well in 1932, dropped in 1933 to about 40 percent below the 1930-31 rate in constant dollars. New construction no longer kept pace with the wear and tear on existing highways, and with the potential growth in traffic. The roads became congested. We had hardening of our traffic arteries. So the volume of traffic in relation to the volume of business had to decline. This made it more difficult for business to revive.

There was a modest increase in highway expenditure in 1936-38, and traffic again grew in relation to business in 1937-38. But the volume of expenditure on highways was not increased after 1939, and the volume of traffic again slowed down in relation to business. When we added highways, traffic volume grew; when we did not add to the highway capacity, traffic suffered.

This can be shown in several ways. The crudest way is to relate highway-construction expenditures to travel. This is done in table 2. This table shows, in 1947-49 prices, that the volume of new construction per vehicle-mile traveled, which averaged 1.18 cents from 1921-29 and was 1.24 cents in 1930, dropped to 0.78 cent per vehicle mile in 1933, and to 0.21 cent in 1945.

Even this drop, sharp as it is, badly understates the extent of the decline in real expenditures for expanding highway capacity. With the passing of time, the age of the existing system increased, and the amount of work needed for reconstruction purposes increased. So, a smaller and smaller proportion of construction was available for expanding capacity. This can be shown by comparing the depreciated value of the highways with the traffic they have had to carry. The result is somewhat different from what is found by comparing construction figures with traffic.

Table 3 shows the result of dividing the traffic that roads have carried into their capacity as measured by depreciated investment.¹ The result is expressed

¹ See Capital Investment in Highways, Highway Research Board, January 1953. The data are kept current by Public Roads.

in index numbers with the capacity per unit of traffic in 1939 taken as 100. This shows highway capacity reaching a peak of 95 in 1933 in terms of the demands of that year. Traffic grew faster than capacity and the index dropped to 90 in 1937. Construction in 1937-40 again exceeded the increase in traffic and the capacity index reached 100 for the first time in 1939-40.

It is very easy to demonstrate that inadequate facilities limit transportation capacities, and therefore the volume of goods that can be moved comfortably. And we know that our bottlenecked highways have limited traffic, and thereby the volume of business. And we know this has added to the costs of doing business. But it is more difficult to demonstrate how limiting the capacity to move goods, particularly by one medium only, has limited the growth of the economy. We surmise it must be so, all of us know intuitively this must be so. We know that adequate highway facilities encourage business and residential construction as well as encourage more traffic. But the demonstration is somewhat complicated.

It is difficult therefore to prove that the slowdown in traffic growth that followed the slowdown in highway construction after 1932 had a particularly retarding effect on the economy of the thirties. Chart No. 1, however, shows how highway traffic per dollar of gross national product declined after 1933 when highway construction was curtailed. The chart suggests how traffic might have continued to grow though at a very reduced rate, had facilities been adequate. It suggests that if highway facilities had been adequate for the traffic, vehicle miles per dollar of gross national product might have been possibly 13 percent greater than they actually were by 1937. The extra thirty-six-billion-odd vehicle-miles that adequate highway facilities might have made possible, at 5 cents a mile in 1937 prices would have added about \$2 billion directly, and possibly another \$2 billion indirectly to the gross national product. This would have been an increase of about 4.5 percent in the gross national product of that year. Four billion extra 1937 (or about \$8 billion 1957 dollars) would have been very welcome in the thirties.

We can never prove whether this or any similar chart is right. We cannot know what might have happened if we had built adequate roads because we cannot bring back the past. But when we see how highway traffic grew per dollar of business done, per dollar of gross national product, while we were building highways at a high rate, it is difficult to believe that if we had not checked highway building, and if highway capacity had been kept adequate, traffic would have ceased to grow overnight as it did.

From 1921-29 years, years of general prosperity, the gross national product grew about 60 percent² in constant dollars. The volume of highway traffic grew about 360 percent. That is, while the gross national product grew about 6 percent compounded annually, traffic grew over 17 percent per year or nearly 3 times as fast. Traffic grew even faster in relation to gross national product when business slowed down after 1929 as long as highway construction was being maintained, than it grew even in the prosperous years before 1929. By 1932 highway traffic was up 18 points, or was 28 percent greater per dollar of gross national product than it was in 1929. It was not until after highway construction was curtailed in 1933, that highway traffic stopped growing. By 1935 it was 9 points, or about 6 percent below the trend line.

It is not to be expected that highway traffic would have continued to grow during the thirties at the rate at which it grew in the twenties. A part of that growth was the result of diversion of freight and passenger traffic from the rails, and from local mass-transportation facilities, at a rate which could not be sustained. But the sharp cessation of growth shown in table 4 was not a development which would be expected in a free economy with adequate resources devoted to highways. It would appear that road traffic stopped growing, in large part, because of bottlenecks in road capacity that appeared when construction was curtailed.

Because our roads have been kept inadequate since 1933, it has been physically impossible for the economy to get the traffic it needed to function efficiently. As a result of the modest revival in highway construction which occurred about 1950, traffic has again reached 1932 levels, in relation to the volume of business being done. This has been possible because, after allowing for replacement expenditures, we are now putting about as much money into new road construction per year, in physical terms, as we did in 1930-31, though, as shown in table 4,

² 60.2 percent according to the estimates of the Joint Economic Committee.

we are today spending only about half as much per vehicle-mile traveled, including replacement expenditures, as we did in the twenties and in the relatively depressed years of 1930-31. And, as mentioned before, we have been adding far less proportionately to capacity each year with this expenditure than we did back in 1930-31, because so much has to go to reconstruction.

We added about 19 percent per year, compounded annually, to the value of our highways during the twenties, but during the fifties we have been adding only about 6 percent per year to this value. Because the highway system is so big, it seems a though we are spending a great deal on it. But, in relation to the size of the system, and of the United States, and per vehicle-mile traveled, we are spending only about half as much today, in constant dollars, as we spent in 1930.

All this may help us understand why we are not using the roads today any more, per unit of business done, than we did in 1932, and why the growth in traffic, in relation to business, has been checked for over 20 years.

But supposing we had kept our roads adequate; what waiting traffic would have been released? Or, now that we are making them more nearly adequate, will the growth that was cut off in 1933 be resumed? What is the highway-traffic potential today, and what will it be in a free economy with adequate control?

What would have happened if adequate capacity had been available throughout the thirties and after World War II may be suggested by chart I. This chart was drawn, using the assumption that the growth in highway traffic per dollar of gross national product would have flattened out sharply after 1933 if adequate roads had been available rather than reversing itself sharply as it did. It suggests how the curve might have flattened out.

This chart suggests also that, had there been adequate highways at all times, current traffic might be in the neighborhood of 900 billion vehicle-miles. Actually, highway traffic this year probably will not much exceed 650 billion. The difference between today's potential and today's realized traffic is due, of course, in part, to the fact that traffic would flow more freely on adequate roads than on the crowded roads we now have. And the difference is due, in part, to the fact that crowded roads divert traffic. Were highways adequate, for instance, there would be a higher amount of intercity traffic by freeway. A lower proportion, but not a lower amount, of this traffic might go by air. And the greater volume of traffic would flow at less cost, thereby making the economy more efficient.

From the good-employment year of 1926 to the good-employment year of 1956 (including the depression years), highway traffic grew over 7 percent per year, compounded annually, even without adequate roads. From the good-employment year of 1952 to the good-employment year of 1956, it grew over 5 percent per year, compounded annually. From the high-employment year of 1953 to the high-employment year of 1955, highway traffic grew 5 percent per year, still with inadequate roads. So, the Bureau of Public Roads feels that if we build highways adequate to permit a growth of 5 percent in traffic each year we are likely to get such a growth. We certainly will not get such a growth if we do not build a system which will permit it.

Some of the past growth has been due to diversion from rail or other mediums of a nature that will not occur in the future. However, had traffic facilities been greater, the growth, without reference to diversion, would have been greater. Now that we are again planning to build adequate roads, we should plan so that, if we have a high-employment growth of about 3½ percent per year in the economy, this can be supported by a growth of about 5 percent in vehicle-miles in the period during which we are bringing the highways up to par. After that, highway traffic may grow only slightly more than the gross national product, or possibly 4 percent per year.

It will probably take at least 15 years for the highway program as a whole, Federal, State, and local, to provide adequate roads. Should traffic grow at an average of 5 percent per year during these 15 years, and at 4 percent thereafter, traffic would approximate 1.5 trillion miles in 1975. Unless highway traffic approximates this volume, or unless other means of transportation have supplanted part of the services highways now render, it may be difficult for the gross national product to reach the projected \$750 billion figure by 1975.

Because of the increasing amount of replacement construction, this means that highway expenditures must rise by roughly 10 percent per year in real terms to permit a 5-percent increase per year in traffic. Construction expenditures grew by about 11 percent per year from 1951 to 1956. They are expected to grow about 3 percent in 1957 and by over 10 percent in 1958, in constant

dollars. A chart is attached, showing how highway construction has grown in the past, in years of general prosperity. The projected growth of 10 percent per year in highway construction is a little lower than the rate experienced in both previous periods of highway growth (1923-30 and 1947-1956). It appears to be a rate of growth necessary to traffic growth and to a healthy growth in the economy. It would result in a construction outlay of over \$6.5 billion in construction expenditures in 1957 dollars by 1960, \$8¼ billion by 1965, and \$10 billion by 1970. These figures include outlays on State and local roads not in the Federal-aid systems, as well as outlays on the Federal-aid systems.

While a rate of growth of this order of magnitude is lower than had been envisioned by many, it is a more workable rate of growth than a crash program would yield. An effort to push up the volume of construction much more rapidly would result in inflationary pressures and would divert resources from other important types of construction such as some utility construction. A more rapid expansion might increase prices more than it would increase construction.

Nothing is said in this analysis about such things as multiplier effects, or the employment generated per dollar of expenditures, etc. These considerations are important at times when additional funds are being pumped into a sagging economy. But they are not important in a high-employment economy such as we anticipate, in general, for the future, and which is one of the objectives of these hearings. In addition, it has been proven many times that poor highways can be more expensive than good highways. More is spent on insurance, accidents, extra wear and tear in driving over inadequate roads than the amortized cost of building well located and designed roads plus the cost of driving over these good roads.³ Building highways does not necessarily mean comparable additional costs to the economy, or of using highways, but, rather, a shifting of outlays from, say, paying for accidents, to paying for more and better transportation.

So, outlays for highways benefit society by reducing transportation costs, as well as by facilitating the movement of goods and people which would otherwise be more difficult and more expensive, etc. Expanding highway outlays are needed to make a healthy growth in the gross national product possible.

But, if we should not build adequate roads fast enough, and so compel highway traffic growth to be limited to, say 3 percent per year, the economy as a whole will grow at a lower rate than if we build adequate roads.

Should traffic grow at 5 percent per year from 1956 to 1961, vehicle-miles would exceed 800 billion by that time. But, should it grow at only 3 percent, vehicle-miles would come only to a little under 725 billion in 1961. The difference of 75 billion, roughly, at 10 cents a vehicle-mile, including truck traffic, would represent a direct loss of about \$7.5 billion to the total gross national product in 1961. Cumulatively, the difference through the 5-year period would come to over 200 billion vehicle-miles, or, at 10 cents a mile, to roughly \$20 billion.

The gross national product probably would not be \$7.5 billion lower in 1961 if traffic were to be kept congested than if adequate highways were built, because of price rises that would occur as a result of costs arising from congestion. But, on a constant dollar basis, the gross national product might be \$7.5 billion lower under congested traffic than free traffic conditions.

This, of course, is not meant to imply that expenditures on highways should take precedence over everything else, but, rather, that well-selected expenditures for highway improvements add to the national well-being, return more than they cost, and support rather than hinder economic growth. Other outlays, too, may prove profitable to the economy, and, at times, a choice may have to be made between highways and other types of outlays, each of which would return a good profit to society.

³ The Bureau of Public Roads has many studies in its files showing the relative costs of using good and of using poor roads. Such studies, which were used in reaching the conclusion that good roads are cheaper for the economy than poor roads, are available to the subcommittee, or its staff, if desired.

We have stressed here only the building of adequate, well-located, and well-designed roads. The Department of Commerce believes that, unless a road will pay for itself, it should not be built. It may pay for itself through making possible the use of other important roads, or through tapping resources otherwise unobtainable. But, if a road as a whole will more than return its costs to the jurisdiction that pays for it, the building of that road should be considered.

The subcommittee asks about the usefulness or limitations of highway programs for purposes of stabilization. There are definite limitations to the use that can be made of federally aided highway construction for economic stability. These limitations are both legal and economic.

The legal limitations come particularly from the fact that highway programs are State programs. Under laws that have been on the books for about 40 years, the Federal Government allocates funds to the States on the basis of criteria laid down by Congress. These allocations may be used only by the States to which they are made. There is very little leeway once allocations are made. The States have the right to use all their funds for projects coming within the standards set by Congress and by the regulations of the Bureau of Public Roads, and, within certain limits, may spend the money as slowly or rapidly as their resources and desires permit.

Actually, of course, adjustments, particularly downward adjustments, can be made. When prices rose rapidly in 1947, Commissioner McDonald of Public Roads and General Fleming of the Federal Works Agency asked and secured the cooperation of States, cities, and counties in slowing up the rate of highway construction. This was a voluntary, and not a legal, matter. When such problems are well understood by States and local governments, they have a habit of cooperating with the Federal Government. one. Additional funds would have to be provided if the States and localities were to voluntarily accelerate their rate of expenditure.

Methods could be developed which would enable the Federal Government to advance additional funds for planning purposes so that a reservoir of highway plans could be available and could be kept up to date, and so that accelerated construction could be financed, if necessary.

The basic problem of using Federal highway construction as an anticyclical and economic stability device is, however, engineering and economic not legal or even financial. The skills, and machinery and management required to build highways are increasingly specialized. Contractors who are accustomed to building office buildings or houses do not have the facilities to compete with highway contractors or to build highways efficiently without such competition. The equipment used to build modern highways rivals in cost and in its relationship to value added, the equipment used in modern factories. It would be about as difficult to get any automotive parts plant to produce TV sets as to get a homebuilder to build highways. Unemployment in textile mills, housing construction, automotive plants, or in other industries could not be relieved appreciably or quickly by accelerating highway construction. If a highway program is going at its best rate it would be utilizing its resources at the optimum rate. It should have enough capacity to create competition, but not enough to create unemployment. Rapid acceleration of highway building could therefore mean first of all a shift to overtime on the part of the men employed in the highway industry, rather than the creation of work for men in other industries.

This is not completely true, of course. There may be a possibility of interchange within the field of engineering construction itself. If there are firms which are out of work, and which ordinarily build dams or do other work similar to that of highway construction and which have adequate equipment close enough to areas in which highway construction volume can be accelerated, it might be possible on occasion to tap such resources. Should the Government, for instance, cut back some of the work of the Corps of Engineers, some of the resulting unemployment could be taken care of by increasing highway work. But if work is needed for contracyclical reasons, it is not highly probable that the work of the corps would be curtailed.

The main responsibility of the Federal Government in its relationship to highways should be the development of an adequate highway system at a minimum cost. This means a steady and slowly rising volume of activity and of employment for the industry. Stability for the economy as a whole cannot be served effectively by creating instability in a few segments in order to offset instability in other segments.

Another handicap in the use of highway construction as an anticyclical device is the long lead time. Generally, many months are required to prepare plans and working drawings even after rights-of-way have been secured. On the average it takes about 3 months after approval of a project before the construction contract is let, and more time elapses before work is started, and 6 months may elapse before full employment is reached.

There is one aspect of highway work in which there may be much less than average need for a stable rate of operations and in which work can be speeded up rapidly. This is highway maintenance and repair. A good deal of maintenance can be done with light equipment and some can be done with relatively unskilled hand labor. Proposals for varying the volume of highway construction might therefore be better directed at maintenance and repair than at new building.

The Bureau of Public Roads looked into this subject some time ago at the request of CEA and came to the conclusion that additional funds could be spent much more effectively and rapidly in highway maintenance than in the fields of new construction. If a need for such acceleration should arise, Congress might consider funds for this purpose first.

The subcommittee asks finally for a statement about the standards employed in determining the kind and size of programs.

Before approving the programing, planning, or building of any particular road, the Bureau receives the results of elaborate studies as to the specific needs of the State and region. The proposal for a particular road must meet, in addition to economic criteria, very specific engineering criteria. These criteria include standards designed to insure that the road will stand up under the traffic it will receive, but that it will not be more expensive to build than necessary. The criteria also are designed to maintain safety standards, such as setting minimum sight distances, lane widths, etc.

These standards are under constant study and review. An elaborate test program is now under way in Illinois, for instance. This is being supervised by the Highway Research Board of the National Academy of Sciences. Various designs are being built from relatively thin to possibly overdesigned sections. Many different materials too are being subjected to scientifically controlled tests to learn what types of construction will and will not take what kind of traffic. This is done because, while the Bureau of Public Roads has very specific standards, it also is constantly on the alert to improve these standards. So today's standards are not to be taken as the final word on the subject. They are, however, the latest word on the subject.

The Bureau of Public Roads is faced with a type of problem which is not brought out directly by the questions asked by the subcommittee. This problem is the impact which a given stretch of highway development may have on the growth of metropolitan areas. A highway laid over one route may divide a city in two, and force a heavy volume of demolition of many types of properties. Routed elsewhere, the highway may serve as an effective barrier to the encroachment of industry on commercial or residential areas and at the same time it may function as an artery serving both.

The Bureau is very conscious of the great impact its operations can have on community development and is appraising programs not only in the light of anticipated traffic, but also in the light of the possible impact of the traffic and of the rights-of-way on community growth. These two aspects of course are mutually interrelated. If highways are laid out so as to encourage healthy growth, this in turn will create more traffic. In planning highways so as to encourage growth, it becomes necessary at the same time to provide potential capacities, at least in terms of rights-of-way for future traffic lanes, which will support traffic resulting from the more adequate highways of the growing communities. Such highways, when properly designed and located, pay for themselves, not only from the earnings flowing from the gas tax and other direct revenues, but also indirectly from the more healthy, more active community life which they help support.

TABLE 2.—*Vehicle-miles and highway construction in 1947-49 prices*

Year	Highway construction (in billions)	Travel vehicle-miles (billions)	Ratio (cents per mile)	Year	Highway construction (in billions)	Travel vehicle-miles (billions)	Ratio (cents per mile)
1921.....	\$1.058	55.0	1.92	1939.....	\$2.478	285.4	0.87
1922.....	1.192	67.7	1.76	1940.....	2.409	302.1	.80
1923.....	.983	85.0	1.16	1941.....	1.739	333.4	.52
1924.....	1.257	104.8	1.20	1942.....	.931	267.1	.35
1925.....	1.448	122.3	1.18	1943.....	.576	206.7	.25
1926.....	1.486	140.7	1.06	1944.....	.461	211.6	.22
1927.....	1.726	158.4	1.09	1945.....	.526	248.9	.21
1928.....	1.947	172.9	1.13	1946.....	1.074	340.7	.32
1929.....	1.978	197.7	1.00	1947.....	1.532	370.6	.41
1930.....	2.548	206.3	1.24	1948.....	1.672	397.6	.42
1931.....	2.542	216.2	1.18	1949.....	2.128	424.5	.50
1932.....	2.259	200.5	1.13	1950.....	2.367	458.2	.52
1933.....	1.567	200.6	.78	1951.....	2.349	491.1	.48
1934.....	1.636	215.6	.76	1952.....	2.489	513.6	.48
1935.....	1.448	228.6	.63	1953.....	2.851	544.4	.52
1936.....	2.151	252.1	.85	1954.....	3.689	560.8	.66
1937.....	2.064	270.1	.76	1955.....	3.812	603.4	.63
1938.....	2.492	271.2	.91	1956.....	3.920	628.4	.62

Source: Department of Commerce.

TABLE 3.—*Highway vehicle-miles and highway-depreciated investment*

Year	Vehicle-miles (1940=100%)	Depreciated investment (1940=100%)	Ratio cost-benefit (percent)	Year	Vehicle-miles (1940=100%)	Depreciated investment (1940=100%)	Ratio cost-benefit (percent)
(A)	(B)	(C)		(A)	(B)	(C)	
1920.....	14.8	8.6	58	1938.....	89.8	88.2	98
1921.....	18.2	11.8	64	1939.....	94.5	94.6	100
1922.....	22.4	14.9	67	1940.....	100.0	100.0	100
1923.....	28.1	17.2	61	1941.....	110.4	102.2	93
1924.....	34.7	20.2	58	1942.....	88.4	100.8	114
1925.....	40.4	23.8	59	1943.....	68.3	97.6	143
1926.....	46.5	27.3	59	1944.....	69.9	94.4	135
1927.....	52.4	31.5	60	1945.....	82.3	91.4	111
1928.....	47.2	36.6	64	1946.....	112.7	90.1	80
1929.....	65.5	41.4	63	1947.....	122.5	90.6	74
1930.....	68.3	48.1	70	1948.....	131.5	91.7	70
1931.....	71.6	54.9	77	1949.....	140.3	94.1	67
1932.....	66.4	60.2	91	1950.....	151.7	97.3	64
1933.....	66.4	63.1	95	1951.....	162.3	100.3	62
1934.....	71.4	67.1	94	1952.....	169.4	103.6	61
1935.....	75.7	69.7	92	1953.....	178.9	107.7	60
1936.....	83.4	75.8	91	1954.....	183.6	112.4	61
1937.....	89.4	80.7	90	1955.....	194.3	119.4	61
				1956.....	208.0	137.4	66

Source: Bureau of Public Roads.

TABLE 4.—Gross national product and vehicle miles

Year	Vehicle-miles (billions)	Gross national product in 1955 dollars (billions)	Vehicle miles per \$100 (1955 dollars)	Trend line
1921	55.0	114.0	48	45
1922	67.7	132.0	52	53
1923	85.0	149.0	57	61
1924	104.8	148.0	71	69
1925	122.3	162.0	76	77
1926	140.7	170.0	83	85
1927	158.5	172.5	92	93
1928	172.9	172.5	100	101
1929	197.7	181.9	109	109
1930	206.7	164.7	117	117
1931	216.2	152.7	142	125
1932	200.5	129.8	155	133
1933	200.6	126.5	159	141
1934	215.6	137.5	155	149
1935	228.6	154.2	148	157
1936	232.1	174.2	145	165
1937	270.1	185.0	146	173
1938	271.2	176.5	154	181
1939	285.4	190.4	150	189
1940	302.1	207.7	146	197
1949	424.5	294.9	144	205
1950	458.2	321.8	142	-----
1951	491.1	345.6	142	-----
1952	513.6	357.5	144	-----
1953	544.4	373.0	146	-----
1954	560.9	365.6	153	-----
1955	603.4	390.8	154	-----
1956	628.4	409.3	154	261
1960 (projected)	725-775	455.0	160-170	-----
1965 (projected)	900-1,000	535.0	170-190	-----
1970 (projected)	1,150-1,300	635.0	180-205	-----
1975 (projected)	1,400-1,600	750.0	185-215	-----

Source: U. S. Dept. of Commerce.

DEPARTMENT OF COMMERCE,
BUREAU OF PUBLIC ROADS,
Washington, November 20, 1957.

Mr. NORMAN TURE,
Joint Economic Committee,
Senate Office Building, Washington, D. C.

DEAR MR. TURE: Enclosed are the charts referred to in the report to the Subcommittee on Fiscal Policy on Principles Governing Highway Policies of the Department of Commerce, dated September 26, 1957.

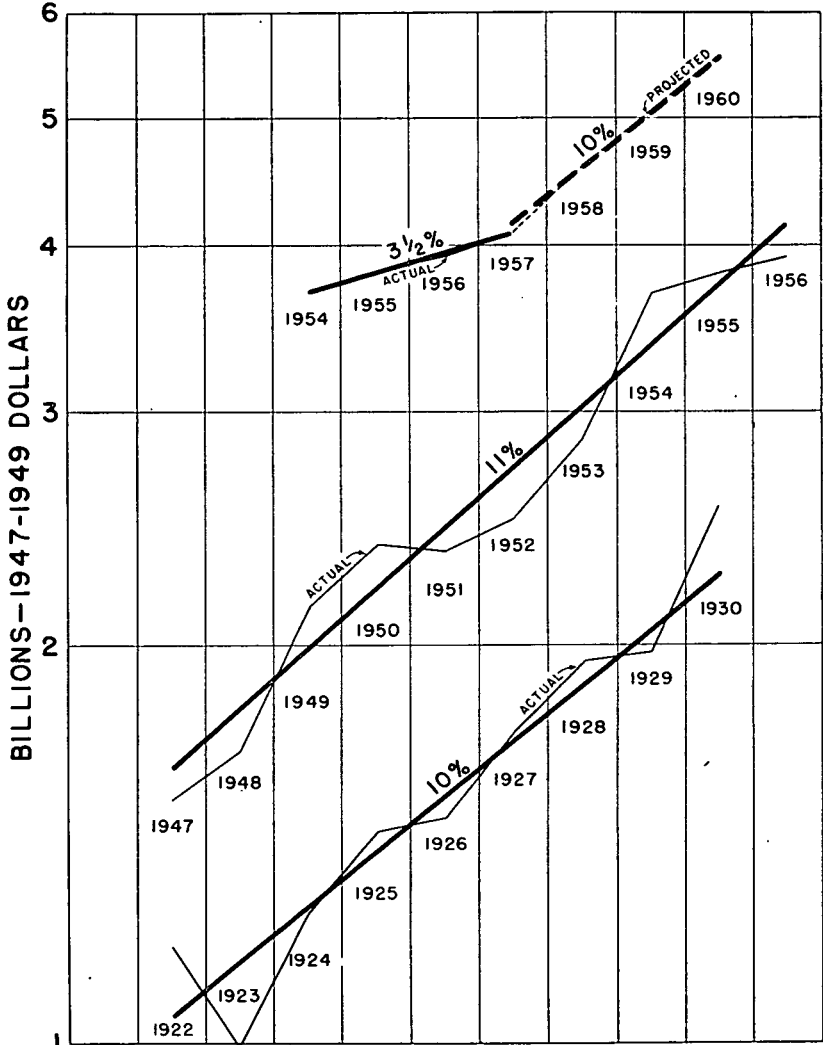
These charts are forwarded to you at the request of Mr. Robinson Newcomb.

Sincerely yours,

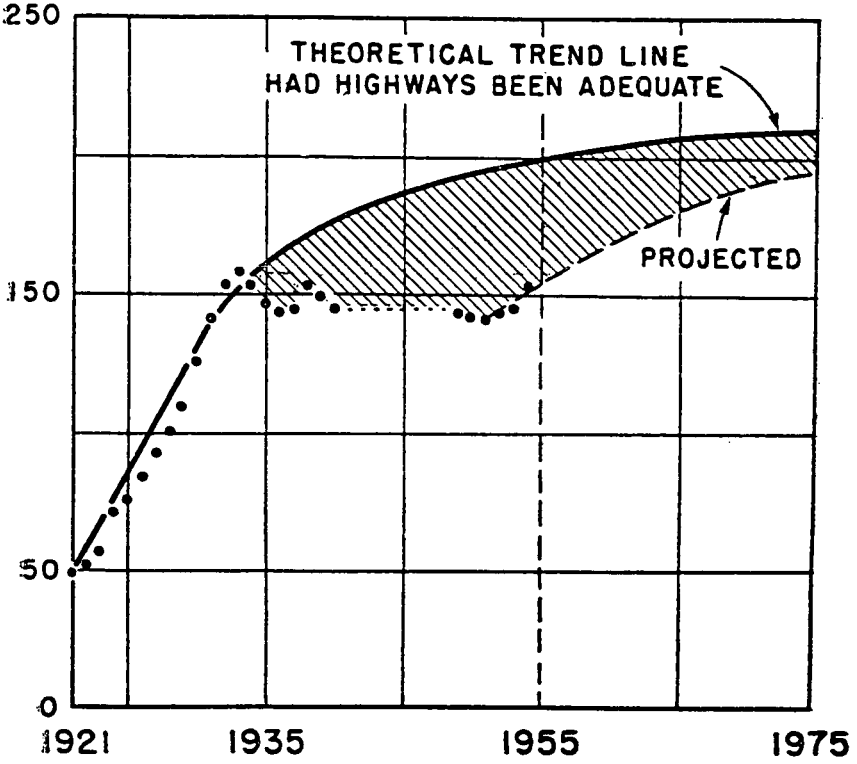
R. W. KRUSER,
Deputy Assistant Commissioner.

Enclosures.

GROWTH IN HIGHWAY CONSTRUCTION ACTIVITY
IN BILLIONS OF 1947-1949 DOLLARS



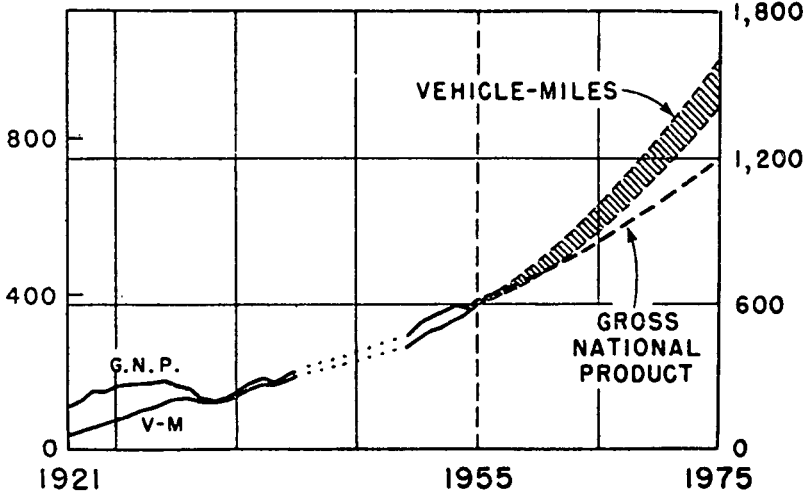
VEHICLE-MILES PER \$100
GROSS NATIONAL PRODUCT
(1955 dollars)



POTENTIAL TRAFFIC WITH ADEQUATE HIGHWAYS*

GROSS NATIONAL PRODUCT
(in billions of 1955 dollars)

VEHICLE-MILES
(in billions)



*BASED ON DATA IN FIG. 1 AND DEPT. OF COMMERCE PROJECTIONS OF G. N. P.

(Whereupon, at 12:17 p. m., the subcommittee recessed, to reconvene at 2 p. m. of the same day.)

AFTERNOON SESSION

Representative MILLS. The subcommittee will please come to order.

This afternoon the Subcommittee on Fiscal Policy concludes its study of Federal expenditure policy for economic growth and stability with consideration of Federal expenditure programs in the area of research and development.

In many ways, I believe it is fitting that this discussion should come as a climax to the entire set of hearings. Previous panels have impressed on us the basic relationship which exists between the scope and character of research activity—both pure and applied—and the fundamental growth potentials of the economy. Moreover, recent developments have graphically demonstrated the importance of research and developmental activities for the effectiveness of our defense preparations. Problems of criteria for determining the types of programs that should be undertaken with Federal funds and methods by which these funds can be most effectively employed in research are our principal concern here this afternoon.

Each panelist will be given 5 minutes in which to summarize his paper. We will proceed in the order in which the papers appear in the compendium, and we will hear from each panelist without interruption. Upon completion of the opening statements, the subcommittee will question the panelists for the balance of the session. This part of the session in preceding panels has been informal and we hope it will be equally so this afternoon. All members of the panel should feel free to participate—commenting on papers presented by other panelists, on subcommittee members' questions, and raising questions of their own.

The first statement will be given by Mr. Ralph E. Burgess, economist with the American Cyanamid Co., and formerly on the staff of one of the very important joint committees of the Congress. Mr. Burgess, you are recognized for 5 minutes.

STATEMENT OF RALPH E. BURGESS, ECONOMIST, AMERICAN CYANAMID CO.

Mr. BURGESS. Thank you, Mr. Mills. It is a pleasure, as always, to participate in the discussions before this committee. The subject of Federal research expenditure obviously has taken on quite a different complexion than it had when this subject was assigned to us earlier this year.

The appearance in the heavens of two Soviet earth satellites, since the writing of the body of my paper—of which this statement is a summary—has not necessitated revisions in its content. However, in view of its compelling urgency, our present situation deserves comment, which I shall reserve for my closing remarks.

GROWTH

Economic growth has definitely been associated with research activity, private as well as Government sponsored. The nature of research spending—the allocation of research funds to alternative projects—and the results from successful research are its vital features rather than the sheer magnitude of amounts spent.

Government projects are now commanding the attention of about one-third of our research scientists and more than two-thirds of these are doing research associated with national security. This being the case, it is fortunate that scientific breakthroughs toward military objectives often have civilian applications.

Growth results of the nondefense Federal research programs are impossible to measure exactly but it is certain that phenomenal mileage is obtained from every research dollar. One need only cite the remarkable gains in agricultural output and efficiency to highlight the growth contributions of these programs.

STABILITY

The immediate goals of research spending; namely, (a) inducing obsolescence, (b) creating new or improved products, and (c) increasing efficiency, are essentially divorced from overt efforts to stabilize the economy through compensatory Government spending and tend to be relatively insensitive to fluctuation in general business conditions. As long as this situation prevails, such spending will act as a sta-

bilizing force but, because of the amounts involved, not an important one. Steady expenditures in the aggregate suggest, but do not assure, a steady flow of technological progress.

PUBLIC VERSUS PRIVATE RESEARCH

Despite a currently widely accepted point of view that basic research in the military field has been inadequate, there are no persuasive reasons for assuming that the present distribution of Federal research funds between basic and applied research and among specific projects is the optimum distribution to insure economic growth and stability. This entire topic lies in the area of theoretical dispute. For example:

1. Does Federal activity in a given research area stimulate or depress private efforts in the same area?

2. Is the Federal Government vested with a special responsibility to investigate research areas not normally entered by private industry—in particular, basic research—or is it sufficient for the Government merely to satisfy its immediate research needs, giving only passing attention to long-run requirements?

3. What Federal research projects would be undertaken by private industry on its own behalf, if Government withdrew from the field?

With respect to the present research crisis, I have a few comments to make. How do these considerations apply to our present crisis? We must realize that our supply of creative genius is at present fully utilized. To accomplish more basic research we must, therefore, reallocate this scarce resource and, in the absence of coercion, or voluntary action taken for patriotic reasons, this shift will have to be accomplished through competitive bidding for research time. It will probably mean rising research costs for Government since achieving offsetting economies in Federal nondefense research programs would seem to be at least questionable. The relative importance of Federal research in the total may be expected to increase while that conducted exclusively for the purposes of private industry may be expected to fall in respect to both size and quality of research programs. If increased research spending creates a budgetary problem, as well it may, the required additional funds should be made up out of savings in domestic, nonresearch, nondefense spending.

The effects this shift will have upon our overall economic growth and stability cannot be foretold. The actual amounts of money involved are so small even doubling them could conceivably have little or no effect on the economy as a whole. Pouring more of our research talent into defense—if, indeed, there is any more of the required type of skill for the Government to claim—could result eventually in a reduction in the flow of new civilian products, to the small extent that defense findings have no civilian applications. But strictly speaking, development of fewer new products does not necessarily mean slowed economic growth in the terms most economists think of it, namely, the rate of output per man-hour. The rate of improvement in our standard of living could decline slightly as a result of these changes but this would not show up in the short run, and like the gains from research themselves would take time to work out and would be thoroughly hidden in the hosts of detail.

Let us not lose sight of what appear to be the major factors in our present situation. We face a short-term shortage of creative genius in certain restricted but highly strategic areas. It would appear that lack of a resource, rather than misuse of resources, is at the bottom of our dilemma. We are about to effect a reallocation of our research talents in an effort to fill this gap. It is unlikely that this reallocation will generate any profound changes in the forces making for economic growth and stability, although it does seem probable that we shall attain some of our immediate aims with respect to space travel and military weapons. Steps that may now be taken to broaden scientific training in this country are in the long run likely to produce a far greater stimulus to economic growth than an immediate redirection of the research effort, important as that seems.

The Soviet Union appears to have surpassed our efforts in some scientific areas and conceivably may be about to do so in others. We must accept the fact that a totalitarian environment has been able to give birth to real intellectual progress. The core of the problem lies here and not, as for the moment seems so essential, in conquering outer space. Ten years ago, the Steelman report summarized the then current situation as follows:

The United States has no unified or comprehensive policy on scientific research or the support of science. In the present (1947) state of the world, this situation cannot be allowed to continue.

This same report recommended that—

* * * heavier emphasis be placed upon basic research * * *

and

* * * that the Federal Government support basic research in the universities and nonprofit research institutions.

We have made very little progress along these lines.

Let us not fail to take action now. Sights must be set. A policy backed by funds must be achieved. It must not be exclusively the effort of Government nor turned exclusively toward defense needs. It must be the fruit of the combined efforts of Government, business, and scholars. It must cover creative activity along a broad front and it must be a program that can be carried out in an atmosphere of freedom. Only thus can we be sure that our economy will continue to forge ahead of other nations, while we preserve our economic, political, and social ideals.

Representative MILLS. Thank you.

Our next panelist is Mr. E. Finley Carter, director, Stanford Research Institute.

Mr. Carter, you are recognized.

STATEMENT OF E. FINLEY CARTER, DIRECTOR, STANFORD RESEARCH INSTITUTE

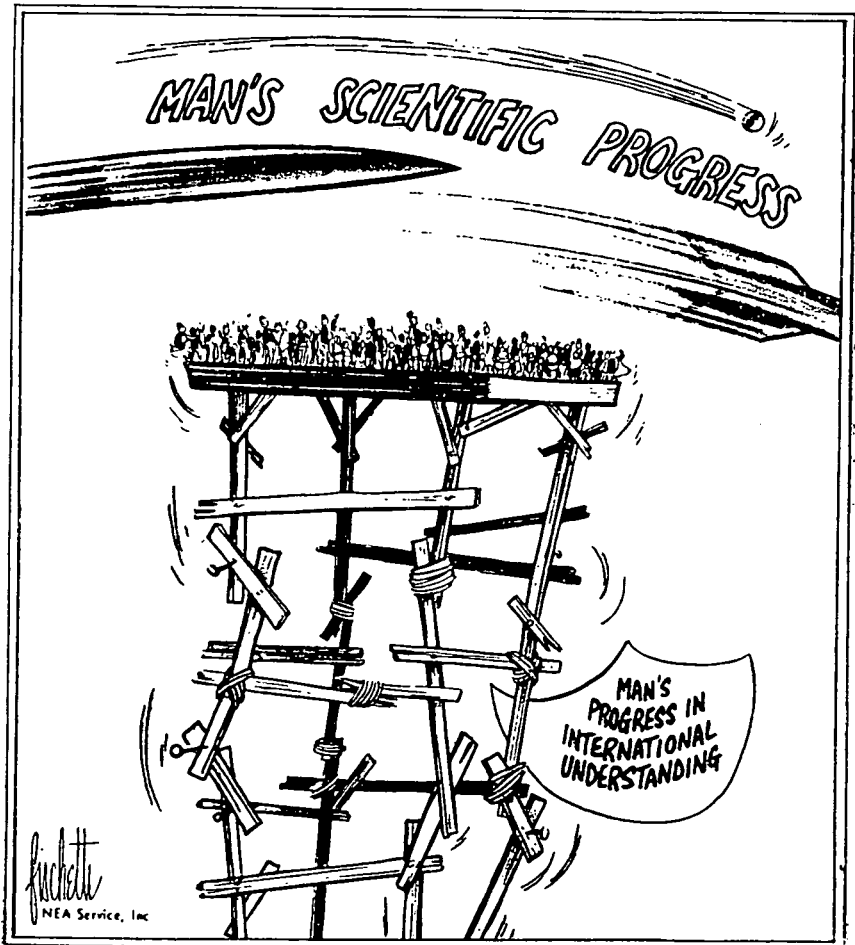
Mr. CARTER. I first want to thank you for this opportunity in my behalf and that of the institute that backs me. Then I wish to indicate that my approach may be slightly different, being more qualitative than quantitative to the approach to this subject, with emphasis upon effective management, upon continuity, and upon the breadth of the program.

Today all physical and social progress depends upon research to some degree. Research, whether supported by governments or private organizations, is vital to our national security, our economy, and our society.

The need for adequate research extends far beyond the physical sciences. Research techniques must be increasingly employed on human and material resources, and social phenomena. We cannot live indefinitely in a world where human understanding progresses at a snail's pace while technical progress is explosive. I think this picture by Mr. Fischetti will save a thousand words. It shows a platform with the mass of humans on it, while over the top of them go the sputnik, and so forth.

(The cartoon referred to follows:)

THE LAUNCHING PLATFORM



Mr. CARTER. Based on this belief, the paper presents three main points of view:

1. Research and development have long since proved their unique value in advancing our technical prowess in the realms of defense, industry, and business.

2. Research, under the leavening sponsorship of the Federal Government, can be equally effective in the realms of human relations, social affairs, and other public problems.

3. Research in this Nation must be coordinated and analyzed and its meaning and capabilities profoundly understood if we are to derive from our research and development efforts to full benefits intrinsic to the scientific approach.

Recent events make it appropriate to emphasize here my conviction of the need for continuity in research programs and for the effective management of Government-sponsored research.

Research and development in modern technology is largely conducted by teams made up of a great variety of skills and experiences. Such teams are not built overnight. They must be carefully constructed, and must undergo a period of adjustment and integration, before reaching their maximum productivity.

Today, however, just as we are coming to the realization that American science must be accelerated, we are placing in jeopardy some of the teams on which this effort must depend, by arbitrary cutbacks and stretchouts in research programs which have been underway for several years.

The achievements of research programs can be directly related to the maintenance of continuity in our research teams. Anything that results in their dispersal or in the impairment of their ability to concentrate upon vital objectives can cause far-reaching damage to our scientific programs through the loss of precious time.

Support for research was reasonably consistent from 1952 until last summer. During that time it was possible to develop stable, long-range research programs and to accrue worthwhile results, even in the face of acute shortages of technically qualified personnel. Since the beginning of this fiscal year, budgetary expediency has taken precedence over research effectiveness. Many teams of scientists are again threatened, and in some cases have already been damaged, by cancellation or failure to renew contracts.

We must seek every means in our power to avert the dislocation of our research teams, either by poorly planned infusions of large amounts of money, or by a policy of short-range budgeting for long-range programs. We must take a long-range approach to the funding of research programs so that continuity will be assured, either until the objective has been reached or until good judgment dictates termination.

Such an approach will provide positive economy by saving time and eliminating waste motion. The other method—the turning off and on of research funds—is a negative economy which can only result in damage to our research programs and our Nation.

There is a need for top management of research and development in its broadest sense by the Federal Government. The President has appointed an adviser for science and technology and directed that efforts be taken to accelerate defense programs. We heartily approve of this initial step, both as to the man and the mission, but we feel

that the purview of the scientific adviser must clearly include all areas of research which relate to the national welfare and progress. It is neither desirable nor practical to separate defense research from research efforts in other fields affecting the Nation's security and welfare.

In the heat of the present crisis, there will be no lack of advice on what courses our Government should follow henceforth. I do not pretend to be an expert in the fields of government organization. But I would stress the urgent necessity for a well-designed, well-thought-out program of scientific management rather than a hastily improvised superstructure imposed upon already existing organizations.

Inherent in such an approach is a reevaluation and a reorganization of scientific management in the Federal Government. Also inherent is leadership which is given the highest possible status, and which is manned by the best people available. It is our view that scientific management must be accorded the same status as is the management of our international affairs, of our natural resources, and of our financial policies. Modern corporate structures accord this status to research. It is becoming evident that Government organization has lagged behind in this respect.

In summary, we need to recognize that science—both human and natural in all of its broadest aspects—is a key factor in our country's welfare and security; and we need to establish at the highest level of the Federal Government a permanent mechanism to insure consistent, continuous, and long-term attention to all aspects of science.

Representative MILLS. Thank you, Mr. Carter.

Our next panelist is Prof. Forest G. Hill, School of Business Administration, University of Buffalo.

Professor Hill, you are recognized.

STATEMENT OF FOREST G. HILL, SCHOOL OF BUSINESS ADMINISTRATION, UNIVERSITY OF BUFFALO

Mr. HILL. The rapid advance of science and technology is one of the paramount factors in the prosperity and continued growth of the American economy. This factor is becoming more crucial with the mushrooming growth of the Nation's research and development expenditures, which now claim about 2 percent of the gross national product. These expenditures quicken the pace of scientific and technological progress, yielding new and improved products, new industries, new and cheaper methods and processes of production, and greater interindustry competition.

Federal research and development activities, which now consume over 5 percent of all Federal expenditures, are by no means new to American experience. In their present volume and complexity, however, these expenditures have become of extreme consequence for economic growth and stability. They pose many urgent issues relating to their distribution by fields, the efficiency of their application, and their overall coordination and evaluation. Hardly any other function of Government raises more serious issues of the proper criteria for policy formulation.

Relevant criteria for Federal research and development spending are highly interdependent. The appropriate volume depends in part

upon general economic, military, and technological needs, and in part upon the internal structure of research, together with questions of how and by whom these research programs are conducted. Other vital factors are the climate of research and the contribution of research and development to the economy and efficiency of Government operations. These criteria obviously have a great bearing on problems of economic stability and growth.

The volume of Federal research spending must ultimately be judged in terms of its adequacy for meeting existing and expected military and economic needs. When the current level of economic activity, rate of economic growth, or state of military preparedness is inadequate, these expenditures are too low. If physical output can be raised, if prices are fairly stable, and if the supply of scientific manpower is reasonably adequate, research spending can be materially increased. Technological as well as economic needs and conditions must be considered. Large innovations or breakthroughs may be within reach. Current research must provide a sufficiently large backlog of technological innovations and investment opportunities to assure continued economic growth.

The permissible level of research spending can be gaged in part by its relation to the gross national product, the volume of investment, the availability of scientific personnel, and the behavior of the price level.

In principle, all suggested research programs must be compared with each other and with all other possible investments or expenditures in terms of their productivity or expected returns. Research efforts must be apportioned among the physical, biological, and social sciences, and among the basic, applied, and developmental phases of research. Division of effort is required between problems which are large or small, urgent, or postponable, concerned with military or civilian needs, related to production or consumption, and considered capable of early or distant and certain or uncertain solution.

There is widespread belief that Federal research expenditures over-stress the physical and engineering sciences at the expense of the biological and social sciences, and applied and developmental research to the detriment of basic science. Such views frequently concern the stress placed on military needs and immediate firepower. Desires for quick practical results and immediate military application create pervasive biases in the pattern of research, preventing balanced judgment of long-run technological, economic, and even military possibilities.

Private industry can be relied upon to conduct or finance applied research and development for improvements of fairly certain commercial feasibility. As a rule, industry is not inclined to support fundamental research. The Government is forced to finance most research which is not immediately practical or profitable for industry. In addition to fundamental science, this growing category of research includes military technology, agricultural science, health, and the collection of general-purpose data of many kinds. This work is supported by the Government as social-overhead expenditure, or investment in the Nation's future defense, resource development, and material welfare. Such work is costly, must be pursued in a continuous and comprehensive way, and has huge, yet uncertain and delayed benefits. For these reasons the Government must support not only basic and military research, but

also that designed to improve consumer health and welfare and the efficiency of agriculture and small business.

Although the Federal Government finances at least half of all research and development, it contracts out half of this work. It relies on a variety of agencies for conducting research: Government laboratories, Federal research centers, industrial firms, universities, and other nonprofit organizations. Each type of research agency has unique advantages to be considered; and many questions arise as to the autonomy, administrative simplicity, and contractual relationships of Government-sponsored research.

Federal research and development expenditures have a tremendous effect upon economic stability. Yet, there is small leeway for manipulating them to reduce or combat instability. The volume of research is largely dictated by military and technological needs and by technical requirements for expediting projects and keeping research personnel intact. These expenditures are not a convenient contracyclical weapon. Any large variations may stimulate powerful cyclical tendencies. In terms of stability criteria as well as scientific, technological, and industrial progress, research spending should be kept reasonably stable.

Sustained economic growth is therefore the primary criterion for evaluating Federal research expenditures. They fundamentally shape the rate and character of economic growth. They must be large enough to provide effective stimulus, and they should be strategically directed toward major economic and technological bottlenecks. The backlog of new knowledge and techniques should always be great enough to make investment opportunities abundant and product innovation easy.

Federal research activities are obviously designed to accomplish interrelated purposes. These include national defense, general welfare, and economic growth and stability. The training of scientific manpower must be given due weight among these goals. A large portion of Federal research spending should be regarded as allocable to the task of promoting scientific education and training. All of these purposes must be kept in mind when the benefits and costs of Federal research programs are analyzed. Benefits are often broadly diffused, indirect, difficult to measure, and intangible in nature. Benefit-cost analysis must include the intangible and indirect as well as direct costs and benefits. Strategic and technical as well as economic factors must be considered in this analysis. Strategic factors have to do with military defense, the international situation, and the larger national "strategy" for scientific and industrial advance.

The effective formulation of policy for Federal research and development expenditures poses many complex issues. These expenditures must be allocated and evaluated in terms of vital national interests, which are imperfectly understood. They involve a plethora of agencies, programs, scientific advisory committees, budget estimates, administrative reviews, congressional committees, piecemeal appropriations, and separate expenditure decisions. The citizen, and perhaps the public official, has extreme difficulty in discerning any unity or order in this confusing situation. Indeed, he may fail to grasp the primary national needs and policy issues which are involved. There is urgent need for governmental machinery to assure proper

congressional and executive review, administrative coordination, and public understanding of these expenditures.

The Employment Act of 1946 may provide the model for what is needed to secure effective formulation of research and development policy. Paralleling the machinery set up under this act, a National Science Act should be passed creating a Council of Scientific Advisers in the Office of the President, a Joint Committee on Science Policy in the Congress, and a President's Advisory Committee on Science.

This Council could make an annual appraisal and report concerning the trends, problems, long-run needs, and desirable policy changes in Federal research activities. This report and the President's recommendations could then be considered by the joint committee, which could suggest general legislative changes for the attention of the appropriate committees. These two bodies could maintain close liaison with other Government agencies and with scientific, educational, and industrial groups, which could be broadly represented on the proposed Advisory Committee on Science. The greatest liaison should be maintained with the Bureau of the Budget, which exercises budgetary and administrative review over Federal research programs, and with the National Science Foundation, which makes detailed surveys of research progress and needs in the various scientific fields.

A tentative 5-year research and development budget could be prepared as an aid to framing and reviewing the annual budgets. The basic purpose of this or any other proposed machinery must be to secure the essential understanding, formulation, coordination, and review of national science policy.

Representative MILLS. Thank you, Professor Hill.

Our next panelist is Dr. John C. Honey, executive associate, Carnegie Corporation of New York.

Dr. Honey, you are recognized.

STATEMENT OF JOHN C. HONEY, EXECUTIVE ASSOCIATE, CARNEGIE CORPORATION OF NEW YORK

Mr. HONEY. Mr. Chairman and gentlemen, it is a privilege to be able to participate in these discussions on a subject of such obvious national importance.

The main burden of this statement is that if there is to be developed a sensible set of Federal expenditure policies for scientific research and development, a change is required in the organization of the executive branch with respect to the locus of responsibility for the development of national science policies.

The published paper upon which this statement is based was prepared prior to the appointment of Dr. Killian as adviser to the President on science and technology. In view of the unspecified nature of Dr. Killian's responsibilities and the resources with which he will be equipped for his new assignment, the questions raised and opinions expressed in the published paper appear to still have relevance.

The tremendous growth in Federal expenditures for research and development has been adequately documented. In reviewing the broad issues which demand policy consideration it is necessary to bear in mind that governmental research is primarily conducted for the pur-

pose of solving practical problems. If it is to be kept in close association with those problems of government—military, economic, health, welfare, et cetera—it must of necessity be carried on with responsibility diffused among many departments and agencies. This means that no single locus for Federal research such as a Department of Science is feasible. It means further that policy leadership must be broad in character and must be located at the highest levels in the Federal hierarchy. It must be so organized as to be responsive to national needs, and it must command the respect of the governmental scientific community as well as the scientific world at large.

As for the policy issues themselves, six can be generally identified for present purposes, as follows:

(1) What is the appropriate distribution of Federal research and development effort among and within the functional areas of governmental responsibility?

(2) To what extent should the Federal research effort seek to counteract the cultural tendency toward utilitarian research, and the normal governmental requirement for research of an applied and developmental character?

(3) Is the Federal and national research effort appropriately distributed among the fields of science, life, physical and social, and among the many subfields within each, as for example, among the medical, agricultural and biological sciences in the life sciences?

(4) Is the present pattern of allocation of Federal research funds among the various performers of research in the Nation, principally the universities, industry, and the Government's own laboratories a satisfactory one?

(5) What is the impact on the stability and future growth of the national economy of the Government's research and development programs?

(6) What is the role of the States in the support and conduct of research?

The foregoing are only a few of the broad problems confronting the Government in its scientific endeavors—perhaps the most important in terms of the allocation of scientific resources.

To deal with these issues there are now several organizations with **policy responsibilities**, including the quasi-governmental National Academy of Science-National Research Council, and the wholly governmental National Science Foundation, the Interdepartmental Committee for Scientific Research and Development, and the Science Advisory Committee of the Office of Defense Mobilization. For a variety of reasons related to scope of authority, diversity of responsibilities and inadequacy of leadership the efforts of these agencies have resulted in the emergence of only limited science policy guidelines for the Federal Government.

A most satisfactory solution would appear to lie in the creation of a Council of Science Advisers in the Executive Office of the President. Such a Council would better institutionalize the role of science in the highest councils of the Executive than does the appointment of a single adviser on an emergency basis. The Council should be equipped with a staff and with the authority to draw on the NSF, the Science Advisory Committee of ODM, the NAS-NRC, or other agencies of the Government. It should maintain liaison with the leaders of the

Federal Research and Development establishment through formal association with a strengthened Interdepartmental Committee for Scientific Research and Development.

I may add that one element in this proposed complexion would be the creation of a joint committee of the Congress concerned with scientific affairs, or of complementary committees in both Houses of the Congress. This, it would seem to me, is an essential additional element of the picture.

Thank you.

Representative MILLS. Thank you, Dr. Honey.

Our next panelist is Mr. Frank D. Newbury, economic and management consultant, Washington, D. C.

Mr. Newbury, you are recognized.

STATEMENT OF FRANK D. NEWBURY, ECONOMIC AND MANAGEMENT CONSULTANT, WASHINGTON, D. C.

Mr. NEWBURY. Chairman Mills, and Mr. Curtis, I appreciate this opportunity to appear before you. My paper is specific rather than general, with its application being almost entirely related to the Department of Defense.

The first item in my paper is the magnitude of research and development activity.

The National Science Foundation gives figures for Federal expenditures of around \$2 billion, but the total figure does not include over \$3 billion of expenditures by the Department of Defense for development which is funded from procurement appropriations rather than research and development appropriations.

Expenditures by private organizations now amount to over \$7 billion, but this figure undoubtedly includes several billion dollars of work done by private contractors which is funded by the Federal Government and included in Government figures.

The correct total of research and development expenditures can only be guessed; a total of 9 billion would be a conservative figure, as against a commonly stated figure of 19 billion. It is hoped that these hearings will develop a more accurate figure.

Of this \$9 billion, less than \$300 million is spent for basic research for purely scientific ends.

The second informational point I wish to raise is the effect of price increases on expenditures.

Price increases have sometimes been given as a reason for considerable increases in expenditures. During the past 2 years—with 1955 as a base—expenditures of the Department of Defense for research and development have increased 42 percent at constant prices and an additional 8 percent on account of price change.

Over the past 4 years, from 1953, the increase in prices accounted for 11.4 percent increase.

My third item includes recommendations for the better control of research and development expenditures within the Department of Defense.

The paper itself contains a description of the organization for the review and coordination of military research and development programs, divided into three periods:

- (1) The Office of Scientific Research and Development, starting in 1941;
- (2) The Research and Development Board, after the close of the war; and
- (3) The period of the Assistant Secretaries of Defense under Organization Plan No. 6, started in 1953.

This summary statement is limited to a statement of conclusions and recommendations.

1. I believe this 10 years' experience has demonstrated the futility of expecting effective and economical control of expenditures through virtually voluntary coordination by the three military departments.

2. Formal review and approval of research and development programs and projects by coordinating committees on which the military departments have the major representation has been the general practice, and has been ineffective. This committee procedure was developed by the former Research and Development Board and was adopted and continued under Organization Plan No. 6.

The basic defect of this coordinating committee organization, with strong military department representation, is that the military departments sit as judge and jury in the review of their own programs and projects. These projects previously had received the approval of the Army, Navy, or Air Force.

It is not surprising that under this coordinating committee procedure very few programs or projects of any importance are disapproved, and few programs are eliminated.

3. It is recommended that the Department of Defense adopt a review and approval organization and procedure in which the responsible Assistant Secretaries of Defense are exclusively responsible for the official review and approval of military department research and development programs and projects.

This type of organization and procedure has been developed and is now in use by the Office of the Secretary of Defense for some purposes.

The difficulty now is that both procedures are used by the Office of the Assistant Secretary of Defense for Research and Engineering for development programs and projects.

4. The practice initiated by the Secretary of Defense in connection with the 1959 military budget, of establishing a firm ceiling of appropriations and expenditures in advance of starting the detail work of preparing the budget is commended as an important step toward more effective limitation and control of military expenditures. I think it is important because—in any competition among basic research, applied research, and engineering development—basic-research projects will inevitably suffer.

Basic-research projects should be initiated either by a military department or by an Assistant Secretary of Defense for Research and Engineering.

Under present conditions, only the military departments initiate projects, and the Office of the Secretary does not initiate projects.

Representative MILLS. Thank you, Mr. Newbury.

Gentlemen, on some occasions we have asked the panel to begin discussion by commenting upon the papers filed in the compendium or statements made before the subcommittee by other members of the panel. We have found that to be very helpful.

If you gentlemen have some comments to make with respect to some statement of another member of the panel, we will recognize you before proceeding to ask questions ourselves.

Mr. Carter, do you have any comment with respect to anything suggested by any other member of the panel, or any additional point you wish to raise?

Mr. CARTER. I don't believe I have any question to ask at this time. I believe it is a general consensus that we need better overall management. I believe that will probably come out in some of the discussion.

One thing that I hope will be explored a little is what is connoted by the words "basic research." We can use the whole afternoon on that. I would suggest that we not get into that too soon, because there are so many different definitions of just what is meant by basic research. The words are used a whole lot, but when you get down to it, it depends upon whether you are talking to a scientist or to an industrial production man as to what it means. I think some clarification of that might be helpful.

Mr. Burgess, I think you used it first. I wonder if you have any clearly defining lines between what you consider as basic research and what is part of the everyday defense program.

Mr. BURGESS. Well, I think the definition of necessity is somewhat arbitrary. My definition of basic research is an activity which is directed toward advancing fundamental knowledge without having in mind the development of any particular commercial products or commercial processes. Under that definition, I suggest that the recent advancement of the Russian scientists in launching the satellite is more in the nature of applied research than basic research.

Representative CURTIS. I was just going to ask that very question, taking Sputnik, whether it was not more basic research than applied. I wonder if the panel could develop that in getting this definition a little more clearly before the committee.

Mr. BURGESS. I am sure that some of the others are better qualified to answer that question. My own impression is that they drew upon the basic research performed in other countries many years ago, and applied it to this problem of launching a satellite.

Representative CURTIS. The thing I was trying to get across was this: Isn't Sputnik itself, putting it up there, to further develop basic research rather than to develop applied research according to your definition?

Mr. CARTER. I would like to take a crack at that. I think the actual launching was an engineering feat and no mean one at that. There was basic research that preceded it by their scientists and ours in predicting what was going to happen and determining what they wanted to do. Then there was the engineering accomplishment of getting it up there. Now there is much basic research being performed with it after it is there. That is the reason, I think, a good bit of the difficulty comes into basic research. I have so often heard it used as a sort of aimless, purposeless thing, that I cannot subscribe to it at all. I feel that in the process of learning to solve some of our applied problems, we may have to go back and make basic studies.

How is one to separate basic and applied research completely? I am at a loss to know.

Representative CURTIS. To develop it for further discussion, I just read, I believe yesterday, in the paper, from the testimony going on

before the Senate committee, that the military decided it was more important to go along with their ballistics program, their missiles program, which would tend to be more applied, and lay off of the satellite aspect, which seemed to be more basic. I think that context should be developed here, if it could be, by the panelists.

Mr. HONEY. On the earlier comment with respect to the extent to which the Soviet Union has drawn on basic research from other sources, I would say without special information at hand, that the truth of the matter is in all likelihood we really don't know. There is really one fundamental danger in this situation. If it is true, as it may well be, that the Soviet Union has developed the capacity for generating its own fundamental research, and this is a very good possibility, I would judge, then the security implications deriving from future Soviet accomplishment presumably without limit.

I think we have to move from the most dangerous assumption, in terms of our military position.

With respect to the emphasis on the missiles program, it would seem to me this is a military decision. One can look at the total scientific effort, both with respect to the exigencies of the immediate military and political requirements that are emerging as a result of Sputnik, as well as the longer range situation. This gears back into my comment about the Soviet Union. I suspect we are, in the long run, in a very fundamental competitive situation with the Soviet Union, in the whole business of training scientists and engineers, and that this will go on for a generation or perhaps more. These are probably the terms within which we need to look at the adequacy of our Federal organization and resources which we are now committing and later may commit to scientific work.

Mr. NEWBURY. I would like to comment on this definition of what is research and what is development.

Representative MILLS. Yes, Dr. Newbury.

Mr. NEWBURY. From the administrative or management point of view, I have found it very useful to define research or development by its purpose. The purpose of a research project is to obtain new information. It may be basic or it may be applied, and the distinction may be very difficult to make. But considering research as a single group, a research project has, as its purpose, a development of new information. A development project, on the other hand, has, for its purpose, the development of a tangible piece of equipment. It is more specific. According to my definitions, the satellite is a development project with a very broad research base. But the project itself of putting a satellite into space is a development project. Any missile is also a development project, as long as it is a weapon planned for service use.

If a project has a general purpose to improve fuels for rockets, let us say, it would be a research project, probably applied research.

An example of basic research, would be in the high energy field of the cyclotron results, and that sort of thing, which has a general application to a wide field of application in physical sciences.

Mr. CARTER. I would like to add one other comment addressed to Mr. Curtis' question.

We at Stanford Research Institute had nothing to do with putting Sputnik up there, as far as I know. But once it got up there, we caught it on about the second round after we learned about it, and

we have been doing what might be called basic research ever since, in studying the laws of propagation, and how propagation is affected by the different orbits of rotation; in improving our understanding of the earth's gravitational field and the density of the atmosphere. Much of this knowledge is needed to perfect a real missile system.

So, again, it is, to my mind, as follows:

In the approach you make, you can make a very basic approach or you can have an applied approach. I think much of our applied research has to be approached basically.

I don't mean to bring this up to cause confusion, because there is confusion already on what is or is not basic. But let us do not ascribe to the term "basic" something that is put out in a room with a man or two working by themselves without any real aim or purpose. Too often that definition is assumed.

Representative MILLS. Professor Hill, did you want to make a comment?

Mr. HILL. If I may add my view on this discussion of basic and applied research, I think I can agree with what has been said and go ahead to say this: These terms are essentially relative. If we take an individual scientific task, to one scientist it will be a basic study. To another scientist the same set of scientific operations will be applied work. A certain scientific technique or experiment might be basic with reference to one scientific problem, and it might be applied as it relates to another problem. Maybe we can admit this relativity and go on from there.

We want to advance techniques, and also to extend the general frontier of science. The advancing techniques are concerned with specific jobs, such as missiles or industrial technology. But at the same time, we wish to develop interrelationships that will advance the larger field of knowledge, maybe without using the term "pure science." I think we need to do both of these things at once. In putting up Sputnik, for instance, there are several strands of the most basic type of research and there are several strands of the most applied. We have to sort these things out, I think, rather than ask which one it is, because it is a lot of both. We must recognize this duality and interdependence of research, promote both technical advances and our larger knowledge, and carry on with further integration from that point.

Representative MILLS. Let me see if I understand the purport of your papers in the compendium and your statements to the subcommittee today.

You are raising, as I understand, in all of your papers, two kinds of problems:

One is the organizational or institutional problem.

Then, two, the economic problem of establishing criteria for maximizing benefits from the use of scarce research resources.

Is that the way you would have us characterize your statements, with these two problems you have raised?

The statements that you have made in the compendium with respect, first, to the organizational or institutional problem, have been very interesting, and, I am sure, will be very helpful. But I am more concerned, very frankly, in the course of this hearing before the subcommittee, with the second item. I think from what you say it is

the more difficult problem, trying to establish criteria for maximizing benefits from the use of scarce research resources.

I am in hopes that this afternoon the members of the panel might be able to give us additional information with respect to this second problem, because your papers in the compendium, of course, were prepared before many of the most recent events occurred.

Would one member of the panel lead off with respect to any additions that would be helpful to us in trying to determine the best solution of the second problem?

Mr. BURGESS. I might make 1 or 2 comments, Mr. Mills.

Representative MILLS. Yes, Mr. Burgess.

Mr. BURGESS. It was stated in my paper, and it is confirmed by recent events, that basic research in this country has been inadequate in recent years. I think we need to keep in mind that basic research must precede applied research, and that applied research draws on a pool of basic research results accumulated over a period of 10 or 20 years beforehand. It appears that we have been drawing on that pool faster than we have been replenishing it. That is a factor in our lag compared with Russia in technological developments.

We do need to increase the proportion of research work done on basic, fundamental problems. However, as I stated, I feel that since our resources are employed to the full extent at present, we can accomplish this only by reducing to some degree the amount of applied research being done.

Representative MILLS. At that point, if I may interrupt, that is of particular concern to us with respect to the use of research resources by the Government. Are you suggesting that because we are at the moment, both in the private sector and in Government, utilizing fully our available research resource and because we have this long lead time to go through, in order to accomplish greater or more highly desirable programs, at the moment we have to make some reallocation of the research resource?

Now you get to the point that I am raising. What criteria can you give us that will be of benefit to us in determining the reallocation of research resources insofar as Government utilizes them?

Mr. BURGESS. Well, here is one: The National Science Foundation, the one agency of Government whose primary function it is to stimulate and encourage basic research, had its original budget request of something like \$95 million, I believe, cut to \$65 million by the Budget Bureau, and finally to \$40 million by the Congress for the current fiscal year. I imagine that they will make a substantially larger budget request for this coming year, and I presume that Congress will be in the mood to grant more of their request than they were last time.

Representative MILLS. Just a moment. You pass over the very thing that I am trying to get some help on out of the panel. First of all, how do we know that the Congress made a mistake in merely making \$40 million available? How do we know that the Congress will improve the situation by making more money available, until we know what criteria to use? Are we going to do it just blindly?

Mr. BURGESS. There are no specific criteria in my opinion for determining the precise allocation of our research resources, nor of our research expenditures. It appears that, without question, our basic

research has been inadequate, that doubling it or tripling it would not be too much.

Representative MILLS. I still have not gotten my point. If we know that doubling it will not be wasteful, then we must have some criteria in mind by which we reach the conclusion that doubling it is sufficient instead of quadrupling it.

Mr. BURGESS. I think in this area, Mr. Mills, we can employ as a rough guide what our competitor is doing. That is one of the guides that industry uses in determining the amount of its research and how much to spend. We must be concerned with what our competitor, Russia, is doing in this area. That is one guide.

We need to spend more, a lot more, and presumably any amount within reason can be justified under the present circumstances.

Representative MILLS. Let us assume that we cannot just go on the basis of what our competitor is doing because we may not have the same qualified or skilled resource of a competitor, let us say. I am merely assuming. Then do we merely use that as a criterion, what our competitor is doing, or do we look more to our own research resources and try to develop some other criteria to determine how we will use them, to what extent, and so on?

Mr. BURGESS. We can probably use our resources more effectively than we are. We can increase the productivity of our research dollar. But money is not the answer. We cannot solve our problem overnight by spending more dollars.

Representative MILLS. I was trying to get that out of you.

Mr. BURGESS. The problem is much more basic than that. It goes back to the training of scientists, it goes back to the incentives that we provide for scientists, it goes back to the status of the scientist and the respect or lack of respect he is shown in this Nation today.

We need to elevate the status of the scientist, we must compensate him better. We have to make the occupation more attractive, in order to increase the number of persons seeking that training. That cannot be accomplished by dollars overnight.

Representative MILLS. We are all agreed on that point, that you cannot accomplish this merely by increasing the dollars. But we agree upon the necessity for the use of more dollars, let us say.

What criteria do we use in determining the best use of those dollars?

Mr. NEWBURY. Mr. Mills, I think I can add something to that along the lines you have just mentioned. I question whether the Russian advance in the satellite field has been a matter of technological or basic research advance. It has been more, I think, a matter of management and the ability to make the necessary decisions at the right time. I think the better use of our facilities is a matter of management and organization in the research field, and to get more emphasis on the research. I made a very simple suggestion in my paper that the Department of Defense and other departments set aside a fund that is exclusively for basic research, and that it be administered by the highest available official in that department.

In the development field it is, I think, entirely a question of selection of projects within each departments. Again I have made a suggestion for the better review and approval of research projects and development projects, in the Department of Defense. I think it is in the direction of management and the supervision of research that you will get more result for the available dollars.

Representative MILLS. We all agreed in the beginning that we could make improvements in our organization and our management. I think the panel would be fully in accord with your last statement.

But I come back to the same point that worries me most. We have to spend dollars, but how do we know when we spend those dollars that we are making the best use of them in this field? Are there any criteria which you gentlemen can suggest to the Congress as it launches a program of greater outlays for research, that will guide us so that we will know that we are maximizing the use of our research resource?

I firmly believe that in this area over the next few years we must make the greatest and best possible use of those resources.

Dr. Honey?

Mr. HONEY. Mr. Chairman, I am not sure how helpful this comment will be on the question of criteria, but let me give an illustration as to why it seems to me the problem of criteria is one that we are going to live with for a long time, and that decisions are going to have to be made, especially in current years, very heavily on the basis of judgment, but hopefully, ultimately, more and more on the basis of factual types of information.

In the allocation of our Federal resources for research, one of the questions which I think all of us have raised here is as to the amount of funds going to basic research at the present time, and the question of whether the amount of money going to basic research is adequate.

Behind this lies the question of whether there are in the country creative individuals who are competent to perform basic research who do not now have the resources and the opportunities available to them to do such research. It is argued in some quarters that the universities are replete with scientists who desire to do basic research, but who cannot do it or do not do it because they are lured away by the applied and developmental Federal dollar to work on applied programs rather than on basic research programs. This is a view which is, in fact, not supported with data. I am not disputing the view. The fact is we don't know the answer to the question as to whether there are many research scientists in universities who would prefer to be doing basic research. Until careful studies have been made of the interests of scientists working in universities, studies which reveal whether they are performing the kinds of research which they most desire to do, basic versus applied, and so forth, we can't make use of the criterion of available manpower for basic research in universities.

The gist of the point I am trying to get at is that underlying the development of criteria is the accumulation of a lot of factual information which we at the present time do not have in hand. This is going to take a long time to develop. It is a job that we will have to be constantly working at.

Therefore, it seems to me that we are almost at the beginning of identifying the kinds of information which we need in order to make more sensible allocations of our resources. We have to push vigorously if we are really going to do the job more effectively in the future than it has been possible to do to date.

Representative MILLS. Let me see if I understand you correctly.

Are you saying that it will take such time in the future to develop criteria that I am seeking now that it will be necessary for the Con-

gress, until they define that criteria, to just go at this thing blindly in the appropriation of money? I am not trying to embarrass you. I merely want to understand. I have suspected that from the beginning.

Mr. HONEY. I would say that the Government and the public and the Congress are in a better position than going at this business blindly. There are some kinds of factual information available. Again on this basic research business, for example, we know that the British, as a matter of their culture, their university training, produce a heavy volume of basic research as compared with the applied research and development. There has recently been a recognition that we need to exploit the cultural scientific capacities of our allies through closer liaison.

We have this kind of criterion which can be made use of in considering what our allocations for basic research in this country should be. So we are not entirely flying blind by any means. But these questions of criteria and allocation of resources, as you well know, are not simple ones. What I was trying to say is that it is going to be a long time before we have really sophisticated bases for making judgments.

Representative MILLS. Let me ask you this, with respect to the problems you raise in your statement, which, incidentally, stimulated me to ask these questions: With respect to any of these six policy issues which you raise, do we have at the moment any real information that enables us to supply any real answer to any of them, Dr. Honey?

Mr. HONEY. I think, Mr. Chairman, you are probably acquainted with the publications of the National Science Foundation which provide what we might describe as simple factual information on certain distributions of the Federal research and development effort, and certain publications of the Bureau of the Budget and Department of Defense.

For example, in the budget of the United States is a special analysis which provides a distribution in very gross terms of the functional expenditures for research. On the first item we have a little information in hand.

Representative MILLS. Do you have that through the National Science Foundation?

Mr. HONEY. That information is available in the National Science Foundation. I am acquainted with the publications. I would be glad to submit a list of the relevant publications later, if you wish.

Representative MILLS. If you would, that will be helpful.

(The list of National Science Foundation publications referred to follows:)

Basic Research (a national resource) October 1957

Federal Funds for Science (Federal research and development budget of fiscal years 1956-58) September 1957

Federal Financial Support of Physical Facilities and Major Equipment for the Conduct of Scientific Research (report to Bureau of the Budget) June 1957

Advisory and Coordinating Mechanisms for Federal Research and Development, 1956-57

Organization of the Federal Government for Scientific Activities, 1956

Scientific Manpower in the Federal Government, 1954

Graduate Student Enrollment and Support in American Universities and Colleges, 1954

Trends (in the employment and training of scientists and engineers) May 4, 1956
Scientific Research Expenditures by the Larger Private Foundations, December 1955

Federal Support for Science Students in Higher Education, 1954

Science and Engineering in American Industry (final report on a 1953-54 survey)

Research and Development by Nonprofit Research Institutes and Commercial Laboratories, 1953

Research by Cooperative Organizations (a survey of scientific research by trade associations, professional and technical societies, and other cooperative groups, 1953)

Scientific Personnel Resources (a summary of data on supply, utilization, and training of scientists and engineers) 1955

Recommended Future Role of the Federal Government With Respect to Research in Synthetic Rubber (Special Commission for Rubber Research, National Science Foundation) December 1955

Representative MILLS. I have read some of these, and I have not been satisfied through the reading of the ones that I had, that I had obtained anything like an answer to that first question. Maybe it is because I know so little in this area that I would reach that conclusion.

Mr. HONEY. These are very rudimentary, just the bare beginning of critical materials which might ultimately be developed.

Representative MILLS. I want to congratulate you. I am not at all suggesting that there are quick answers to these questions. I am merely trying to find out. I do congratulate all of you for the pertinence of the questions that you have raised, questions, I think, all of us must admit in time we must find better solution for than we have at the moment. These that you have raised here in your paper, Mr. Honey, I think are quite good.

Mr. CARTER. Mr. Mills, I want to take a little different point of view. In the first place, I am not an economist; I am an engineer. My experience has been primarily in the industrial research management and now the management of a research institute. I do think we have some specifics to offer. I am not one who feels that we have at the moment a shortage of engineers and scientists as much as we have a question of inadequately using what we have.

There are means for decisionmaking in allocating research effort. There is the Operations Research Office of Department of the Army and similar groups in the other military services. We are doing quite a few projects on operations research and analysis. They are yielding big returns.

I know some industries now are beginning to use research on decisionmaking and getting much more effective programs by so doing. I do not want to go through all of the details as to just how this is set up, but I think that we need, very seriously, some research on our research effort to be sure that we make the right decisions on the direction in which we are going. These decisions would result in a number of things.

By making them objectively, it would phase out some programs completely. Some programs have been phased out just recently on the basis of research studies that have proved that their lead time is so long they will be obsolete before they can go into production because of some new programs coming along. I think we must go much more intensively into the use of evaluation and analysis to determine what programs we should phase out and which programs we should crash to get the most effective return for our money.

That is the reason why I say when we make decisions on the budget, based upon expediency rather than research effectiveness, we are making mistakes. My first point is, to do a better job of decision-making on allocation of research effort. I am sure it can be done. The second is that we see in industry quite often great labor-saving devices through automation. A new automatic machine that takes out so many hours of unskilled or semiskilled labor will be built because tangible figures to say it pays off are available. Often we have a \$10,000 or \$15,000 scientist working with antiquated equipment because the funds are not available to buy the equipment that will save his time and make his use most effective. I could go on to many others.

There are often trained engineers on drafting boards doing work that could be done by upgraded apprentices, while the engineers could be upgraded to more effective application of their training.

So, it does come back to management. It comes back to management and evaluation by management. You cannot quite separate the two. I would like to see more research done upon our recent research program and find enough funds left to do some of these broader range researches, such as the improvement of our human understanding. I am sure it could all be covered more effectively than the way we are doing it now.

Representative MILLS. If I could ask you one more question, Mr. Carter, I believe I could get some help from you now about this other question that I have raised. You said that you had reached the conclusion that we are presently misusing these resources.

Mr. CARTER. Not using them adequately. Let's put it that way.

Representative MILLS. If we are not using them adequately, we are misusing them.

Mr. CARTER. All right—misusing them.

Representative MILLS. So, if you reach that conclusion about our present use of these skilled resources, then you must have reached some conclusion as to the standards by which you judge the use of these resources. It would be very helpful if we could have your evaluation of how you reached the conclusion that we are not adequately using these skilled resources so that, as we make additional funds available, we will not continue to pour funds into areas where the resources are not now being adequately used.

Mr. CARTER. One of the biggest problems is the psychological problem. We have recently made some studies of the Soviet informational center, where they collect and abstract information from all countries, not just from our own, and not just from their own. They have a data-processing system which makes this material available. They apparently have been resourceful in scientific information retrieval.

Even when I was in business, I thought it was pretty smart to look at the other fellow's product and improve upon it, if I could. Too frequently, though, and this is the psychological hurdle we must get over, there is the "not invented here" factor. I have often tried to get an engineer to adopt something that someone else had done, and improve upon it, and he would start off to find a whole new approach to the invention, because he didn't feel that he was honestly making a contribution unless he invented the whole thing himself. We Americans are too much that way.

The other day a friend of mine was talking with a fellow about sputnik. It may have been facetious, but the fellow said, "You know, what bothers me about that is those people got that thing up in the air and they don't even know how to speak English."

Well, I think that has been our attitude of complacent conceit. We have not been willing to go out and get all of the information that is available to process in a way that we can use it most effectively.

To carry that further, we have three groups of services, plus many other laboratories, who, in some instances, are using security regulations to maintain departmental security rather than national security, so we don't have the effective idea stimulation that could come by competing, but competing openly, so that all of the information is known across the board instead of being held tightly because of inter-departmental rivalry.

You might see a little emotion in this, but I feel that that is where a lot of our losses are. I feel that the right amount of attention given to a real analysis of the problem can cut out some of these bottlenecks and duplications and focus our effort more effectively toward the goals that we must reach.

Representative MILLS. Let me say this, Mr. Burgess, before you proceed: I am very serious about the question raised, and I hope none of you think for one moment that I have raised any question at all for a purpose other than to try to obtain information. I am very anxious to have it, if it is available from any possible source, to the extent that it is available.

Would it be asking too much of you gentlemen if you would think some upon this question, and if you would submit, at least some of you, some further paper that could be included at this point in the record with respect to this matter of criteria?

(The information referred to follows:)

COMMENTS ON POSSIBLE CRITERIA FOR FEDERAL RESEARCH SPENDING

Supplemental information furnished by Ralph E. Burgess in response to request of Representative Mills

As to delimitation of the area for Federal activity in research, this should include all projects necessary for national security and programs in the nonprofit sectors of health, education, and welfare. Applied research in the natural sciences should be held to an absolute minimum and should be undertaken only when efforts to interest private research laboratories in supporting such projects have failed. In determining specific limits to be applied and in considering individual proposals, Congress must rely upon competent military and scientific advice.

The absolute minimum for Federal research spending should be that amount which will assure military security through superiority. In the present situation, this would require, for an extended period, the full employment of all qualified research scientists available, working at maximum efficiency. Clearly, if our Nation is not safe, the effort should be increased posthaste, regardless of cost. Such scientists are few in number and well known for their work. Locating and employing them should, therefore, not be a difficult job, although it might prove to be costly and time consuming to attract them from present positions in industry. In addition, we shall have to continue other types of Federal research, at least at the current, probably inadequate, levels.

There is at present no definite desirable ceiling for Federal research activity. And, since our tools for relating research investment to gains from research are so crude, the conception of rules of thumb (such as a fixed percentage of gross national product) would seem to be extremely tenuous. All the considerations

in the area of research, quite to the contrary, dictate a fluid attitude toward research spending and a willingness to expand activities when areas of critical need, or exceptionally promising results, are revealed. It scarcely need be said that such a policy would involve the expansion of Federal research effort all along the broad front of human accomplishment and would inevitably involve an economic choice between research and some other activity. A virtual open-end Federal research budget and a project-by-project appraisal of Federal research progress would seem to be the only logical course to pursue at this time. Safeguards on the public purse will exist in the form of limits to spending imposed by shortages of available research resources, even following substantial curtailment of applied research activities in the area of the natural sciences.

Two organizational steps to improve Federal research activity deserve and, as this is written, are apparently receiving special consideration. The first is the creation of a Federal research advisory organization to coordinate activities and to select areas for investigation. This function could probably best be performed by a committee of mixed membership including representatives from Government, education, and industry. Members would also serve as liaison between Government and the groups they represent. A second vital consideration is the establishment of machinery to keep open the channels through which the knowledge of research activities may flow to those who would benefit.

Legislation might be considered to permit special amortization privileges for new industrial basic research facilities when these are brought into being for the primary purpose of national defense and at the request of the Federal Government.

The above suggestions obviously fall tragically short of having the kind of precision and certainly for which we are all searching. These characteristics may be unattainable, but in any event they cannot be secured except with the benefit of a great deal more experience than we have had to date.

SUPPLEMENTARY STATEMENT BY E. FINLEY CARTER, DIRECTOR, STANFORD RESEARCH INSTITUTE

Mr. Chairman, I should like to suggest a criterion developed by Stanford Research Institute to help research management in Department of Army. This criterion is that of measuring the calendar time, or availability dimension, not only of the systems which are the object of the research and development, but also of the environment in which they will operate. This point is covered to some extent in my paper, but I believe it bears repetition in response to Representative Mills' question.

In applying this criterion, those charged with managing research resources should insist that for proposed applied research and developmental projects there be submitted realistic estimates of the lead times required for the system to become operational, together with a similarly projected operating environment; this to insure that today's research will meet tomorrow's need.

Mr. BURGESS. Mr. Mills, it occurs to me that at the bottom of our difficulty in establishing criteria for judging research potential, or the amount that it is desirable to spend on research, is an outstanding characteristic of all research effort which is referred to by the \$50 word, serendipity; namely, the accidental and unexpected nature of important discoveries.

This is an outstanding characteristic of research recognized by nearly everyone. We cannot plan, we cannot program, we cannot predict in advance with any degree of reliability what our results will be or even whether we will get any worthwhile results.

The result may be in an entirely opposite direction from the road along which we have been traveling. The result may be worthless (particularly, in basic research) or the result may provide a basis for applied research for years and years to come.

So it is difficult, if not impossible, to set down in advance criteria by which we can judge the appropriate amount to spend on any par-

ticular research project. Although there are guides, none of them are reliable.

Representative MILLS. Mr. Curtis, I will recognize you at this point.

Representative CURTIS. On this same topic, I was wondering if we do not have two sets of criteria here. Really, maybe, we skimmed over the first point that the panel has brought out so clearly in the papers, that we are not organized at the executive level sufficiently well in the handling of our research skills.

Criteria for the Congress would be, I can see, considerably different than the criteria that are developed in the executive branch. It seems to me that reading these papers—and I want to say here I have never been so stimulated in reading a set of papers on any subject, mainly because I did not know anything at all about this—

Representative MILLS. That is probably the reason I felt the same way.

Representative CURTIS. I certainly thought these papers were outstanding. At any rate, the papers bring out in my mind many criteria which scientists and people familiar with science could apply. But what is lacking is a proper organization in the executive branch to do this.

Maybe the criteria the Congress needs is a different set than that which would be developed by those at the executive branch that are doing the work. We have to know enough about it, in my judgment, that is the Congress, to sort of look over the shoulder of the Executive.

I think it is our function to do that. I throw that added thought out to see if the panel thinks I might be right in that area?

Mr. Honey?

Mr. HONEY. I think this is a very profound observation about the process of making judgments with respect to the national research and development effort. It is possible that you would be interested in an article which appeared in *Science*, back in 1953 which talked about the planning process in connection with research and pointed out that at the different levels in the process—one can take continuums ranging from the decisions made by the bench-level supervisor of research up to the level of Congressmen reviewing research programs—and at each level in the process a different set of judgments has to be brought to bear. They grow in the generality of their range from highly specific technical kinds of questions to very broad questions of the national interest.

I think in tackling this question of criteria, the frame of reference that you suggest is absolutely essential to keep in mind.

Representative CURTIS. Thank you.

Dr. Hill?

Mr. HILL. On the problem of criteria, although the question put to us by the chairman is the logical question of criteria, I have the feeling, too, that some of our criteria must be organizational.

Perhaps if we start with organizational criteria first, and then bring out the distinction between the executive-administrative function of deciding on projects, coordinating them, and reviewing them in the executive sense, as opposed to the kind of review that Congress performs, there would evolve some valid distinctions of criteria.

Any full set of criteria would be partly organizational and partly substantive. I think. As organization improves for administering the kind of research that Dr. Honey and others here have talked about, the substantive criteria would also improve.

Although these criteria are very indefinite at the present time, we nevertheless have to use them, perhaps crudely at present. Through further study and general use and better understanding of them, these criteria, substantive as well as organizational, can be improved.

Representative MILLS. Perhaps I should have started with the first consideration before going to the second. I had intended, when Mr. Curtis completed his questioning of the panel, to go back to see what criteria you could suggest that we could utilize in determining whether or not we had the proper institutional and organizational setup for the use of these research resources by Government.

Mr. CARTER. I think the most important resource is in management itself. That is perhaps the reason I think it is right that we should explore the organizational management problems and then carry through into the other.

Representative CURTIS. If I may ask a couple of other questions first, we can come back to this so that the chairman can develop it. However, perhaps it would be better to get done with this first.

Representative MILLS. Go ahead, Mr. Curtis.

Representative CURTIS. Let me take this one thing up first. It is somewhat collateral, but it is basic to the whole problem. As I understand it, there are about 3 organizations, or at least 3 types of organizations, which could perform this function of basic research.

One is the private sector, the other is Government, and the third and I presume we have to have a third, the institution, the nonprofit institution, our universities, foundations and so on.

I was trying to explore where basic research would have to be done. The papers develop that to some degree. Some thought that maybe it is going to be done and would have to be done at the Federal level. I am not sure, but maybe it will not be. Some decisions have been made along that line, I suppose.

In some of the papers on previous panels this thought was developed to some degree: It was pointed out that the private sector could never really afford to do what we regard as basic research, but I was not willing to accept that completely.

However, I do want to pose that question. Certainly, a great deal of basic research will always be performed in our institutions, it seems to me. It seems to me that is as big an area as the Federal Government and, of course, it always needs to be coordinated.

Now, getting back to the private sector, here was the question I was concerned with: Our patents, our patent laws were originally set up with the foundation of the country. Many people give to that little device a great deal of credit for the development of this country. It is no more than a device whereby a person can get some economic benefit from his invention.

There have been suggestions that in our modern society the patent device no longer provides that protective feature; to a person, or a company—for money invested in research and development. Consider the chemical companies—chemical companies so dependent on new products, the question is posed can they count on getting back

their investment in research and in basic research because of the protective devices that exist around the marketing of these inventions.

Maybe in order to encourage research by corporations, something will have to be done. This has the further implication, and this same paper brought it out, that the only companies who would do it were the big ones, and those who tend to have a monopolistic position. They, of course, might afford to do basic research.

I pose that question at this time. First, are we getting any basic research from the private sector now?

Mr. HILL. Well, of course, we could ask how much basic research does industry conduct, and how much does it finance? It may not conduct very much. It may, or certainly it could, finance more. The problem may not be lack of resources on the part of private firms to support basic research, but a matter of their attitude—the fact that they spend their dollars in some other way and feel that this is more profitable.

In the pattern of industry thinking that prevails, there may even be the question of whether or not the stockholders' money should be spent on something that is not immediately connected with earning profits or paying dividends.

Representative CURTIS. What is the situation now?

Mr. BURGESS. I have some figures that bear on that. The National Science Foundation in its recent report entitled, "Basic Research," included again some figures it had reported earlier with respect to research expenditures in 1953-54, which at this time are the latest reliable figures on private research performed.

They show in this report that of the total basic research expenditure in the economy in 1953-54, amounting to \$435 million, 41 percent of the funds were provided by industry-oriented organizations, and 39 percent of the work was performed by such organizations.

The remainder, of course, was provided or performed by Federal agencies, colleges, and universities, and other institutions.

(The complete table taken from that report is as follows:)

Basic research in the physical and life sciences, by sources of funds and performers, 1953-54

Major sector	As sources of basic research funds		As basic research performers	
	Millions of dollars	Percent of total	Millions of dollars	Percent of total
Federal Government agencies.....	\$158	36	\$47	11
Industry-oriented organizations.....	179	41	1 168	1 39
Colleges and universities.....	60	14	1 205	1 47
Other institutions.....	38	9	1 14	1 3
Total.....	435	100	435	100

¹ Includes Federal funds for the conduct of basic research at research centers administered by organizations in this sector under contract with Federal agencies.

NOTE.—Detail may not add to totals because of rounding.
Source: National Science Foundation.

Representative CURTIS. That is the figure I was trying to get. What is your opinion, sir, of whether more could be done in this area through the private sector? A part of our problem of the overall

investigation that this committee is doing, is what might be done better or equally as well through the private sector.

Mr. BURGESS. Again, we need to distinguish between performing the research work and financing it.

Representative CURTIS. It is really financing that I am talking about now, although the performance and financing are very close. I was amazed to see that they are that close.

Mr. BURGESS. The work, of course, must be performed wherever facilities exist. If the facilities of private industry are required, that is, if the personnel, plant, and equipment are required, to perform that work, then it can be done under contract and the funds can be provided by the Federal Government.

With respect to who should finance it, I think it can be said that a considerable amount of basic research is now financed by industry, but that such support must, of necessity, be limited for, after all, industry is responsible for producing a profit for its owners. Since the profit potential of research is so vague, remote, and uncertain, management frequently considers it beyond its realm and beyond its proper function to engage in large amounts of basic research.

Representative CURTIS. And that uncertainty of profit is what those that are arguing that out patent laws are too obsolete to do what they once did do, enters into the picture.

I do not know if their argument is sound. I have heard the argument. Have you any comment on that particular point of view, that maybe we are not providing sufficient protection to the development of new ideas so that they can get an economic return?

Mr. BURGESS. I understand that industry considers that there are some deficiencies in the patent laws in this respect, but I am not qualified to discuss them, Mr. Curtis.

Mr. CARTER. By and large, the patents cover products and, therefore, cover applied research by our definition. Basic research is more likely to appear in publications of principles rather than patents on specific devices.

I doubt that the patent laws would affect the amount of basic research, per se.

Representative CURTIS. It would be difficult, though, to get the private sector to do much more—I am just posing this—would it, inasmuch as they consider it as bread cast upon the waters, as it were?

Mr. CARTER. There are many advantages that come from basic research, especially in these days when college students are hard to come by. Most of the larger corporations have fellowships in universities. The goodwill brought from that, even though allowing that as a contribution, they develop a contact and relationship with the university and students, and it often helps them in recruiting later on.

There is a public goodwill that comes from the publication in journals. If you will read the professional journals, you will find many pieces of work published by scientists in private industry which others can profit from because it is new truth.

I think you might find that a large industry would not be adverse to spending anywhere from a half to 1 percent of its sales on what we are talking about as basic research.

Representative CURTIS. Do you think that is a sufficient motivation that we could count on that in our social structure as it is, to increase the amount of basic research, or at least continue it?

Mr. CARTER. I think that public opinion is a very important factor, and I think up to a limit, although, as I say, I doubt whether you will find many of them willing to go more than 1 percent of sales, because then they are beginning to run into the area that they might spend for other means of public relations, and so forth. But that is just one factor.

The reason why so much emphasis is put on Federal support for basic research is because, by and large, the new information is dedicated to the public use. If there is any one agency who has all the public in mind, it is the Federal agency as against a private competitive organization.

So there is no doubt that the Federal Government should support basic research and in so doing should act as a leavening factor rather than an exclusive agent.

I think as new information is made known, it stimulates progress and, therefore, to that extent, Federal expenditures can generate still further effort in the private sector.

Mr. HILL. Perhaps more in the past than today, the ripe or promising ideas for scientific research and improvement were in the field of industry, and they often were mostly applied. That is, they involved inventions or ideas which could be put into new commodities.

But today, the most dynamic and promising scientific fields, where large breakthroughs are expected or being realized, are more often in medicine or physics, in agricultural or biological science. These are fields that are further removed from private industry than would have been the case 50 or 100 years ago. So in a sense, a very large part of the whole field of basic science has, accidentally or inadvertently, moved out of the scope of private enterprise.

This raises the problem of governmental support. Today, some of the main incentives or urges for basic science are related to military defense, agriculture, and health. Then there is the question of where are the big gaps, the uncultivated areas in science, that may be very important to tomorrow's military weapons or health or material welfare. Those gaps may be in areas that we will have to cultivate for 2 or 3 decades before valuable things come forth to help industry.

Estimates have been made as to how long it takes for improvements in military weapons, in the technology involved in military weapons, to influence consumer goods on the shelves available to us. It may take 5 to 10 years to improve techniques that go into military weapons and another 5 to 10 years before consumer goods are greatly affected. So, there is a period of 10 or 20 years during which the main stimulus is military, or, maybe, health, or agricultural science; and the drifting-down process from basic research to industrial commodities usually takes too long for private firms to finance.

Representative CURTIS. One of the papers suggested that we were importing and had been for several generations, our basic science, and that the time had come when we could not do that anymore. That brought to my mind a question.

If we are importing it, and I have heard that before, and there is certainly a lot of indication that we are, these other societies from which we actually imported the individuals, they were immigrants, what sort of structure did they have that developed basic science?

The answer seems to be that it was their universities. Then my question was: Were they financed through the Government or was it some other way? Well, there was no complete information on the subject. I wonder if the panel would comment on that.

Mr. HILL. I might try. By and large, the industrial revolution started in Great Britain, and the pioneers, the small industrialists, were self-trained. They were primarily jacks-of-all-trades. The colleges and universities were, to a large extent, religious institutions or oriented toward the classics or literary studies. It was organizations sponsored by government, such as the Royal Society of London, with a charter from the King, that stimulated scientific and technical advance, plus the jacks-of-all-trades, the industrial pioneers.

Germany's industrial development, coming later, could benefit by borrowing this technology, already developed. But Germany, through government and industrial support, started technological schools. There was a systematic learning of the already developed industrial technology. Technical and scientific work was also introduced into the German universities.

France, perhaps, should be mentioned before Germany. There were French Government schools to train engineers and mining experts and other technicians of that sort. The United States, to a certain extent, borrowed these French engineers, starting with the American Revolution. They were frequently our military and civil engineers, and we used them for half a century or so. Then, too, some of the first or second generation British technical experts migrated on our encouragement, even when it was illegal for them to leave Great Britain.

Americans started studying in Germany in the 1870's, 1880's, and 1890's, and they also studied prior to that in the French Government schools of science. In this way, we borrowed both the intuitive, self-taught know-how of Britain and the school-taught technologies of France and Germany, in the latter cases largely government sponsored.

With the European countries, the early promotion of science and technology was the work of universities as it was of industry, Government, and the technological schools. As witnessed by the rise of the American universities, particularly the State universities and the agricultural and mechanical colleges, it is in the United States that we find the universities really taking initiative in practical and scientific developments. That occurred mostly after the Civil War. Industry, in the same period, started supporting technological schools in this country.

Mr. CARTER. May I say that I find myself again somewhat in disagreement with this thought of taking research from a pool or importing it from somewhere else, because I think it is a living thing. I think it is growing and expanding and I think in America we are contributing to the fundamental knowledge as rapidly, perhaps, as anywhere else.

Take, for example, the University of California with its cyclotron and all of the subatomic physics research that has been going on there

and at Brookhaven. In the studies of radiation, and its effects upon plastics and other materials, there is much of this basic research that is continuing. I realize that, perhaps, I am throwing some confusion in here, but I feel that research is nothing more than the acquisition of truth and knowledge, and we are continually striving to get more of it.

Some of it we get by setting out specifically to find that piece of knowledge, but much of it we find in the experience, by trying to solve problems, some of which are very practical. Nevertheless, in order to solve them, we have to find new knowledge along the way.

So, I think of research as a stimulator, as I say, to progress and a leavening agent, rather than just something you can take out of a bin.

Mr. BURGESS. May I add a comment, Mr. Curtis?

It is my belief that throughout this country's history we have countenanced an overemphasis of material improvement and acquisitions to the detriment of our spiritual, cultural, and scientific growth.

While we have two cars in many garages, our security is threatened, and, hence, our ability, eventually, to utilize these material resources we now have. In other words, we have improved our standard of living and sacrificed, meanwhile, our scientific, cultural, and spiritual growth, as well as our national security.

We can promote our national security by putting less emphasis on improving the standard of living so rapidly.

Mr. CARTER. That is the point for which I held up this cartoon. I would like to give these statistics: In last year's budget, without the procurement funds added, of \$3 billion for research and development, there were \$2.7 billion for weapons systems and components research. There were \$300 million for the human-resources research, medicine, agriculture, education, welfare, and so forth.

The alarming thing was that we found only \$361,000 for research by the State Department. The Department of Defense puts \$8 million into a single B-52 as just one of our tools to help make the other fellow behave. We are spending a very small amount of money on research to better understand our overall international relations.

That is not talking about the foreign-aid program. Maybe the foreign-aid program itself could be handled better by doing a little better planning and research in applying it. But I certainly want to emphasize the point that has just been made by Mr. Burgess. Some of the truths we want to find are the truths on how to live together.

Representative MILLS. Let me direct your attention to the second question that we have already raised. Let me say this: Really, this is not, to me, just an academic discussion because, although I do not know personally, I am sure that we have people in Government who are spending a great deal of time at the moment trying to improve organizational and institutional procedures in the use of research resources as well as trying to find criteria by which to answer the question we discussed earlier.

If you can give us information that will be of help to us with respect to criteria that we may use in the improving the management of our resources in this area, I would like to have those. You have gone over them somewhat in your papers, but let us see if we can bring them down into 1, 2, 3, in their proper order.

Mr. Burgess, would you begin?

Mr. BURGESS. With respect to the criteria?

Representative MILLS. Yes; for improving our management of resources, organization, and management of them.

Mr. BURGESS. I have one suggestion that might offer a partial solution to the problem of increasing our amount of basic research, which, I believe, must be financed primarily by the Federal Government.

It is my observation—and I think there is considerable evidence to support it—that many proposals of a basic research nature are turned down by Federal agencies or never even considered because of the requirement that the entire program be set forth in detail, including the objectives to be sought, the facilities needed, the personnel, the time that the project will take, and the results to be expected.

This is a present requirement of the agencies supporting basic research, because they fear criticism from Congress or from the public if they should make a research grant from which profitable and important results do not flow.

It is my belief that it would encourage basic research if the Congress were to declare it to be its policy, either in an appropriation bill or in a committee report, that in recognition of the fact that research results are unpredictable, a certain percentage of the total research appropriation could be allocated more or less as a blank check by the agency. The agency, in turn, would have rather complete freedom to make an allocation of this sum, say, 10 or 20 percent of the total research appropriation, for basic research, without setting forth, either to the Congress or to the public, a detailed program, plan of procedure, and results to be expected.

I think, if the present requirement, which is not statutory, of course, but is merely felt to be a necessity, were removed by such a declaration of policy on the part of Congress, we might very well get a considerable increase in the amount of basic research conducted.

I think that this is a fundamental problem. The agencies, in many cases, I am told, will write up a project, actually considered to be more in the nature of basic research, as if it were applied research, with the program set forth in detail and the results to be expected, in order to convince the public and the Congress that this expenditure is justified.

I think that this compulsion should be removed, if there is any way possible to do it.

Representative MILLS. Mr. Carter.

Mr. CARTER. That is no-year funds as against 2-year funds. There is a need for continuity. I certainly second the point of Mr. Burgess on the point of long-range programs. The funding should take adequate consideration of the time of the funding, and not have a basic problem go 2 years and then have it changed and lose the team because of discontinuity.

However, I think it might involve a relatively small amount of money for the long funding programs. However, since we are talking about total expenditures and we are talking about the billions of dollars, I feel that there is a possibility of studying the allocation of research effort to do better programing for achieving certain objectives, thus reducing lead time and cost of new weapon systems.

That is a point I speak of as operations research. Let me go back to just one more specific suggestion. I do not believe any of us here would be capable of lining up these criteria that you speak of to measure the result of research effort.

We could make contributions, but we cannot do it alone. I think something like a Council of Scientific Advisers, made up of properly qualified men representing the various phases of research, might well be justified, to be called in session for defining these criteria for you. I think that would be worth more than getting criteria from our panel on the spur of the moment.

Representative MILLS. What function would you give to such a council?

Mr. CARTER. One thing that I was hoping, and I do not want to anticipate Dr. Killian, and one thing we really need to know is to have an assessment of our capabilities and growth. Our research organizations have grown in such a way that I doubt that there is a good national inventory of capabilities, including a good listing of the major programs that are being carried through.

I think it is good business to take stock of where we have been and where we are going. I would suggest that would be one of the things that goes to making up the overall analysis.

Representative MILLS. Would you give the council the authority to reallocate these scarce and highly skilled resources from one project to another?

Mr. CARTER. I don't think you need to give them the authority to reallocate it. I think we need first to find out where they are and how they are applied. I covered some of this in the longer paper, including the ideas of the inventory of research facilities and the analysis of the programs.

Representative MILLS. I have read your paper.

Mr. CARTER. In the analysis of the programs, we can make analyses of the duplications in those programs and eliminate quite a little bit. Then, I think if we can find several layers of management that can be removed to make more effective direct line control, it would be advantageous.

The other point has to do with improvements individual organizations can make. Our organization has just made economies amounting to about \$50,000 per month. This has been healthy and constructive. It has not been arbitrary. It has been by plan.

The emphasis I am putting on is planning our research programs according to their effectiveness, not according to arbitrary cuts or infusions for fiscal expediency.

This is a difficult time to make economies when external pressures require fast response.

Representative MILLS. Professor Hill?

Mr. HILL. As I see it, the greatest problem in this entire area is that of formulating policy, that is, achieving a responsible policy-making and policy-administering process. This concerns the executive branch, the Congress, the public, and the community of scientists, as well as the way scientists are regarded by the general public.

In exploring this problem, I have tried to see what would do justice in these several areas. It seems to me that a Joint Committee on Science Policy in the Congress would be as important as a Council of Scientific Advisers in the White House, and that there would need to be an Advisory Committee on Science having liaison with governmental, industrial, university, and professional organizations.

This machinery should work in such a way as to highlight or give attention, publicity, and public discussion to the many questions, in-

cluding what are the proper criteria, which we must resolve concerning science policy. "We" means the entire Nation—the White House, the Congress, and the public. We have to ask what are our goals, and what do we want from science? What are our resources? What are the possibilities of using these resources to achieve our goals or objectives? Policymaking is fundamentally involved here, and thinking has to run in these terms in the Congress, in the Executive, and throughout the public.

With machinery I contemplate, a Council of Scientific Advisers would draw up periodic reports, let us say annually, that would rest on careful study of scientific trends and needs, long-run as well as short-run needs.

These reports would be submitted to the President, would be examined and commented upon by him, and would then go to the Congress to a Joint Committee on Science Policy. This committee would operate in a manner more or less paralleling the Joint Economic Committee. These procedures would draw further public attention, as well as the attention of Congress, to the large issues of how to allocate our scientific effort—how much to military as opposed to civilian needs, and how much to aid small business, the farmers, and public health, as opposed to the other needs.

I am not concerned with machinery that would involve czars over scientific research or anything like that, but rather machinery that is of the essence of policymaking, which would ultimately help the man in the street to understand the issues of the impact of science on society when science is applied to military needs and to problems of material welfare.

Everything I have tried to say in my paper and in this discussion has been addressed to this policy problem in its broadest scope.

Representative MILLS. Dr. Honey?

Mr. HONEY. The same approach as was suggested by Mr. Curtis with respect to the problem of allocation of resources for substantive research and development programs, applies if we are thinking about the development of criteria for judging the adequacy of research and development organizations.

I take it this is still a relevant question. It seems to me that we have to look at the organizational level that we are talking about in the national research structure when we raise the question of criteria. Let me give one illustration which I think may be relevant to the interests of Representatives here.

If we are talking about the adequacy of the top level executive branch organization for the development of guidelines for the Federal research and development effort, a fairly simple set of questions can be asked about the performance of that organization in the preparation of the Federal research and development budget on a yearly basis.

We can ask the question as to whether the statements of need which come in from the various research and development agencies of the Government are accompanied by indications as to the resources, the critical resources, which will be involved, the manpower, facilities, and so forth.

We can ask whether there has been a comparison among the programs, particularly the programs in related areas, in order to assess broadly where there may be duplication, overlap, complementary efforts, which have been undertaken.

We can ask to what extent these programs have been reviewed against broad objectives of the Government, or of the administration. If, in asking these questions, we find that machinery is not in fact available to do these fairly rational, fairly simple things. Thus it seems to me we have asked questions which shed light on the quality of existing organization.

These criteria, of course, would not be relevant for making judgments about research organizations at the laboratory level, but it seems to me when you are talking about organization at top levels in the Government, these are the kinds of questions that can be asked, these are the kinds of criteria that can be brought to bear.

Are the programs well rationalized; are existing factual data brought to bear? Is the program content communicated to other organizations working in the same areas?

These simple questions can be asked to provide a basis for judgment about organization.

Representative MILLS. Mr. Newbury?

Mr. NEWBURY. It seems to me that Congress is in the position of a board of directors of an industrial organization in connection with allotment of funds for development and research. Congress can deal with the broad questions, of fields where research and development can be undertaken, but Congress cannot, as I see it, evaluate individual projects or narrow fields. It seems to me that Congress should satisfy itself that each executive department has adequate and satisfactory organization to conduct its own research or development job and, of course, Congress must be cognizant of all the other demands for money in addition to research and development proposals.

The criteria that I think you are asking for, Mr. Mills, must be on a very broad basis as far as Congress is concerned. You cannot get into details. Management as a legislative function, of course, is to see that the right amount of money is appropriated and properly spent; but this can be done only through confidence in the type of organization and the quality of results that come out of each executive department; and not by a detailed examination of individual projects.

Representative MILLS. I agree with your statement with respect to what Congress can do, except, of course, that Congress is charged with the responsibility to see that funds are properly used. It is in that connection that I ask these questions, so that the Congress may reach some conclusion from the point of view of organization and from the point of view of the maximizing of these research resources as to whether or not funds have been properly used or best used.

You gentlemen have been very helpful. Your papers have been very good. I want to compliment you again.

Mr. Curtis has another question.

Representative CURTIS. It is not a question. I wanted to do something to preserve an item for the record, and also because it is in the proper context. I asked the staff to get the Executive order setting up Dr. Killian in his position as the Special Assistant to the President for Science and Technology.

I find that there is no Executive order. Apparently, the extent of the authority is in the President's speech. But because of its pertinency and knowing that newspapers get lost, I would like to have this inserted into the record, if I may. It is from the New York Times, Friday, November 8, 1957.

Representative MILLS. There being no objection, it will be inserted.
(The newspaper clipping of the New York Times is as follows:)

[From the New York Times, November 8, 1957]

To that end, I have created a new office called the Office of Special Assistant to the President for Science and Technology. This man, who will be aided by a staff of scientists and a strong advisory group of outstanding experts reporting to him and to me, will have the active responsibility of helping me follow through on the program of scientific improvement of our defenses.

I am glad to be able to tell you that this position has been accepted by Dr. James R. Killian, president of the Massachusetts Institute of Technology. He is a man who holds my confidence and enjoys the confidence of his colleagues in the scientific and engineering world, and in the Government.

Through him I intend to be assured that the entire program is carried forward in closely integrated fashion. He will help to see that such things as alleged interservice competition or insufficient use of overtime shall not be allowed to create even the suspicion of harm to our scientific and development program.

Moreover, Dr. Killian will see to it that those projects which experts judge have the highest potential shall advance with the utmost possible speed. He will make sure that our best talent and the full necessary resources are applied on certain high-priority, top-secret items which for security reasons I know you will not expect me to enumerate.

In looking to Dr. Killian to discharge these responsibilities, I know that he will draw upon the full abilities of the scientists and engineers of our whole country.

ON MISSILE DEVELOPMENT

Second: In the Defense Department is an official, directly responsible to the Secretary in charge of missile development. I have directed that the Secretary make certain that the guided missile director is clothed with all the authority that the Secretary himself possesses in this field. Dr. Killian will, of course, work intimately with this official.

Representative CURRIS. I have one other comment.

It seems to me that some work is being done in this area of setting up criteria as well as management in the private sector. I was very much interested about 2 or 3 weeks ago being invited to a session where one of the gentlemen from Booz, Allen & Hamilton, management consultants, one of several firms in this business, one of the better ones, I know, was presenting a paper, a lecture, really, on management of new products.

It was exactly in line with the kind of thing that we are talking about here. I am looking at some of the breakdowns: "Why some manufacturers cannot live with new products"; "Why most new products are failures"; "How scientific manpower is being wasted"; "What new product programs work best and why"; et cetera.

But in getting into the details as the speaker did, it seems to me that they have gone into, in the private sector at any rate, many of the same areas that we are trying to explore here.

It is possible that we might gain considerable help in trying to establish criteria in terms of management, how to set up our structure in the executive department, as well as the criteria that those who are set up, might use to evaluate these programs. I just wanted to call that to the committee's attention.

Representative MILLS. Thank you again, gentlemen, for the papers which you have submitted for inclusion in the compendium and your appearances today, and the information given the subcommittee. You have been most helpful to us. We appreciate your appearance today.

Thank you very much.

This concludes this series of hearings. Without objection, the subcommittee will include in the record additional materials submitted in connection with this study which may be delivered to the staff or to the chairman of the subcommittee.

Thank you again, gentlemen.

The committee stands adjourned.

(The following was later received for the record :)

NATIONAL SCIENCE FOUNDATION STATEMENT ON RESEARCH AND DEVELOPMENT
AND ITS RELATIONSHIP TO THE ECONOMY

Within recent weeks, the general public has become acutely aware of the promise and problems of scientific achievements. Since World War II the Government has taken a number of specific actions to foster scientific achievement. One of the most obvious developments has been the increase in Federal funds requested by the agencies and appropriated by the Congress for scientific research and development.

Concomitantly, a number of organizational changes have been instituted in order to cope with specific scientific problems on a national basis. New Federal organizations have been created; existing organizations have been expanded and their functions revised to meet current or anticipated challenges. For example, immediately following the war, Congress established the Office of Naval Research in the Department of the Navy to continue the Government's wartime support of basic research in many scientific fields. The war-born program of nuclear research and production was transferred from military to civilian control with establishment of the Atomic Energy Commission. Within the Department of Defense, scientific research and development has been elevated organizationally to the top level. The Public Health Service responsibilities for research and training have undergone marked expansion, along with those of a number of other agencies with long-term responsibilities in scientific undertakings.

Recognizing the continuing and expanding interdependence of Government and the scientific community, the Congress in 1950 created the National Science Foundation, which was established "To promote the progress of science; to advance the national health, prosperity, and welfare; to secure the national defense; and for other purposes."

The Foundation's responsibilities stem from Public Law 507, 81st Congress, which directed it, in part—

"* * * to develop and encourage the pursuit of a national policy for the promotion of basic research and education in the sciences;

"to initiate and support basic scientific research in the mathematical, physical, medical, biological, engineering, and other sciences, * * * and to appraise the impact of research upon industrial development and upon the general welfare; * * *

"to award * * * graduate fellowships in the * * * sciences;

"to foster the interchange of scientific information among scientists in the United States and foreign countries * * *."

The functions of the Foundation were further defined by the President in Executive Order 10521 of March 17, 1954.

Basic research and education in the sciences provide the long-range approach to our future as a Nation in terms of development of new products and processes and of new industries, conquering the problems of disease and of aging, and providing the weapons required for the national security. These approaches are the beginning of a chain of events which affect our total economic growth and stability. Therefore, the Foundation, within the limitations of its resources, supports vigorous programs of basic research in the physical and life sciences.

Comprehensive data for 1953-54 on financing and performance of basic research indicate that a major portion of such research is carried on at colleges and universities. Our academic institutions—with their tradition of free and unhampered inquiry—are indispensable for both the maintenance and increase of the national basic research effort. It follows then that the major portion of the Foundation's funds for basic research are distributed to this group of institutions.

Likewise, the Foundation's programs for further increasing the pool of scientific manpower are concentrated in the Nation's educational institutions. These include the fellowship program which permits outstanding graduate students in

science to receive more advanced training and to enable gifted students to extend their training well beyond the normal limits. In addition to the fellowship programs for graduate, postgraduate, and senior post-doctoral fellows, the Foundation is engaged in other educational activities to improve the quality and quantity of instruction in the sciences.

As science has developed, complex and expensive research tools have been created. New fields, requiring extensive instrumentation, have emerged. Because of the combined pressures of increased enrollment and inflationary costs, the universities have been unable to provide funds for obtaining certain types of modern research equipment, and private sources have not filled the gap. As progress in basic research and in the training of new scientists is becoming increasingly dependent upon the availability of modern research equipment, efforts have been made by the Foundation to assist universities in obtaining the necessary research tools.

Since progress in science is also dependent upon the ready availability of research results, the Foundation engages in two general types of scientific information programs:

(a) those which are concerned with achieving the maximum possible dissemination of scientific information, using procedures and techniques now available, and

(b) those which involve problems of elimination of duplication and overlap in the information field and the application of mechanization such as high-speed storage and distribution systems.

In addition to its responsibilities in the activities enumerated above, the Congress, by means of the National Science Foundation Act, and the President, by Executive Order 10521, have made it not only possible but also mandatory that the Foundation engage in studies designed to illuminate current problems and provide basic information upon which future policy decisions may be made.

Such past studies and policy recommendations include the report of the Foundation's Special Commission for Rubber Research entitled "Recommended Future Role of the Federal Government With Respect to Research in Synthetic Rubber."

In June 1957, the Foundation transmitted to the Bureau of the Budget a report on Federal Financial Support of Physical Facilities and Major Equipment for the Conduct of Scientific Research. The purpose of the report was to (a) describe the current status and nature of financial support by the Federal Government of physical facilities and major equipment for scientific research and development, and (b) present for consideration recommended courses of action by agencies of the executive branch with respect to financing research facilities needed to promote the progress of science and to advance the national welfare. The report constituted the first overall review of research-facility support by the Federal Government, and included policies, criteria, and procedures which should accompany Federal support of research facilities.

Basic Research—A National Resource was transmitted to the President in October 1957. As stated in the letter of transmittal, the report was intended to "prove helpful toward bringing about a fuller understanding concerning the desirable balance to be achieved between applications of science to defense, health, and the economy on the other hand, and basic research activity—the 'defense in depth' for our whole technology—on the other."

The factual data for this last-named report were developed through a series of surveys on the research and development effort in the entire Nation, thus providing a new index of the Nation's economic strength. On the basis of these surveys, numerous other reports have been issued recently, providing the initial building blocks for subsequent surveys which will develop sound information upon which criteria and decisions regarding scientific research and development may be based. Although your subcommittee has been supplied with a copy of some of these reports, additional pertinent copies are attached.

On the basis of the initial studies of research and development, and looking toward the future, the National Science Foundation has developed a long-range program for the collection and analysis of research and development expenditure statistics related to all sectors of the economy—industry-oriented organizations, Federal Government, colleges and universities and other institutions including philanthropic foundations, health agencies, academies of science, and professional societies. In the industry sector a comprehensive survey is planned every 5 years and a limited study annually. The comprehensive study will be made concurrently with the quinquennial census of business and manufactures and will provide benchmarks and detailed analytical data on research and develop-

ment. The first survey, of a limited coverage, will be undertaken by the Bureau of the Census as a part of the annual census of manufactures covering the year 1957. In the Federal sector, annual surveys of research and development will be continued as contained in the Federal Funds for Science reports. It is expected that the Federal studies in the future will provide greater detail. Similarly, steps are being taken to obtain research and development data covering colleges and universities, foundations and other nonprofit institutions.

These statistics will furnish data for the time series of research and development that can be used in connection with an expectation study of research and development expenditures, thus providing guidelines to the future level of research and development.

The intention is to furnish a steady flow of data on major aspects of research and development. For example, a study is presently to be conducted on the volume of scientific research and development in Russia and the satellite countries, which will be based on available information from publications and other secondary sources. This study will provide comprehensive and detailed information on the present level and recent trends of Communist research and development expenditures and manpower, on a basis as comparable as possible to data for the United States, by type of research, fields of science, and sectors of the economy. The study will meet a pressing need for more complete information about the Communist investment in research and development.

The Foundation has a similar long-range program with respect to manpower. The demand and supply of scientists and engineers will be examined in detail, by fields, industrial function, and by sector of the economy. These statistics will be supplied on an annual basis.

In connection with the National Science Foundation Act, which directs the National Science Foundation to "appraise the impact of research upon industrial development and upon the general welfare," the economic effect of Federal and of industrial research and development on the economy is being examined. The industrial analysis will trace the effect of research and development on individual firm growth. From this, the study will be extended to individual industries and finally to the national economy.

The National Science Foundation desires to cooperate with the joint committee and is looking forward to future occasions to report progress on these and other projects. Suggestions will be welcomed from the joint committee and its staff as to areas that they believe should be further explored as part of the Foundation's responsibilities.

(Whereupon, at 4:05 p. m., the hearing was adjourned.)

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