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ECONOMIC EFFECT OF VIETNAM SPENDING

HEARINGS
BEFORE THE
JOINT ECONOMIC COMMITTEE
CONGRESS OF THE UNITED STATES
NINETIETH CONGRESS
FIRST SESSION

—
APRIL 24, 25, 26, AND 27, 1967
—

Volume I:
Statements of Witnesses
and
Supporting Materials



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ECONOMIC EFFECT OF VIETNAM SPENDING

MONDAY, APRIL 24, 1967

CONGRESS OF THE UNITED STATES,
JOINT ECONOMIC COMMITTEE,
Washington, D.C.

The joint committee met pursuant to notice, at 10:05 o'clock a.m. in room 1202, New Senate Office Building, Hon. William Proxmire (chairman of the joint committee) presiding.

Present: Senators Proxmire, Symington, and Jordan; and Representatives Moorhead, and Curtis.

Also present: John R. Stark, executive director; and Daniel J. Edwards, staff economist.

Chairman PROXMIRE. Today we start the Joint Economic Committee hearings on the past and future impacts of Vietnam spending on the U.S. economy. As I pointed out during our hearings on the President's Economic Report, "Lack of accurate expenditure information handicapped the Congress seriously in reaching appropriate tax, spending, and other economic policy decisions."

Our present purpose is to obtain clarification on three basic questions:

First, is Congress being adequately informed on the rate of change of defense expenditures right now? That is, are they going up, as some interpret, or are they going down, as others interpret?

Second, what impact on our manpower and resources is the Vietnam war now having? I cannot recall any time in our history when the Congress has attempted to assess the full economic impact of a war. In this sense, we may be pioneering, in this inquiry, in a most important aspect of economic policymaking, because we all know the immense and significant and often changing impact that wars have had in the past on our economy that undoubtedly this war is having.

Third, if the President is successful in terminating Vietnam hostilities, are adequate contingency plans available for conversion of the "wartime" uses of our resources into peaceful pursuits.

As background to the first question, let us review briefly the past record.

In August 1965, Secretary McNamara requested a supplemental of \$1.7 billion over and above the original budget request to finance military obligations. Then in January 1966, testifying on supplemental appropriations requests for 1966, the Secretary requested \$12.3 billion in new obligational authority. It appears that this figure was based on the assumption that the war would be terminated in June 1967, that is, June of this year.

The request for the fiscal year 1967 was based on a similar postulate, that is, that military operations in Vietnam would continue through

June 1967. In effect, the Department of Defense had assumed an artificial cutoff in its underlying assumption. In August the Secretary indicated to the Appropriations Committee that funds were probably insufficient but that they were not in a position to make any estimates at the time on supplemental needs. While it must have been fairly obvious that costs of the Vietnam war were outrunning funds, Congress was not able to obtain an estimate of the additional amount required until late November 1966 when it was indicated that expenditures would be some \$10 billion higher than originally estimated.

Now we are assured that the budget requests submitted for the fiscal year 1968 are based on more realistic assumptions. They do not have an artificial cutoff date. Even so, there are now rumors abroad—I should say charges—by very well-informed Members of Congress, that there will be a very sharp increase in our troop commitment in Vietnam with attendant increases in expenditures, so that this committee and other committees of Congress face the same old problem of trying to assess our economic performance and prospects in the face of highly uncertain figures on expected military expenditures.

Quite appropriately our hearings will start with the Department of Defense. Assistant Secretary Anthony is a most competent public official and I know that he has an impressive mastery over the facts and figures. We are pleased to hear from him now.

Mr. Anthony.

STATEMENT OF HON. ROBERT N. ANTHONY, ASSISTANT SECRETARY OF DEFENSE (COMPTROLLER)

Mr. ANTHONY. Mr. Chairman and members of the Joint Economic Committee, I have a statement that with your permission, I would like to read.

Chairman PROXMIRE. Yes, it is a good statement, I wish you would.

Mr. ANTHONY. I am grateful for the opportunity to appear before this committee to discuss a topic of vital importance to the management of our economy. While always a subject of concern to policy-makers, the economic impact of defense expenditures assumes a special importance during and immediately after our involvement in hostilities.

At first glance, defense expenditures may not seem to constitute a major factor in our economy. Expenditures of the Department of Defense, including the military assistance program, will amount to only 8.9 percent of gross national product in fiscal year 1967, which incidentally is exactly the same percentage as that in 1962. However, these expenditures have an importance beyond their absolute magnitude, for two reasons. One is the fact that defense expenditures have not only a direct effect, but also an indirect impact through the workings of the multiplier phenomenon. The other reason is that defense expenditures can be volatile, particularly when a sudden change in the level of defense activity is necessitated by changes in the world situation. At such a time, the Defense Establishment is required to make a rapid adjustment in its plans in order to meet the requirements of a new contingency. Such an adjustment has effects on employment, investment, and inventories in the economy at large. Moreover, this impact is uneven; there is a major effect on certain industries and

certain regions, and much less on others. Economic strains are also felt in disengaging from a war effort. Thus, it is important that accurate estimates of defense expenditures and obligations be prepared for the use of economic policymakers in framing the fiscal and monetary policies with which they seek to minimize the strains involved in making such adjustments.

DEPARTMENT OF DEFENSE FORECASTING TECHNIQUES

It is important to appreciate the fact that although we *forecast* the expenditures in a given year, we do not *control* the expenditures. Congress does not appropriate in terms of expenditures; it appropriates in terms of obligating authority, that is, authority to obligate the Government—to contract for the acquisition of goods and services. Control is exercised over the placing of contracts, but expenditures arise whenever a contractor sends us a valid invoice under the contract. We do not control the timing of these invoices. When we get a valid invoice, we pay it just as promptly as we can. Our forecasts are, therefore, estimates of when these payments will be made.

We develop these forecasts by projecting the annual increment of expenditures for each of the fiscal year programs within an appropriation account. Each of the 76 Department of Defense appropriation accounts is examined separately, and a spending pattern is established for it based on historical behavior. These patterns differ greatly for the various types of appropriations. At one extreme is "Retired pay," in which we spend well over 99 percent of the program amount in the year for which the appropriation is made. At the other extreme is the "Shipbuilding" appropriation, for which the typical pattern is that only approximately 13 percent of the amount appropriated is spent in the first year, 12 percent in the second year, 25 percent in the third year, and so on for a total of 7 years. The expenditures for the various procurement appropriations spread over periods that vary from 3 years to 7 years.

After receiving the appropriation for a new ship, for example, we must complete the plans for the ship, seek bidders, and award the contract. The contractor then proceeds to order the material and to build the ship. It follows that the expenditures associated with this ship are quite small during the design phase, they rise gradually as the first material arrives and is paid for, they reach a peak as actual construction proceeds, and then they taper off.

These patterns of spending display a reasonable degree of consistency over time, but, of course, they are not absolutely stable. In the early 1960's, for example, as we shifted away from the cost-plus-fixed-fee type of contract and toward incentive types, there was a definite effect on expenditure patterns. Similarly, the exigencies of a buildup, such as we have experienced in recent months, tend to speed up expenditures, and for this reason we have established special patterns for those portions of appropriations that are specifically related to Southeast Asia activities.

These patterns are the basis for our forecasting model. The model itself is technically simple. Historical spending patterns are plotted for each appropriation. Forecasts are then made of the percentage of total expenditure of the funds appropriated for each year which will

be spent in the year for which the forecast is being made. In making each forecast, we do not simply read a figure off a graph of historical spending patterns. Rather, we make a judgment for each appropriation based on the recent trend of existing programs, the trend of the patterns from year to year, the changing composition of the program content and the urgency of the requirements. Summed together, the projections for the 76 individual appropriations provide an estimate of expenditures for the Department of Defense. Each year, the expenditure patterns for the individual appropriations are replotted to take account of the past year's experience. These forecasts are checked against similar forecasts prepared by the military departments and Defense agencies.

In recent years, the forecasts have proved to be quite accurate. In fiscal year 1966, for example, the forecast contained in the President's budget, including the increment projected for the supplemental appropriation, was \$54.2 billion, actual expenditures were \$55.4 billion. However, the model is no better than the inputs, that is the figures for new obligational authority, the unobligated balances from previous years, and the spending patterns. If, in any given year, the Congress should alter the scope or composition of requested funds, or should a contingency develop that requires a significant supplemental appropriation of funds, actual expenditures obviously would be thrown off from the original projections.

The Department normally makes three official expenditure forecasts for each fiscal year. Taking fiscal year 1968 as an example, the first estimate is the one contained in the President's 1968 budget submitted in January 1967; the second estimate will be made in the budget review document, which will be published in the fall of 1967 after the Congress completes its appropriation action; and the third estimate will be given in the President's fiscal year 1969 budget, submitted in January 1968, based on actual experience for the first 5 months of the fiscal year. In addition, the Department cooperates closely with other executive agencies by informally providing them with up-to-date estimates. Especially close contact is maintained with the Bureau of the Budget and with the Council of Economic Advisers.

An event such as the Korean war or the current Vietnam conflict creates problems in defense financial planning as well as bringing stresses to the economy at large. Disruptions occur in the patterns of defense obligations, expenditures, production activity, and inventories. Government and industry people alike know that defense spending will increase, but no one knows how large the increase will be, or how it will affect specific sections of the economy.

Many ways of coping with this problem have been used, with varying degrees of success. Some business firms adjust their inventories and hire new employees in anticipation of increased work. Other firms make no adjustments until they actually receive new contracts. Government financial planners similarly can adjust in either of two basic ways. They can make a guess as to the extent and rapidity of a build-up and immediately request the corresponding obligational authority as a lump sum amount. Alternatively, they can wait, internally adjusting available obligational authority to meet new requirements, and base a supplemental request on later, more complete information.

There are many possible shadings of these two approaches, but between them lie the potential courses of action.

In the Korean war, the Department of Defense attempted to make immediate best guesses as to the size and duration of the conflict, even during its earliest stages. This procedure led to severe estimating problems. At first, it was assumed that the war would be of quite short duration, and fund requirements were adjusted accordingly. Several months later, Red China entered the war, and this required a substantial revision of the estimates of the extent of our financial requirements. In fiscal year 1951, the first year of the war, the Defense Department came to the Congress with three separate supplemental requests. Supplemental requests were also made in each of the following 2 years. Each of the initial budget submissions was based on an assumption that the war would end at the conclusion of the fiscal year being budgeted for.

These estimates of funds needed turned out to be considerably overstated. The magnitude of the overstatement is readily apparent from the following figures: The Department of Defense requested a total of about \$164 billion for the military functions for the 3 fiscal years 1951-53; the Congress appropriated a total of \$156 billion; the amount actually expended was \$102 billion; and the unexpended balances rose from \$10.7 billion at the end of fiscal year 1950 to \$65 billion by the end of fiscal year 1953. It took 5 years to work the unexpended balance down to about \$32 billion. During the 4 fiscal years 1955-58 no additional funds had to be appropriated for Army procurement; the Army lived off excess funds appropriated during the war.

A major problem with such a financial planning policy is that it is much harder for both the Congress and the executive branch to exert effective budgetary control when the outstanding amounts available for obligation far exceed actual needs.

In order to avoid problems of the sort encountered during the Korean war, we consciously tried to learn from that experience, and we chose a very different approach for financing the current conflict in Vietnam. Our commitments for Vietnam began a rapid expansion early in fiscal year 1966. In less than 4 months we deployed 100,000 men to Vietnam. During the fiscal year, we added 439,000 men to our Armed Forces. During the same period, the Vietcong and North Vietnamese military strength was also rising rapidly. At the time, it was virtually impossible to estimate how rapidly our commitments would rise, or when they would level off. Against such a background, estimation of financial requirements and calculation of resulting expenditures could not be made with any degree of confidence for more than the few months in advance for which relatively firm deployment plans did exist.

And yet, it was just at this time that the fiscal year 1967 budget request had to be prepared. The problems in selecting assumptions on which to base this budget were manifold. Meaningful planning as much as 18 months in advance was most difficult, given that we were then still on a sharp buildup curve in our deployments to Vietnam. The eventual requirement for forces was still quite uncertain. The scope of the air activity rested on still unmade military/political decisions.

Furthermore, we had little experience on which to base estimates of attrition, wearout of equipment, and consumption of munitions and supplies of all kinds. The Vietnamese situation was in many respects quite unlike the Korean conflict, and the activity and consumption rates developed during that conflict were therefore very inadequate as indicators of the rates to be expected in Vietnam. The central point I want to make is that the outlook at the time the fiscal year 1967 request was prepared was clouded by a high degree of uncertainty.

In view of this uncertainty, we decided to construct the fiscal year 1967 budget on the arbitrary assumption that combat operations would be financed through June 30, 1967. Translated into Defense financial policy, this meant that funds were not included in our request for the purchase of items that would be needed in fiscal year 1968 and beyond, should the conflict continue. Therefore it was apparent that if the conflict was thought to continue beyond June 30, 1967, or if activity rates increased beyond those forecast, then additional funds would be needed before the year was over. In accordance with this assumption, we developed a budget with requests for new obligational authority of \$59.9 billion. Based on this budgetary request, we estimated that fiscal year 1967 Department of Defense expenditures would total \$58.3 billion.

Between January 1966, when the fiscal year 1967 budget was presented to Congress, and October 1966, when it was enacted, major developments occurred in the Southeast Asia situation. A possible end of the period of rapid buildup of forces became foreseeable, and the dimensions of the probable extent of our eventual commitment began to emerge. It became clear to everyone in the executive branch and the Congress that we could not with prudence assume that hostilities would cease by the end of fiscal year 1967. Furthermore, the current rate of buildup was exceeding the rate assumed in the preparation of the fiscal year 1967 budget.

Some suggested that the fiscal year 1967 budget should be amended in the summer of 1966, but there still was not a good basis for estimating the total needs for fiscal year 1967. For example, at one stage the Congress added \$549 million to the appropriation bill for additional military personnel costs, whereas the actual additional requirements for military personnel are now estimated to be closer to \$1.4 billion, almost three times as much.

Therefore, instead of requesting an amendment on the basis of inadequate estimates, it was decided to operate with available funds. This required reprogramming actions, and these were submitted to the congressional committees in accordance with normal practice.

Mr. McNamara fully explained the policies that were being followed in testimony before congressional committees in the summer, and Chairman Russell of the Senate Appropriations Committee and Chairman Mahon of the House Appropriations Committee explained the situation on the floor. On August 18, Senator Russell stated "If the buildup in Vietnam continues at the present rate, I do not think there is any question that there will be a very substantial supplemental request the first of the year, which may be \$10 billion; it may be more." On August 25, Congressman Mahon said, "It is generally estimated that a supplemental will be required next year * * * in the sum of \$5 billion to \$15 billion."

Early in 1966 we had only a feel for a broad range in which the supplemental might fall. As the year proceeded and the level at which our buildup would likely flatten became more apparent, we were able to narrow the range of our estimates. In contrast with the unsubstantiated broad estimate that would have been necessary if the request had been submitted earlier, the supplemental request submitted in January 1967 was based on a careful analysis of requirements, and was prepared and submitted in the same detail as our regular budget requests. Hence, the authorizing committees and the Appropriations Committees were able to examine it just as they examine any budget submission.

Our revised estimate of expenditures during fiscal year 1967 made at this time called for an additional \$9.7 billion.

At the time we were making our estimates of the size of the needed supplemental appropriations and the resulting expenditure impact, other executive agencies and various Members of the Congress were making their own expenditure estimates based on projection of trends and comparison with the previous year. Subsequent events have shown that several of these estimates were quite accurate. The point is, though, that we in the Department of Defense could not, solely on the basis of our early estimate, develop in good faith a supplemental budget request any earlier than we eventually did and still adhere to the principle of requesting funds only on the basis of specific requirements.

In preparing the fiscal year 1968 budget, we were able to follow a quite different planning assumption from that used in the preceding year. Our basic assumption for fiscal year 1968 was that the war would continue indefinitely at level of activity indicated in our current projections. Accordingly, we included in the fiscal year 1968 budget funds for the procurement of items for periods ranging from 6 months to 18 months beyond the end of fiscal year 1968, the length of time being governed by the procurement leadtime for each of these items. Thus, barring an unexpected significant change in the level of activity in Vietnam, or a new contingency elsewhere in the world, the fiscal year 1968 budget as submitted does represent a statement of our total foreseeable defense needs for that year. The main reason why we chose to base the fiscal year 1968 budget on this different set of assumptions was that we felt that we had a much better basis for judging the extent of our eventual needs than we had had the year before. By the end of calendar year 1966, the major portion of our projected force buildup was already completed. There was a much higher degree of confidence in our projected plans and forecasts when we appeared to be near the end of the curve representing our force building. Also, we were beginning to obtain attrition and consumption data for Vietnam and therefore were no longer required to use the obsolete rates based on the Korean experience.

POSTHOSTILITIES PLANNING

While we have chosen to budget for fiscal year 1968 on the basis that hostilities will continue indefinitely, we at the same time are making preparations for the contingency that they might end at any time. In dealing with a situation characterized by as much uncertainty as the Vietnam conflict is, it is of course essential that we develop plans in order to insure that we will be ready to alter our programs as soon as a major change becomes discernible.

One of the keys to a successful transition is the right inventory policy. In peacetime, we must maintain large mobilization reserves of inventory, so that the combat forces can be adequately supported between the time hostilities begin and the time that additional material flows from expanded production facilities. Once this expansion of production has occurred, however, we no longer need this degree of inventory protection. We can instead rely on the then existing production lines. Thus, during hostilities, inventories can safely be maintained at lower levels than is necessary in peacetime. We call this level the "hot-base" level, the level that is necessary when a hot production base exists.

When hostilities end, inventories must be built up to the "cold-base" levels, the levels necessary to sustain us when production lines are cold. This buildup provides an important cushion in the transition period. Instead of an immediate cessation of all Southeast Asia related production when hostilities cease, we can plan on a gradual reduction, using the excess output above the then current consumption needs for the buildup in inventory.

The implementation of this general policy is, of course, difficult because while the conflict continues, we must assure that current production is at least great enough to meet consumption requirements at the end of the production leadtime, and this is at least 6 months, and maybe as long as 18 months ahead. To be on the safe side, we inevitably do some overbuying, and this means that inventories of certain items will be higher than they should be when hostilities cease, but as a general proposition, we expect to be able to make the gradual transition that I have outlined.

Parallel to our internal planning efforts, a number of executive agencies are grappling with the broader question of the impact of a cessation of hostilities on the U.S. economy. The Arms Control and Disarmament Agency has sponsored a number of studies touching on problems of economic adjustment to a curtailment of defense activities, and we have cooperated actively in its efforts. And as you know, the President has asked Gardner Ackley, Chairman of the Council of Economic Advisers, to organize a major, coordinated effort among the executive agencies to review our readiness to make the economic adjustments which a termination of hostilities in Vietnam will require.

The Department of Defense is actively participating in this planning effort and has members on several of the working committees. We anticipate that our principal contributions are likely to consist of estimated changes in expenditures and in the numbers of military and civilian personnel employed by the Department under various assumptions as to the character of the posthostilities situation. In addition, we probably will be providing the working groups with some predictions of the regional impacts of adjustments in our procurement programs.

It would, of course, be inappropriate for me to speculate on the findings of this examination. I will offer the one comment that it would seem well within our capabilities to plan for and execute a smooth transition from support of our participation in the Vietnam conflict to a full peacetime economy. Our expenditures related to Southeast Asia, amounting to \$19.4 billion during the current year,

constitute only approximately 2.5 percent of the GNP. By comparison, an indication of the Korean war's impact on the economy is the fact that the Department of Defense expenditures increased from 6.7 percent of GNP in fiscal year 1951 to 12.2 percent in fiscal year 1952. An additional important reason why the post-Vietnam adjustment will not be so relatively large is that by keeping a tight rein on aircraft and ammunition procurement, to cite two major examples, we have handled our finances in such a way as to moderate the impact of the military buildup on the economy. All this effort is for naught, though, unless careful attention is given to the task of conversion to peacetime uses for resources. Thus, the most important assurance we have that a smooth transition can be accomplished is that the thorough planning effort needed is already underway.

I can give a preliminary idea of what the magnitude of the planning problem is. We have made a rough estimate that the incremental cost to support our role in Vietnam will be \$21.8 billion in fiscal year 1968. By incremental costs, I mean the costs over and above the normal costs of the defense establishment. These so-called "normal" costs are assumed to be the annual costs as they existed at the end of fiscal year 1965, adjusted for price changes and changes in activity not related to Southeast Asia. The increase of \$1 billion in our strategic forces program from \$7.1 billion in fiscal year 1965 to \$8.1 billion in fiscal year 1968 is a good example of the latter type of adjustment. Of this \$21.8 billion, we estimate that operating costs will be \$11.4 billion, split \$5.1 billion for military personnel and \$6.3 billion for other operating costs. Ammunition consumption we estimate at \$4.8 billion, aircraft and helicopter attrition at \$1.7 billion, equipment and spares consumption at \$3.1 billion, and construction at \$800 million.

I am sure you understand that it would be completely fallacious to subtract this \$21.8 billion from the \$73.1 billion expenditures for 1968, and conclude that the posthostilities budget of the Department of Defense will be \$51.3 billion. Obviously, future Department of Defense expenditures will be a function of developments in requirements for our non-Vietnam programs. It is impossible to predict now how these requirements will change. Furthermore, the posthostilities budget will be affected by wage and price changes. Wage increases have added a billion dollars a year to personnel costs in recent years. Payments to retired personnel increase approximately \$200 million annually, quite independently of current activities of the Department. Prices of purchased goods and services have risen an average of almost 4 percent annually since fiscal year 1965. For these reasons, the task of making posthostilities estimates is much more complicated than a matter of subtracting one figure from another.

There are problems and challenges involved in trying to determine economic policy while we are engaged in or disentangling from a major military conflict. During such periods, the timing and scope of policy adjustments assume critical importance, while projections upon which the policy recommendations must be based are unusually difficult to make. The financial planners at the Department of Defense face similar problems, and our estimates reflect similar uncertainties. Our objective is nevertheless clear. It is to manage the financing of the Vietnam conflict in such a way that, while providing full support to our forces, we minimize the financial risks to the Government and the taxpayer.

Senator PROXMIRE. Well, thank you very much, Mr. Anthony, for a noble effort. We certainly appreciate it.

Mr. Anthony, the reason that this committee is concerned about this, and certainly the reason I am concerned about it, is because the policies of your Department have such a decisive and substantial effect on our economy.

Last year, as you know, we had a very sharp increase in prices during the first 8 or 9 months, an unacceptable increase. Also, we had the highest increase rates we have had in 40 years, which were cruel and punishing.

Many of us feel that if we had had accurate, timely information we could have done one of two things: We could have either increased taxes to take the pressure off the economy or we could have cut spending or maybe both. We did not have that, and in your presentation, which, I think, is technically very competent, and, I am sure, completely sincere, it is hard for me to tell whether there was any real consideration given to the effect of, not of policy, but of the disclosure to the Congress and to the public of what the estimates of the Defense Department are just as soon as those estimates can be at all firm or reliable or even an improvement on the basis of the estimates that you have had before.

You see, what I am asking for is not the kind of thing which I think you had properly delineated, the changes in inventory policy, which are very interesting and, perhaps, very helpful to the economy, but whether or not there has been adequate consideration given to a change in disclosure policy, information policy, to the Congress.

Mr. ANTHONY. May I make two comments on this? First, and I think most important for your purposes of obtaining the best information you can possibly get for the future, is the fact that the problem was especially difficult during this period of an extremely rapid buildup, and we should have a much easier job of making forecasts in defense expenditures from here on than we have had previously. Therefore, this problem should not exist in the future as long as hostilities continue at approximately the planned present rate.

Chairman PROXMIRE. Let me interrupt you right at that point. Exactly because the situation was uncertain and was hard to determine, isn't this precisely the reason why the Congress should have been given more frequent estimates instead of waiting until we had gone home?

Mr. ANTHONY. I want to address that in just one moment. I do not want to leave what I have just said unfinished without saying: let us face it; there is going to be another problem in the phase down. On the buildup there was a problem. On the phase down there is going to be another one; the problems of estimating under those circumstances are also going to be difficult.

Now let me come back to the other part of your question. I tried to explain why the estimates of obligations from which expenditures—

Chairman PROXMIRE. You did a good job of explaining.

Mr. ANTHONY (continuing). Are derived are extremely difficult to forecast during a buildup phase.

I think the example of the \$549 million of military personnel costs which somebody thought was the right amount at one time, and which turned out to be only about a third of the right amount, is an indica-

tion not of anybody's error, but just of the difficulty involved in making forecasts at this phase.

I do not think that these difficulties in forecasting or in the publication of official revised figures actually prevented the people interested in the economy from making pretty good forecasts of what was going to happen. For example, I know—

Chairman PROXMIRE. That is right.

Let me interrupt you at that point to say this is the whole point. You see, these people were able to make pretty good estimates, but we never had confirmation from the official source. We had different Members of Congress and the economists making estimates. But the Defense Department, which is the source of the best information, refusing to make their own estimate, leaves us in the dark, and it means it is very hard for us to shape wise policy. It is hard enough to persuade Congress to either increase taxes or cut spending, and if we do not have the kind of hard information from the most reliable source it is almost impossible.

Mr. ANTHONY. Well, sir, I do not think it was a case of refusing to make up-to-date estimates. In our own internal estimates of what was going to happen in view of the speedup, and the implications of obligations already appropriated by the Congress, we went at it, I think, not essentially different from the way a lot of other people went at it. A favorite formula which turned out to be quite close as it happened, was to observe that in 1966 expenditures by quarters were roughly \$12, 13, 14, and 15 billion, and then to go on to say that in 1967 they will be \$16, 17, 18, and 19 billion. That adds up to \$70 billion, which is pretty close to the actual expenditures for 1967.

Well, that was one way of estimating, assuming a straight line continuation of the buildup, and it turned out to be not too bad.

Chairman PROXMIRE. Let me read you a quotation from a man I think is eminently qualified in this area, Senator John Stennis, chairman of the Preparedness Subcommittee of the Senate Armed Services Committee, who is going to be our leadoff witness tomorrow morning. He said on October 13, and I quote:

I do not make the assertion that we planned this war on a piecemeal basis lately. The facts establish in many cases this is all too true. It is certainly true in the area of funding. The requests of the Congress for the money needed to finance the war may be deferred until the last possible moment. For example, even with the requirements of escalation staring us in the face, Congress was told as late as July of last year that the fiscal year 1966 budget request covered all the months which were then foreseen to be needed by the military forces.

Let me repeat that:

For example, even with the requirements of escalation staring us in the face the Congress was told as late as July of last year that the fiscal year 1966 budget request covered all the funds which were then foreseen to be needed by the military forces.

It was not until Secretary McNamara returned from his trip to Vietnam that we were informed that a supplemental appropriation would be inevitable. Even so, despite an open invitation by Congress, Defense authorities then refused to present a realistic estimate of the actual requirements which had been generated as a result of hostilities. The matter was delayed until January of this year. We were then presented with a supplemental request for \$12.7 billion.

Now, I do appreciate the assurances that you are giving us again that you are firm and you have indicated in your statement that you are firm on your estimates for 1968. You do not think that they are going to increase very much. I want to ask you if you still feel that way in view of the statistics disclosed in the Economic Indicators, which are as follows: In February of 1966 the Department of Defense military \$4.2 billion; March, \$5.2 billion, that was last year.

Now, this year they have accelerated from \$4.2 billion in February to \$5.5 billion this year and in March to \$6.6 billion this year. This is between a 25- and 30-percent increase.

Now, perhaps this is just about what you would expect, but I want to make sure it is, and I want to know if the April expenditures are running at about the same level because, if there is anything at all in the picture which would cause you to modify or caution us on the possibility of an increase—a very well informed Senator said this yesterday, that he had good information that some 100,000 additional troops may go to Vietnam, and we do not want anything that is classified, of course, in this room, but we do want to have the best estimates you can possibly give us, because we do have a responsibility for advising the Congress on economic policy, and we cannot do it unless we get your information as firm as possible.

Mr. ANTHONY. Let me first go back to the early part of your comment and then discuss our current situation as I see it.

Chairman PROXMIRE. Right.

Mr. ANTHONY. I think Secretary McNamara made great efforts to explain to the Congress, beginning when he presented the budget in January or February 1966, the assumption on which it was based—the fact that should the situation change, then additional requirements would have to be submitted. Indeed, the statement he made several times—I think Senator Symington heard him make it—was something like “I don’t know whether this budget is too high or too low, but I know it is not exactly right.” He was trying to express at that time the uncertainties that existed.

Chairman PROXMIRE. When did he say he did not know it was too high or too low, roughly?

Mr. ANTHONY. Did he not say that before your committee some time either in January or February, Senator Symington?

Chairman PROXMIRE. He said he thought it was too low—

Mr. ANTHONY. Yes, quite possibly.

Chairman PROXMIRE. Too high, rather.

Mr. ANTHONY. Certainly. It could have been too high. By hindsight we are now looking at a situation in which the conflict did, in fact, continue. This is 13 or 14 months after we were talking. It was conceivable that the conflict would have ceased.

Chairman PROXMIRE. Well, even if the conflict ceased May 1, even if it ceases before the June 30 deadline, you still have a terrific underestimate. It is almost a joke that you missed by 100 percent, and this is not a department that has not been meticulous about its estimates and about its figures. You have a fine and hard-earned reputation for it. That is the thing that is very, very hard for me to understand—how a department headed by Secretary McNamara, who is so very careful to do his best to get information as precise as possible, missed by such

a fantastic amount and then said that, according to you, he did not know if he was not overestimating.

MR. ANTHONY. I think we are talking about different Mays. You are thinking about May 1967. If, in May 1966, hostilities had ceased, this budget would have been too high.

Chairman PROXMIRE. Yes. I thought you were making the assumption though that the war would end on June 30, 1967, end of the fiscal year.

MR. ANTHONY. For the purpose of formulating the budget.

Chairman PROXMIRE. That is right. Even if it does end before that time you are still way low in your estimate.

MR. ANTHONY. Looking at the situation in April 1967 we know that the estimate made in January 1966 was too low. But looking at the situation in January, February, and in the spring of 1966, it certainly could have turned out to be too high. If hostilities had terminated at that time, it would have been too high.

I now find the reference on the Secretary's statement I alluded to earlier. On February 23, 1966 before the Joint Senate Armed Services and Appropriations Committees, he said:

"I don't want to mislead you into thinking that I believe we have estimated them"—that is, the budget request—"accurately. We have either overestimated or underestimated, but we have made the best estimate we can."

Chairman PROXMIRE. My time is up.

Senator Jordan?

MR. ANTHONY. Mr. Chairman, I did not address the latter part of your question.

Chairman PROXMIRE. Is that all right, Senator Jordan?

Senator JORDAN. Yes, please do.

MR. ANTHONY. The situation currently is as follows: March expenditures are in. At \$6.7 billion they are a little higher than I thought they were going to be.

Chairman PROXMIRE. Give us a little better understanding of what you mean by "little." What did you estimate for that?

MR. ANTHONY. Well, I thought we would be closer to \$6.4 billion.

Chairman PROXMIRE. And they are \$7.7 billion you say?

MR. ANTHONY. \$6.7 billion.

Again the \$6.4 billion estimate was my personal opinion; all of these estimates are personal opinions. We have been trying to figure out whether expenditures in the past few months indicate a trend. We are not sure that they do. In March, as it happens, there were three pay-days instead of two as there are in the average month. There were 23 working days, about the most working days you can have in a month, as compared with 21 in the average month. All of these things tend to make me think March is a little higher primarily for abnormal reasons than suggesting any substantial upward trend. However, March being high, the third quarter, therefore, is a little higher than I thought.

We still may come out to \$68 billion for 1967. I think it may still be possible—it is a little tight, though. I do not think the difference is going to be very much, and it may not be any. In order to come to \$68 billion for the year, we have to have \$17.4 for the fourth quarter. This is still higher than the second quarter. It is a little lower than the

present third quarter. All of this means the second quarter was lower than we thought it was going to be, and the third quarter was higher. There probably was some shifting between quarters which tended to distort the figures.

So my general answer to your question is that we are not changing our forecast of \$68.0 billion now, but we are watching this very, very carefully, and we may be led to change it somewhat—by \$500 million to \$1 billion, something of that order, I would say.

Chairman PROXMIRE. Senator Jordan?

Senator JORDAN. Thank you.

Mr. Anthony, the 1967 budget request was prepared on the assumption, as you have stated, that the war—the hostilities—would cease by June 30, 1967. The chairman has gone into some of the vast discrepancies that appeared in that planning. Even if the war were to cease by June 30 of this year—tell me why—what was the reason for the change in policy. You say that “Our basic assumption for fiscal year 1968 was that the war would continue indefinitely at levels of activity indicated in our current projections”?

So you have changed from the assumption in the 1967 budget that the war would terminate at a time certain to one of indefinite duration.

Mr. ANTHONY. Yes.

This, incidentally, was an assumption never made during the Korean war. Each budget during the Korean war was based on the stated assumption that the war would terminate before the beginning of the next fiscal year.

I am sure you would agree one has to make some assumption. One does not know when the war is going to terminate, and in this very complicated, vast exercise of building a budget everybody has to work on the same set of ground rules.

In the budget for 1967, had we gone to the other assumption then, we would not only have had to estimate the speed of the buildup and the rate of the buildup, but also the point at which it would level off and continue thereafter, then we would have had to translate all of these physical things into monetary terms by the application of attrition rates and consumption rates based on the Korean experience. The end result would have been an extremely unsatisfactory set of figures because everything was so uncertain at that time.

So it seemed much preferable to make the assumption we did, one that did not require so much guessing far out into the future, make that assumption perfectly clear to everybody—and we certainly tried to make it clear at the time—and then recognize that, should hostilities continue or should activity rates increase, we would have to request more funds.

In 1968, as I have tried to indicate, we are in a much better position to make reasonably accurate estimates. We can see the end of the buildup. We have better attrition rate and consumption rate data. Consider, for example, attrition rates. In order to make an estimate of aircraft procurement requirements in the 1968 budget under the new assumption we have to estimate the losses of aircraft through the end of calendar year 1969. That is a long way off, and the farther out you extend your estimates the more “guessy” those estimates become.

These still are not going to be right, you know; even our current estimate of attrition rates are certainly not going to be exactly right, but it is a lot easier to make meaningful estimates now than it was a year ago.

I think that is essentially the difference.

Senator JORDAN. But are you not shifting from one extreme to another? In the first instance you planned on cessation of hostilities by June 30, 1967, and now you are planning that the war will go on indefinitely.

Mr. ANTHONY. I do not think it is quite right to say that in either case we are planning such and such a thing. We are—

Senator JORDAN. You are budgeting on that premise.

Mr. ANTHONY. We are building a budget on a certain assumption.

Senator JORDAN. Yes.

Mr. ANTHONY. I think really those are the only two ways you can build a budget. Those are essentially the two choices. You either build it on the assumption that hostilities will terminate at the end of the budget year or you build it on the assumption that they will go on indefinitely.

Senator JORDAN. When the Vietnam war does terminate, do you anticipate that the U.S. forces and defense spending will be reduced to pre-Vietnam levels?

Mr. ANTHONY. I think it is very premature to make any estimates of what will happen. Studies are going on. One cannot know in the actual world what period of time we are talking about. What expenditures will be reduced to is the level needed to support the Defense Establishment at that time.

That level will depend on our commitments at that time, force requirements to meet those commitments, and on the prices of those, taken altogether, which is an unforeseeable set of facts.

Senator JORDAN. Over how long a period of time do you anticipate the conversion to peace will occur? You talk about going from "hot base" to "cold base" levels, and how long a time do you anticipate that transition might take?

Mr. ANTHONY. I think it useful to split this period down into two parts. The first period is when hostilities have ceased but you are uncertain as to whether they have ceased for good. The length of this period is completely unpredictable.

Then the other period—and I think that it is this second period you are talking about—

Senator JORDAN. Yes.

Mr. ANTHONY (continuing). Is when we are convinced that they have ceased for good.

I think the Korean war indicates that the time required to get down to the peacetime level is 2 years or so. It is certainly not as short as 1 year, and it may be longer than 2 years. It is, say, approximately 2 years. If we work things right, we will be able to carry out, not an abrupt termination but a gradual phasing down.

Senator JORDAN. A gradual phasing down?

Mr. ANTHONY. Yes.

Senator JORDAN. Last January President Johnson called for a major coordinated effort to review our readiness for peace, and, as I

understand it—and you remarked about it in your statement today—the Chairman of the Council of Economic Advisers, Mr. Askley, is coordinating that program.

However, could you tell us on the basis of your own role what has been accomplished specifically to date?

Mr. ANTHONY. I think there are others more competent than I to talk about the total Government effort. But talking about the effort in the Defense Department, we are working out various sets of what we call scenarios, possible things that might happen when hostilities terminate.

I do not personally regard individual scenarios as very important, because there are so many different ways in which hostilities might terminate. But some specific activities which are part of this whole effort and which were going on much before this coordinated effort started are, I think, quite significant.

In the first place, we have a posthostilities plan; our 5-year defense program always has a year of peace assumed in it, and so we know at any moment of time what we are aiming for when hostilities cease.

In the second place we are working out policies, i.e., what our policies will be under various posthostilities circumstances. We are also getting people to understand these policies and to discuss them.

In the third place we are working out procedures—that is, ways of making certain that we can take quick action when the need for action arises.

Another very important part of this planning process is having accurate information. We have major efforts underway to get up-to-date information on our most important inventory items so we will not be in the dark as to what to do about those items when hostilities cease.

I think all of these things are important parts of the effort to make a smooth transition to the post-Vietnam situation.

Senator JORDAN. You remark that the pattern of spending is not absolutely stable, and this we know, and you said, "In the early 1960's we shifted away from the cost-plus-fixed-fee type of contract toward an incentive type, and there was a definite effect on expenditure patterns," when this was done.

This committee has been very much interested over the years in moving from cost plus to other types of procurement. Could you tell us for the record how fast that progress has been? What percent of our present purchasing is on an incentive or bid basis and what percent is still cost plus?

Mr. ANTHONY. I am sorry. I do not have those figures; I will be glad to put them in the record, but the increase has been dramatic over this period of time.

(The following information was later supplied for the record:)

In fiscal year 1961, 37 percent of our contracts were of the cost-plus-fixed-fee type, and 63 percent were fixed-price, cost-plus-incentive-fee, or some other incentive type. The cost-plus-fixed-fee type dropped to 32 percent in fiscal year 1962, to 21 percent in fiscal year 1963, to 12 percent in fiscal year 1964, and to 9 percent in fiscal year 1965. In fiscal year 1966, despite the pressures of the buildup, the percentage was still only 10 percent.

Senator JORDAN. For that we commend you. This has been a major concern of this committee. Thank you.

Chairman PROXMIRE. Thank you, Senator Jordan.

Senator SYMINGTON?

Senator SYMINGTON. Thank you, Mr. Chairman.

Mr. Anthony, let me commend the way you present your position. But I would like to know how much you think this war is costing. Prior to the last appearance of Secretary McNamara I asked the staff of the Senate Appropriations Committee about the cost of the war. They estimate around \$2.5 billion a month—total, \$30 billion.

I asked the Secretary of Defense how long he felt the cost of the war could continue on the basis of \$2.5 billion a month without affecting, perhaps in serious fashion, the American economy. His answer, as I remember it, was, first, he thought it was nearer \$2 billion a month than \$2.5 billion. Secondly, he felt the costs could continue forever.

I am interested in the cost of this war. It seems nobody has come up with the normal cost accounting you would have in a large industrial, or in other branches of Government.

You surprise me when you say, "At first glance defense expenditures may not seem to constitute a major factor in our economy." That is some statement.

At second glance, however, apparently you think it is. Have you been to Vietnam?

Mr. ANTHONY. No, sir.

Senator SYMINGTON. One goes around Cam Ranh and the other installations and watches the billions of dollars that are being shelled out for that type and character of construction. When you read the amount of money involved, to say it may not constitute a major factor in our economy, is hard to understand.

It is the largest single expenditure in our economy, is it not?

Mr. ANTHONY. Most certainly. I would not debate anything. My sentence is a lead-in to the paragraph which goes on to say that defense expenditures are, of course, very important; that is the main point I am trying to make.

Senator SYMINGTON. I have had longstanding differences with the Pentagon on this GNP ratio analysis.

You say, "Our expenditures related to Southeast Asia amounting to \$19.4 billion during the current year constitute only approximately 2½ percent of the gross national product."

Are you telling this committee that the cost of the war, under sound accounting principles, now amounts to only 2½ percent of the gross national product of the United States?

Mr. ANTHONY. As I have discussed with you before, Senator Symington, we do not have a cost accounting system for the Vietnam conflict. I think you and everyone agrees that one does not set up a cost accounting system for a war.

Senator SYMINGTON. I do not quite understand what you mean by that statement. Do you mean we do not have a system designed to find out what is the true cost of the war?

Mr. ANTHONY. We do not have an accounting system, a system of debits and credits that has a set of books called Southeast Asia in which we put as debits for all the amounts of money tagged with Southeast Asia.

Senator SYMINGTON. I know you only have single entry bookkeeping, without assets on one side and liabilities on the other. As the

chairman pointed out earlier, at times you have been pretty far off; but is there no place where you check how far off you are, or are not, when you estimate the actual cost of the war?

Mr. ANTHONY. No, sir, and I would be glad to expand on that a little bit if you find this an undesirable thing.

Let me explain what the figures that we have tried to put in the statement do mean. They really result from requests that you and others made last summer that we try to come up with an estimate of the cost of the war. Now, there were two essential approaches we could take to that. One is what is called an allocated cost approach in which we would try, for example, to include a part of Secretary McNamara's salary, and all of the other allocations associated with the costs. We decided that was not really the better approach and was not the one you were interested in.

Senator SYMINGTON. Could you let me interrupt there? I want to listen, but want to be sure I understand.

Cost consists of material, labor, and overhead. Overhead can be divided into variable and fixed. You can establish your variable overhead, and can take a percentage of fixed overhead. That being true, inasmuch as the heat is so much on the Congress about the heavy cost of the war, is it not possible to estimate material costs and variable overhead—labor cost is obvious. If you want to split part of your fixed overhead, fine.

But it seems to me the basic elements of cost especially when you are working on a resultant basis—not extrapolation—it disturbs me that here are three different estimates of the costs of this war: One from the Senate Appropriations Committee, \$30 billion a year. Another from the Secretary of Defense several months ago, closer to \$2 billion a month. Then you have a figure here of some \$19 billion.

I know the trials and tribulations of costing any product, but I do think that somewhere, sometime, somehow, the American people should know the cost of this war. We are not getting it in the Appropriations Committee, nor in the Armed Services Committee. You would say \$19 billion?

Mr. ANTHONY. Certainly I would, and I think my figures are not inconsistent with Secretary McNamara's because when he was talking, I am sure he was rounding to the \$2 billion a month. We are here using the same figures. His estimates of the cost of the war are the estimates my people work out.

Continuing my description of how we developed cost figures, I think I was saying that this allocated cost approach is not the figure you want. We do not, for example, see any great point in trying to depreciate the ships and other major equipment items that are involved, even if we could.

Instead, we went to an incremental cost approach. I think this is what you had in mind when you said labor, material, and variable overhead.

We have tried to estimate incremental costs associated with Southeast Asia. This cost is certainly greater than the cost, say, of the people that are in Southeast Asia, because our whole support establishment has expanded because of Southeast Asia.

Senator SYMINGTON. That is what I wanted to ask. As example, take the tremendous expansion on Guam, also the large expansion

on Okinawa, both incident to B-52 operations. Are they all in the \$19.1 billion figure?

Mr. ANTHONY. Yes, sir.

Senator SYMINGTON. Are the costs incident to the transferring of troops from Germany, retraining of pilots? Are such costs also in the \$19.1 billion figure?

Mr. ANTHONY. They are in there. They are intended to be in there. We do not build it up in that amount of detail, but they are in there as part of the operating costs, which is what you are now talking about.

What we did was to take the 1965 operating costs, adjust that for price changes that have occurred since 1965, net out other known changes in non-Southeast Asia programs, and say the remaining costs in succeeding years were Southeast Asia related. I think therefore, we are automatically picking up the kind of things that you mentioned even though our system does not go into Guam and split the costs on Guam between non-Southeast Asia costs and Southeast Asia costs. The system just plainly does not work in this way.

Senator SYMINGTON. These expenditures are what you are talking about?

Mr. ANTHONY. No, the figure of \$21.8 billion that I give you for 1968 is a cost figure.

Actually in the buildup phase many different types of figures float around because obligations, expenditures, and costs are three different concepts, quite different concepts, and in the buildup phase they are radically different numbers. In a level-off phase, they all are about the same. So when I say \$21.8 billion—if you will permit me to round it to \$22 billion—\$22 billion is really pretty close to obligations, expenditures, and costs for Southeast Asia.

Senator SYMINGTON. For the period of?

Mr. ANTHONY. One year.

Senator SYMINGTON. Ending next June 30?

Mr. ANTHONY. June 30, 1968. Our cost figure for fiscal year 1968 is \$21.8 billion. Our cost figure for fiscal year 1967 is \$19.5 billion. Our expenditure figure for fiscal year 1967 is \$19.4 billion.

Senator SYMINGTON. Then for the fiscal year 1968, starting next July 1 you estimate that the total cost of the war in Vietnam will be about \$22 billion.

Mr. ANTHONY. Incremental costs, yes.

Senator SYMINGTON. What does that word mean?

Mr. ANTHONY. The same as what you meant, I think, when you tried to define the term.

Maybe I am professorial in this, but I never would give a figure for the word "cost" without some kind of a modifier to it. The word "cost" is absolutely meaningless taken by itself. Here, I think we are both talking about incremental costs in the sense of the costs that are incurred for Southeast Asia that would not be incurred were there not Southeast Asia. Is that not the concept you have?

Senator SYMINGTON. I have one more question. The Secretary of Defense defends the cost of the Vietnamese war as not being punitive on the economy on the grounds it is not an increasing percentage of the gross national product.

Now, We have labor problems going on. It would appear there may be some major increases in costs, increases incident to labor demand and therefore very possibly increases in prices. That will increase the gross national product automatically, will it not?

Mr. ANTHONY. Yes, sir.

Senator SYMINGTON. But you still feel, regardless of the international position, that if the gross national product increases and the percentage of increased cost of the Defense Department does not increase in percentage of the GNP that figure in itself demonstrates it is not punitive to the economy; correct?

Mr. ANTHONY. I would prefer that economists, who are much more versed in this subject than I, talk about this.

My impression is that the effect on the economy depends heavily on the rapidity of an increase and not the absolute amount at any level. That is, the economy can adjust to any level; the difficult time, the time of strain, is when you are building up rapidly to a new level.

I should also say, Senator—I should have said earlier when I gave you the figure for 1968, that this figure was in terms of current prices. I did not try to build in the inflationary factors that you just mentioned.

Senator SYMINGTON. Do you think this philosophy would justify—and I ask this with great respect—claims on the part of some people in this country as well as in other countries, that we are promoting a war economy to maintain economic stability?

Mr. ANTHONY. Not at all, no, sir.

Senator SYMINGTON. Thank you.

Thank you, Mr. Chairman.

Chairman PROXMIRE. I would like to do my best, Mr. Anthony, to try to button up your estimates on the expenditures and the costs and the appropriations for the fiscal year 1968, and I go back to what you have said in your statement, quote: "Thus, barring an unexpected significant change in the level of activity in Vietnam, or a new contingency elsewhere in the world, the fiscal 1968 budget represents a statement of our total foreseeable defense needs for that year," and you do not modify it at all.

Now, this morning's reported escalation—this morning newscasts reported some escalation in Vietnam. There have been some who have said we are going to send 50,000 additional troops there. One distinguished Senator said yesterday 100,000 additional troops will go there. What are your assumptions here? Do you assume that there will be additional escalation, or do you assume there will be no additional escalation?

Mr. ANTHONY. We assume a moderate amount beyond the end of 1967, and I would like to be more specific.

Chairman PROXMIRE. Beyond the end of June 30, 1967.

Mr. ANTHONY. Yes. And I would like to be more specific about the word "moderate"—

Chairman PROXMIRE. Good.

Mr. ANTHONY. If I could.

We are assuming that the increase in manpower worldwide, which is, I think, the best way to measure the full impact of Vietnam will increase above the fiscal year 1965 base by 734,000 in June 1967, and by 811,000 in June 1968.

Chairman PROXMIRE. You are not giving the Vietnam personnel. You are giving the overall military.

Mr. ANTHONY. Which is a better way of measuring the budgetary impact, you see; it is better to look at the full picture. The difference between 734,000 and 811,000 is a measure of the increase expected in 1968.

Chairman PROXMIRE. Let me ask you, out of the sum of this—and I am not asking you to disclose anything—but supposing 50,000 of these additional men were in Vietnam. What effect would that have on the budget?

Mr. ANTHONY. I do not want to comment, I think, on any possible specific plans for Vietnam.

Chairman PROXMIRE. I am not asking that. I am asking you to tell me what effect it has if instead of having an additional man in the armed services here in this country he is in Vietnam. Does it make a substantial difference or not?

Mr. ANTHONY. Yes, it makes a difference. The cost of a man is between double and triple if he is in Vietnam rather than in this country.

Chairman PROXMIRE. Then on that basis, can you tell us how much your estimate would be changed if (a) there were 50,000 more troops in Vietnam and (b) there were 100,000 more troops, not asking you to disclose what the plans are and obviously you should not and you will not.

Mr. ANTHONY. I could not.

I cannot make an estimate on just that one factor. I would be glad to supply something for the record.

Chairman PROXMIRE. Do you want to supply it for the record?

Mr. ANTHONY. Yes.

Chairman PROXMIRE. Good, I would appreciate that. You cannot tell us or give us a general idea whether this is \$1 billion, \$2 billion, or \$3 billion, something of that kind, or whether it is much less than that.

Mr. ANTHONY. I would rather do a little calculating on that if I may, Mr. Chairman.

(The material referred to was subsequently submitted and follows:)

In fiscal year 1967 the incremental cost of Southeast Asia operations was about \$20 billion, and the average number of personnel deployed in that year was about 400,000. A division of one of the numbers into the other gives a quotient of \$50,000. The multiplication of \$50,000 by 50,000 gives \$2.5 billion, and by 100,000 gives \$5 billion. However, these results are not satisfactory estimates of the cost of any specific deployment plan. In order to make such an estimate, one must know a great deal about the specific proposal—the mix of troops, aircraft, and ships, and the planned activity levels.

Chairman PROXMIRE. Last Friday, two distinguished economists discussed the Vietnam impact here in Washington at a meeting at the Shoreham Hotel. Professor Smithies, whom you know, said that our strategy in Vietnam is not the same as it was during World War II and the Korean conflict. At the same meeting Professor Musgrave said the Defense Department should not announce planned defense expenditures for national security reasons.

My question is, do either of these observations influence the quality of information that the Congress is getting from the Defense Department?

Mr. ANTHONY. I have heard of Professor Musgrave's statement, and it really puts us over a barrel, does it not, because we are criticized either way.

No, I think the answer is that when we give an expenditure estimate, it is the best expenditure estimate that we can give, and I would rather give none at all than—

Chairman PROXMIRE. You do not feel, or do you feel, when crowded this morning to give us estimates, whenever this is going to happen that this is something you cannot give us accurately because it may somehow give information to the enemy as to what our plans are?

Mr. ANTHONY. You stated the question in such a way that it had nothing to do with any particular plan. You just said pick a number and make an estimate for us, and this I will try to do. The figures that I gave you in my statement were not figures dreamed up, you know, with a few hours work. There is a lot of work behind those figures, and I think the people involved in that activity should do that kind of work to carry out the request that you made.

Chairman PROXMIRE. From what you said earlier, you seemed to think you might be off \$500 million or \$1 billion in your estimates, but that is about it, and that there is nothing that you know of now in the picture that would constrain you to give a different estimate as of this morning—

Mr. ANTHONY. That is correct.

Chairman PROXMIRE. That was given last January.

Mr. ANTHONY. That is correct. I will not change the \$68 billion that was given in January. I am just saying that in all of these estimates you ought to allow some margin of error, and I would like at least a billion dollar margin.

Chairman PROXMIRE. You gave a number of reasons why it was difficult or impossible for the Secretary of Defense, in your judgment, to give us a much earlier or better estimate in 1966 for the 1967 year than he gave us.

I have—we have in our files in the committee a letter from the Director of the Budget Bureau, Mr. Schultze, who will be here this afternoon, telling us that in July they are going to give us the estimates at that time of expenditures. Is there any reason why in July your estimates would not be substantially more accurate than they would be in January or April? That is, are you not getting closer and closer, at that point, to the 1968 fiscal year so that you can make any adjustments for any errors and so forth that might have developed or any changes in strategy at that point have become public?

Mr. ANTHONY. Mr. Schultze has talked with us about this possibility, and we are surely going to try to give a figure in July—is it July, or is it August?

Chairman PROXMIRE. Mid-July, we hope.

Mr. ANTHONY. We will certainly do our best. The earlier we give a figure, the less certain it is going to be.

Chairman PROXMIRE. We want it so that the Congress can have a basis for judgment on appropriation bills before we act on most of them. So we need the answer in July.

Your last section where you deal with the deescalation prospects gives us very little specific information in the impact of deescalation. It does indicate these things, as I understand it. In the first place, it will not be as great as Korea because the effort in relationship to our economy is far less, far less, one-third or one-half as much, perhaps, is that correct? In other words, the deescalation in Korea for two reasons would have a greater, far greater, impact than deescalation in Vietnam, first because of the inventory policy which has been changed, and, second, because tragic and big as our effort is in Vietnam, it is of far smaller effort than Korea in relationship to our economy.

Mr. ANTHONY. The problem is a little more complicated than taking these percentages of the gross national product in the buildup phase in Korea, because in the phasedown in Korea we had two things going on at once. We had a phasedown from Korea, but then we also had a decision to expand the Military Establishment which, you see, dampened the phasedown from Korea. So the absolute drop in defense expenditures after the Korean situation was not as big as those increases during the buildup phase that I have indicated.

But, even allowing for that, you stated the impact would be less as a percentage of gross national product, and I think this is certainly so.

Chairman PROXMIRE. Why would this not be a fairly good basis for estimating the impact on the economy?

Mr. ANTHONY. It would. It is a rough basis.

Chairman PROXMIRE. Then in the second place you indicate that your inventory policy will modify that substantially.

Mr. ANTHONY. Yes. The timing. You see, what the inventory policy does is modify the timing of the phasedown, not as to the absolute amount.

Chairman PROXMIRE. You say some industries and regions are affected more than others, but you do not give us anything specific on it. Do you think you could later on? You say you are beginning this contribution to the President's estimate of the effect of the war on the economy, which is preliminary, of course, to the plans as to what to do about it. Certainly this committee would be very interested in that, and I think it is our duty to press hard to get that information so we can debate it and discuss it and arrive at our judgment on what the economic policy ought to be so that perhaps in 6 months from now you could come back and give us a more specific description of the impact of this (a) on industries, (b) on regions, and so forth, so we can see the effect of it.

Mr. ANTHONY. We will be glad to try it. Even though it is very hard to predict a phasedown for a region, one of the things we are examining—which I personally think has a lot of promise—is the hypothesis that the phasedown will be a mirror image of the buildup, accordingly, we will examine very carefully the buildup characteristics in a region and then say, "This is a good first approximation as to how it will go down the other side of the curve." Work like this is underway.

Chairman PROXMIRE. You have stated that you cannot take a simplistic view, and you have replied to Senator Symington in the same tenor that whereas the costs that you give in your statement of

Vietnam is \$21.8 billion, and the overall budget was \$73.1 billion, you say you cannot subtract \$21.8 billion from \$73.1 billion and come up with a \$51.3 billion figure.

Can you not try to arrive at some figure which would be—that we could latch onto that we could have some reliance on, or at least some range so we could be in a better position to evaluate this? It seems to me it is simple to say you cannot subtract the amount, that on this basis the incremental cost of Vietnam—or however you want to put it, and say you arrive at anything very useful. What can we do?

Mr. ANTHONY. You can look at the phasedown problem itself regardless of what the leveloff figure is.

You see the level-off figure will depend very much on what the actual date of hostility termination is, and that is completely unforeseeable.

For example, other things being equal, the level-off will keep going up year after year by the amount of wage and price increases. But other things never are equal because of other changes in our Defense Establishment. I think the economic impact problem stems mainly from the pattern of the phasedown, and that is the thing which we are working on.

Chairman PROXMIRE. Has the Secretary not been quite successful over the past few years in keeping down the cost of the Defense Establishment in spite of inflation and in spite of increased wages—that is, if you make the assumption, or if you assume, we did not get involved in Vietnam, or Vietnam had not gone on.

Mr. ANTHONY. Yes, sir.

Chairman PROXMIRE. Is it not true that from 1962 or 1963 on we have had a fairly stable Defense Department cost?

Mr. ANTHONY. This is true.

Chairman PROXMIRE. Absent Vietnam.

Mr. ANTHONY. This is correct—it has been stable. It has actually been decreasing a little bit in absolute terms and decreasing markedly as a percentage of the gross national product; yes.

Chairman PROXMIRE. You see, this is what I am basing my questioning on now.

If he has been able to do that, why can we not make the assumption that when the Vietnam situation is over that we can expect there will be—we may be fairly close to what we were then. Of course, we have to—we do not know what is going to happen on such things as the anti-missile-missile deployment, that kind of thing, but if we do not have that kind of a big strategic cost, is there anything wrong with assuming that we might be able to level off at \$50 billion to \$55 billion?

Mr. ANTHONY. Neglecting changing prices, in constant prices or in actual—

Chairman PROXMIRE. I say the Secretary has taken pride, and I think justifiable pride, in being able to keep the cost down in spite of a steady inflation.

Mr. ANTHONY. I do not think—I think that could be true.

Chairman PROXMIRE. All right, in stable prices. Assuming the 1967 prices.

Mr. ANTHONY. You mention, of course, one phenomenon the anti-ballistic missile—just one, which would make a tremendous difference in the whole budget.

Chairman PROXMIRE. Yes.

Mr. ANTHONY. In terms of stable prices, it would seem to me that roughly what you say would be so, but it is a very complicated thing. Retired pay, you know, just goes up \$200 million a year no matter what you do today. These are obligations already on the books, so this phenomenon steps the budget figure up and up and up.

Chairman PROXMIRE. Thank you, Senator Jordan?

Senator JORDAN. Thank you, Mr. Chairman.

Mr. Anthony, you go to some length to compare this war in South Vietnam budgetwise with the Korean war. You say the Department of Defense requested a total of \$164 billion for military functions for the 3 fiscal years 1951 through 1953; Congress appropriated \$150 billion, but the amount actually expended was \$102 billion.

You go on to state it took about 5 years to work the unexpended balance down to \$32 billion and that during the 4 fiscal years 1955 through 1958 no additional funds had to be appropriated for Army procurement.

The Army lived off excess funds appropriated during the war.

Do you anticipate there will be anything like that problem of phasing down when we get to cessation of hostilities in South Vietnam?

Mr. ANTHONY. Well, of course, there is going to be a problem.

Senator JORDAN. Yes...

Mr. ANTHONY. There are, of course, going to be some surpluses simply because we are not perfect. We have these tremendously long pipelines that we have to turn into inventories, but we hope and confidently expect that the problems will be much less than they were in Korea, simply because of the techniques we have tried to use in this situation.

Senator JORDAN. You have better programing, better machinery for keeping track of the expenditures in the budget and so forth.

Mr. ANTHONY. Most important, we have much better knowledge of what our inventories are and what we need to order to keep our inventories up to the level they should be. We have much better knowledge than we had during the Korean conflict and much more careful control.

Part of the budgetary process that we are using involves trying to justify each item in the budget in exactly the same detail as we would in peacetime. With that as a base, you have a much better way of maintaining control, always recognizing the uncertainties that are bound to be present in hostilities.

Senator JORDAN. What special provision is there in your budgeting procedure that would take care of another hot spot developing? Suppose Korea broke out? What provision have you made in your budget to take care of another "hot" war?

Mr. ANTHONY. The budget itself does not provide for that contingency. We, therefore, would require more funds should that develop.

Senator JORDAN. You would be right up here with a supplemental to take care of any situation that might arise.

Mr. ANTHONY. Either a supplemental or use section 3732 of the Revised Statutes, which gives us authority to spend money without appropriation in such an emergency.

Senator JORDAN. But there is no such item in your budget. You would have to make up—such extra expenses you are put to would have to be made up in an extra appropriation that would be sent up.

Mr. ANTHONY. That is correct.

Senator JORDAN. Thank you.

Chairman PROXMIRE. Thank you, Senator Jordan.

Senator Symington?

Senator SYMINGTON. Thank you.

Mr. Anthony, you say it costs 2 to 3 times as much to have a soldier in Vietnam than in this country.

Mr. ANTHONY. Yes, roughly.

Senator SYMINGTON. How much does it cost to have a soldier in this country?

Mr. ANTHONY. Well, I am giving you very rough orders of magnitude figures.

Senator SYMINGTON. Yes.

Mr. ANTHONY. Let us say \$10,000.

Senator SYMINGTON. \$10,000?

Mr. ANTHONY. \$25,000 to \$30,000 for a man in Vietnam per year.

Senator SYMINGTON. If you averaged \$25,000 in Vietnam and multiply that by 50,000, would you not have a figure the chairman asked for.

Mr. ANTHONY. It might be a good first approximation.

Chairman PROXMIRE. Thank you, Senator Symington. You are very helpful.

Senator SYMINGTON. I am trying to get to the costs.

Mr. ANTHONY. Thank you.

Senator SYMINGTON. I know I will slip a digit, so somebody figure that out.

Mr. ANTHONY. That is what I was afraid of, too.

Chairman PROXMIRE. \$20,000 times—

Senator SYMINGTON. \$25,000 times 50,000.

Mr. ANTHONY. My figure expert will do it.

Senator SYMINGTON. That would be about \$1.25 billion, would it not?

Mr. ANTHONY. That is what my expert says.

Chairman PROXMIRE. Very good.

Senator SYMINGTON. If General Westmoreland in New York today asks for 100,000 more men, what he would really be asking for money-wise would be about \$2.5 billion.

Mr. ANTHONY. If we went by that.

Senator SYMINGTON. If we went by that stand. You are the one who sees the costs.

Mr. ANTHONY. I try to do the analysis in a little more sophisticated manner than that.

Senator SYMINGTON. I just want to get in my mind what the additional cost of 100,000 men would be.

Chairman PROXMIRE. Would the Senator yield on that? I want to be sure of the assumptions on which you made that calculation. You calculated a difference between a man here and Vietnam and multiplied that by 100,000 or you calculated the total cost in Vietnam over that?

Mr. ANTHONY. Total cost.

Senator SYMINGTON. Do you add to that, say, the cost of the airplane that he may go down in?

Mr. ANTHONY. That is what I have not done.

Senator SYMINGTON. So it would be a figure considerably more than \$2.5 billion, if you put it all in.

Mr. ANTHONY. More. These are the operating costs.

Senator SYMINGTON. Have you past figures you could utilize to figure the total cost that you could supply for the record?

Mr. ANTHONY. I would be glad to try to supply them.

Senator SYMINGTON. Would you do that?

Mr. ANTHONY. Yes.

(The figure requested above is included in material previously supplied by the Department which appears on p. 21.)

Senator SYMINGTON. Incidentally, I do not want to disagree ever with my able chairman, but anyone who thinks attacking a couple of military airfields is escalation, if that is what was referred to, I cannot agree. I cannot see why, we do not attack more meaningful targets.

There would be a great deal less escalation with a great deal more success if one attacked more meaningful targets instead of another 100,000 ground troops in Vietnam; which, if we do, most certainly will be escalation.

Chairman PROXMIER. If the Senator will yield, what I was referring to was simply the phrase used, as I understand it, by the newspaper reports this morning. I certainly was not making any assumption that this is or is not escalation.

Senator SYMINGTON. Mr. Secretary, everybody goes on what you might call the "kick" of—well, it is a lot more, but it really is not a lot more because it is a lesser percentage, or no greater percentage, of gross national product.

Now, I have an article here by Dr. Robert Stevens from the Harvard Business Review. He was formerly senior economist at Standard Oil of New Jersey, so he has practical experience, including a lot of international experience due to their foreign holdings; and (b) he is now a professor of international business at Indiana University. So he seems to have had a career on both the practical and theoretical sides.

One paragraph in an article he wrote in the Business Review last December says:

Today when our economy still remains unrivaled in the world, if the popular premise that economic strength always confers financial strength were sound, then people might still think it natural for the United States to be running an international payments surplus provided various frictions and temporary obstacles to its achievements could be removed. But the simple argument from basic economic strength to continuous financial strength is not valid.

It seems to me that is what you are consistently doing. You say because we have the economic strength expressed by our unprecedented gross national product, our fiscal and monetary positions are automatically sound.

Without getting too deep into a subject that has interested me for some years, we are now to the point where we have less than 10 percent of the free nonmonetized gold necessary to pay off those abroad who could call us, who own the paper dollars we have promised to redeem in gold through their central banks.

Of course, as our gross national product grows partially because of increases in labor costs and prices, that automatically makes us less competitive in foreign markets.

I wonder if this constant reliance, in all statements out of Defense that we do not have to worry too much about these growing costs, waste—I think we will all agree that war is waste, because it is no longer a percentage of our gross national product. I just wonder at times whether that is sound economic thinking.

Mr. ANTHONY. I think all I have said is that the \$22 billion of cost is a cost that our economy easily can handle. Now, handling it properly does imply proper monetary policies, proper fiscal policies. It does not automatically handle itself. But it is a manageable problem, and the fact is we have managed it without price controls and wage controls.

Senator SYMINGTON. So you feel it is a sound approach, as you say on the first page of your statement, that "8.9 percent of our gross national product in fiscal 1967," which you say, "is exactly the same percentage as that in 1962."

Mr. ANTHONY. A sound approach in what sense, sir?

Senator SYMINGTON. To gage the problem of our defense expenditures on the basis of our gross national product.

Mr. ANTHONY. No, sir. I think, as I said earlier, it is one way to look at it. I think a more important thing is the rapidity of buildup, that is the thing that creates more stresses on the economy. You brought in another factor which I think is also very important, the balance-of-payments problem, which, of course, is made more difficult by this situation.

Senator SYMINGTON. Well, it is a fact that we have financed world trade for 18 years by printing paper gold. I am not saying that is wrong and hope we arrive fairly soon at some agreement as to what the additional currency development should be.

At the same time we are financing this trade abroad not only of our own country, but all other developed countries, spend considerably more of our gross national product in percentage for defense than does any other developed country.

Do you know about that?

Mr. ANTHONY. Spend it for what?

Senator SYMINGTON. For military.

Mr. ANTHONY. We spend—

Senator SYMINGTON. More of a percentage of our gross national product for military than any other developed country in the world.

Mr. ANTHONY. No, we do not spend as much as the Soviet, by quite a lot.

Senator SYMINGTON. Well, I am glad to be corrected.

Mr. ANTHONY. I cannot give you exact figures. The job of trying to translate Soviet figures into what the actual facts are is extremely difficult. But it is my impression that any way you look at those figures the percentage of gross national product spent on defense is considerably higher in the Soviet Union than in the United States.

Senator SYMINGTON. My statement would still be correct, however, if I said the free world, is the correct?

Mr. ANTHONY. I cannot say for sure, but I think that is substantially correct.

Senator SYMINGTON. Those are the figures I saw.

Mr. ANTHONY. I think so. If there is an exception, I will correct it for the record.

Senator SYMINGTON. Thank you.

Thank you, Mr. Chairman.

Chairman PROXMIRE. I would just like to say—I am just about through—I would like to say that I appreciated very much what Senator Symington has emphasized. I think there probably is an additional observation that ought to be made and that is that this Vietnam war situation is contributing most adversely to our balance-of-payments problems. The President indicated that, as I recall, in his economic message. Not only most adversely but so badly that it is conceivable that our payments would be in balance even on the liquidity basis if it were not for Vietnam, \$800 million, as I understood it, the loss directly.

There is an indirect balance-of-payments loss, I think, of a billion dollars because of increased imports and so forth because of the Vietnam situation, and I think this is certainly another most important consideration along with the budgetary and inflation costs.

Mr. ANTHONY. Yes, sir.

Senator SYMINGTON. Will the Chairman yield?

I associate myself with his remarks. Inasmuch as the agreement we have with the Germans incident to the purchase of material has either fallen apart or at least is not progressing as originally planned, the statement of the Chair in that connection is even more pertinent. This will naturally affect the balance of payments to the degree it is not carried out.

Chairman PROXMIRE. Senator Jordan?

Senator JORDAN. I just have one question, Mr. Chairman.

Have any studies been made, Mr. Anthony, relative to where these dollars are spent; to give you an example, for each dollar spent in the hot war in South Vietnam, how much is required stateside to back up that expenditure in the civilian economy? In way of making munitions, airplanes, helicopters, and whatnot.

Mr. ANTHONY. If I understand you correctly, almost all of it is spent stateside. We take very drastic steps to spend as little as we can in foreign countries for the reasons Senator Symington was giving.

Senator JORDAN. Yes. The losses and the costs are actually overseas, but the spending is stateside.

Mr. ANTHONY. That is correct.

Senator JORDAN. But for the military aspect of the spending, how much is the civilian counterpart to back it up?

Mr. ANTHONY. Of the \$22 billion of costs that we are talking about, I should think somewhat more than \$20 billion actually ends up being spent in the United States. Military people send their pay back to the United States, where their families spend the bigger part of it and so on.

Senator JORDAN. This is a total cost then that you are giving us.

Mr. ANTHONY. The incremental costs, yes.

Senator JORDAN. The incremental costs?

Mr. ANTHONY. Yes, sir.

I may not be understanding your question properly, but I think you are asking—

Senator JORDAN. I am trying to find out if there are costs over and above the \$21.9 billion that you have given us here that are in the civilian industrial complex of the United States—

Mr. ANTHONY. No, sir.

Senator JORDAN (continuing). That are not calculated in this figure.

Mr. ANTHONY. No, sir. This is not the spending in Vietnam.

Senator JORDAN. No.

Mr. ANTHONY. This is the spending on account of Vietnam.

Senator JORDAN. As a result of Vietnam.

Mr. ANTHONY. As a result of Vietnam, and almost all of it, as I say, winds up in the United States.

Senator JORDAN. And it is a complete cost without any indirect cost being absorbed in some other fashion.

Mr. ANTHONY. No depreciation, no indirect overhead, as Senator Symington said. It is the direct incremental costs. It is my rough guess of the costs, because, as I explained to him, we do not keep books on the war.

Senator JORDAN. Thank you.

Chairman PROXMIER. Well, thank you very much—I cannot say Doctor, and though I—Mr. Anthony—yes, of course I can say Dr. Anthony—Dr. Anthony was a radio character some years ago—but you did a superlative job this morning, not only in your statement but in your responsive answers to our questions, and I must say I was very much impressed and very much enlightened.

Our witness this afternoon will be the Budget Director, Mr. Schultze, at 2 o'clock this afternoon.

(Whereupon, at 12 o'clock noon, the committee recessed, to reconvene at 2 p.m. the same day.)

AFTERNOON SESSION

Chairman PROXMIER. The committee will come to order.

Our witness this afternoon is Charles L. Schultze, the Director of the Bureau of the Budget, a man who is an old friend of the committee, and a man of great ability.

We are very happy to have you here for obvious reasons, but especially on this particular subject, which is the impact of the Vietnam war costs on the economy, and equally important, as you emphasize in your statement, the effect of deescalation or negotiations, which it seems to me is peculiarly and specially a problem for the Budget Bureau and for the Director of the Budget Bureau. And I know you can give us some extremely helpful testimony. Your statement is very good.

You may proceed in any way you wish, Mr. Schultze.

STATEMENT OF HON. CHARLES L. SCHULTZE, DIRECTOR OF THE BUREAU OF THE BUDGET

Mr. SCHULTZE. Thank you, Mr. Chairman.

If you don't mind, I will read my statement. And if it is too long, let me know, and I will cut it short.

Chairman PROXMIRE. It does not seem to be a lengthy statement. You may proceed.

Mr. SCHULTZE. Your committee is considering both the economic impact of our military expenditures in Vietnam and the economic policies which will be appropriate when peace in Vietnam is achieved. I would like to address myself particularly to the second part of your inquiry—the economics of adjustment to a reduced level of defense expenditures.

As you are well aware, the President has established a task force under the chairmanship of Gardner Ackley, Chairman of the Council of Economic Advisers, to develop economic plans for the post-Vietnam period. That task force has begun its work but has not yet completed any significant part of it. I am, therefore, in no position to discuss this matter in terms of specific conclusions or recommendations. I would be pleased, however, to consider with you today the general aspects of the problem and the types of policies that have to be considered.

No one can predict when peace in Vietnam will come. Despite a long and honorable series of efforts to find peace, the war continues. But peace will come. And its coming will bring both opportunity and challenge. An opportunity to use the resources now devoted to military operations for peacetime purposes—in raising living standards and meeting important national needs. A challenge to adopt policies which will swiftly and smoothly transfer to those other uses the resources freed by the reduction in military demands.

A reduction in defense spending releases resources of manpower, materials, and capital. Other spending must take its place if those resources are not to remain idle, thereby triggering even further reductions in spending, employment, and income. There is, of course, wide room for argument among reasonable men as to precisely what form the additional spending should take—whether for private consumption or investment or for Federal, State, or local programs. But there should be no doubt in anyone's mind that appropriate fiscal and monetary policies can insure an adequate level of overall demand and accomplish the transfer of resources to whatever end uses we as a nation desire.

Let us turn for a moment to the magnitude of the problem.

Although the number of men and the amount of material devoted to the Vietnam operation is large, the military effort there has quite obviously caused far less economic disruption to the American economy than World War II, and substantially less than the Korean war. Defense purchases of goods and services have risen by some \$20 billion (at seasonally adjusted annual rates) since mid-1965, when the buildup in Vietnam started. While this figure seems large, it represents less than 3 percent of our gross national product. Defense outlays constituted 9 percent of GNP in fiscal 1962 and 1963. They fell to 9.3 percent of GNP in mid-1965. The additional spending for Vietnam has simply restored this percentage to its 1962-63 level.

In contrast to the present situation, defense purchases during the Korean period rose from 4½ percent of GNP in mid-1950 to 12½ percent in the first quarter of 1952. In that period the increase in defense purchases absorbed nearly one-half of the increase in GNP. In the present case, the rise in defense purchases has taken only one-fifth of the increase in national output. During the first year and a half

of the Korean buildup we added 2 million men to the Armed Forces, almost exactly equal to the total increase in the labor force over the same period. In the comparable Vietnam period, the size of the Armed Forces increase was only one-third as large as during Korea, while the rise in the labor force was 50 percent larger. The point is that the economic impact of the present conflict has not caused anywhere near the economic reorientation and disruption that the Korean conflict did—and Korea followed quickly on the World War II period of shortages in nondefense investment and consumer goods, while Vietnam follows a period of great prosperity and productivity.

I do not use these percentages to imply that our Vietnam operations are not costly—simply that they take only a small percentage of our total output. The figures do give us an overall measure of the economic impact of the war and suggest the magnitude of the opportunities available and the adjustment to be faced when the war ends. Our experience between 1961 and 1965 and in other, earlier, periods clearly demonstrates that the American economy does not need the stimulus of a war to reach and maintain economic growth and prosperity. Shared widely among our people the bounty of abundance should be a pleasure and not a problem.

The economic adjustment to reduced defense expenditures poses three sets of questions:

First, to what end uses do we wish to put the resources freed by lower military demands—this we might call the end-use problem.

Second, how can we assure that aggregate demand in the nonmilitary sectors of the economy rises in step with the reduction in military demands, so that from the viewpoint of the total economy there is no transition pause or recession—this we might call the overall transition problem.

Third, what policies do we adopt to ease the transition problem for those individual areas and regions which are heavily dependent for their employment and income on defense installations or defense contracts—this we might call the regional and area transition problem.

As I stated earlier, these are the questions which Chairman Ackley's task force is studying in detail. At this point I can only outline the general nature of the problems in each of these three areas.

Turning first to the end use to which we put the resources, freed from military use, coming to maturity in the next 5 years are 10 million children born between 1947 and 1952. This compares with 15 million reaching maturity in the past 5 years, 12 million in the 1957-62 period, and 10 million between 1952 and 1957.

These young people bring with them a potential expansion in demand for housing, automobiles, electrical appliances, furniture, and other household durables—for all the items which are involved in family formation. In turn, this prospective increase in consumer demand will in turn require an expansion of our industrial capacity. In addition, fundamental State and local services—water, sewage, police and fire protection, schools, and so on—must expand even to maintain existing levels of public services.

There are other major current needs in the public sector. We face an almost desperate need to increase the quality of our air and water. We feel obligated—even compelled—to improve the quality of educa-

tion for our children and to make sure that high-quality education is available to all. We see the need to improve and to rejuvenate urban areas and central cities, and to make major inroads on the problem of urban slums. We recognize the need to improve and modernize our transportation system. Our problem, indeed, will not be to search for possible uses of the resources which will become available when hostilities end, but to determine priorities among a host of pressing demands, private and public.

A conscious decision about the use of resources freed by a cessation of hostilities cannot be ducked. It does no good, for example, to say that this question is one which should be settled in the marketplace—that Government should leave the answer to private decisionmakers. When the demand for military goods and services is reduced, there is no automatic mechanism which provides for an increase in private spending to absorb the freed resources. Rather, the Federal Government must decide how to provide for an offsetting increase in demand—through tax reduction, through additional nonmilitary Federal spending, through easier monetary policies—or more likely, through some combination of all three. And our choice among these various instruments of economic policy will dictate the end uses to which the newly available resources are put. In short, the very steps we take to insure that the freed resources are utilized will determine how they are utilized.

The relative emphasis we place on tax reductions versus increases in the Federal budget, for example, quite obviously, will determine how the newly available resources will be split between the private and the public sector.

We cannot avoid making this choice, and to make it intelligently we need to assess the relative benefits which will accrue to the Nation from such alternative. And, in the case of tax reduction, we do not cut taxes in the abstract—we must choose some particular form of tax reduction. The kind of reductions which we adopt will determine, roughly at least, how the resources freed by lower military spending are divided between private consumption and private investment, and whether the additional private consumption is enjoyed by those with lower or higher incomes.

In similar vein, the more we rely on an easier monetary policy and lower interest rates to stimulate demand, the less we can employ tax reductions or expenditure increases. And since monetary policy tends to operate primarily on investment decisions, particularly housing investment, the relative emphasis we place on fiscal versus monetary policy will also help determine the specific uses of freed resources. Our options to choose between fiscal and monetary policy in a transition to lower defense expenditures are not, of course, unlimited. I do not believe a \$20 billion reduction in defense outlays, for example, could or should be met solely by changes in monetary policy, accompanied by neither tax reductions nor other budget expenditure increases. But, on a more restricted scale, there is some range of choice between fiscal and monetary policy in providing a transition to lower defense expenditures.

We turn now to the overall transition problem. The specific combination of policy actions which would be appropriate in a period

of declining defense outlays must be chosen not only in terms of the end uses we desire for the freed resources, but also in terms of the transition problems involved in transferring the resources. Our object is not merely to assure that these resources are ultimately absorbed in high-priority uses, but also to see that the transfer is made smoothly and without an intervening pause or recession.

This second objective poses a timing problem. The increase in overall demand in the civilian sector of the economy must roughly keep pace with the decrease in military demands. Yet, each of the policy instruments available to us—tax reductions of various kinds, expenditure increases, and monetary policy—differs from the other in two respects which are very important for this timing problem:

First, there are timelags between taking a policy action and the impact of that action on the economy—and these lags are not the same for each policy instrument. Cutting personal taxes, for example, will generally have a more immediate impact on aggregate economic activity than will a tax cut on corporate income.

Various types of Federal expenditures differ from one another in the magnitude and timing of the fiscal stimulus which they produce. Increased expenditures for direct Federal programs have a faster and more certain effect than an increase in grant-in-aid funds for State, local, or private projects. Most of the grant-in-aid programs require matching funds and these must be approved by State legislatures and city councils before the programs can be undertaken. Loan funds made available for college housing or hospital construction must be reviewed at several levels before construction begins. In many areas of most pressing need, in the fields of health, education, and manpower training, limitations of trained personnel or organizational barriers slow down the rate at which programs can be expanded. Yet many of these grant-in-aid programs may well have a significantly higher social priority than direct, fast-acting Federal programs.

And direct Federal programs, too, have a large variation in the timing of their impact. Federal expenditures for services or transfer payments to individuals often have a more immediate economic effect than increased procurement or construction outlays.

The second kind of transition question we have to take into account relates to our ability to forecast the magnitude or timing of the economic impact of various policy measures varies widely from one measure to another. We are more certain, for example, about the response of consumer purchases to a reduction in personal taxes than we are about the reaction of private investment to a reduction to corporate taxes. In the monetary area we are more certain of the response of housing construction to changes in credit availability than we are of changes in plant and equipment investment.

One important fact we do know. An expansion of investment in response to changes in taxes and monetary policy is quicker and more certain when the economy is prosperous and growing in a balanced fashion than when we are attempting to reverse a downturn. This fact underlies the importance of acting in a timely fashion to keep economic activity rising steadily. Not only is timely action desirable for its own sake, but it makes easier the task of deciding on the appropriate magnitude and composition of economic policy.

In summary, we are confronted with two sets of objectives: to direct the resources freed by a reduction in defense outlays toward the end uses we as a Nation desire, and to make the transition smoothly and quickly. The fact that some policy instruments are more uncertain in their effects and take longer to have an impact by no means implies that we need forgo their use. We should not, as a general rule, choose low priority Government programs over high priority ones, simply because the latter may be slower acting. We need not abandon tax cuts directed at increasing investment, because their magnitude or the timing of their impact is somewhat uncertain. Rather, we should aim for the use of freed resources in ways which yield the highest benefits from the Nation's standpoint. But we must, in developing and adopting a combination of policy instruments; take into account the timelags and uncertainties of various policies and make our plans accordingly.

There is one final point which is worth bearing in mind. We are dealing with a shift of resources amounting to perhaps \$15 or \$20 billion, with the shift most probably spread out over more than a year. But each year—year in and year out—the productive capacity of the American economy, measured in constant dollars, grows by some \$30 to \$35 billion. Each year, therefore, quite apart from any reduction in defense outlays, fiscal and monetary policy must aim at providing a \$30 to \$38 billion increase in demand to absorb this capacity, lest unemployment and excess capacity begin to mount. Over the past 6 years this task has been accomplished—not perfectly, of course, but all things considered, accomplished well.

Based on past experience, therefore, the economic transition to lower defense expenditures poses a problem well within our capacity to handle successfully.

Let us turn now to regional and area transition problems. There are some areas and labor markets which are currently much more heavily dependent than average for their employment and income upon defense procurement or defense installations. Even with overall fiscal and monetary policies which keep overall demand and production moving ahead steadily, there will be individual communities and areas facing particularly difficult transition problems.

An examination of recent data on the dispersion of Defense-generated employment may help to give some idea of the nature of the transition adjustment facing particular areas.

The Economic Impact Division of the Department of Defense has conducted surveys of employment generated by major defense contracts. In June 1966 this survey covered 2.4 million employees, representing about 3 percent of the total labor force. It included civilian employees at Defense installations. (Data for December 1966 are now being collected and tabulated but are not yet available.) Using this data, the Economic Impact Division analyzed the characteristics of the 292 labor market areas which had more than 500 defense-related workers, or in which the ratio of defense employment to the area labor force exceeded 5 percent.

Two of the more important aspects of the survey are shown in tables 1 and 2 below.

TABLE 1.—Ratio of defense employment to labor force by size of labor market, June 1966

Ratio of defense employment to labor force (percent)	Defense employment		Labor force size groups (000)							Number of areas
	Number (000)	Cumulative percent	Under 25	25 to 50	50 to 100	100 to 250	250 to 500	500 to 1,000	Over 1,000	
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
15 and over.....	207	8.7	15	4	4	2				25
12 to 14.9.....	124	13.9	7	5	3	1	1			17
9 to 11.9.....	427	31.8	14	4	4	5	7		1	31
6 to 8.9.....	236	41.6	10	12	6	3	3	1		35
3 to 5.9.....	690	70.5	20	12	13	10	4	5	4	68
Under 3.....	703	100.0	3	21	30	37	13	9	3	116
Total.....	2,387		69	58	56	58	28	15	8	292

TABLE 2.—Ratio of defense employment to labor force by type of employment, June 1966

Ratio of defense employment to labor force (percent)	Type of employment						Number of areas
	Military installations	Aircraft	Missile and space	Ammunition	Ships	Undistributed	
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
15 and over.....	16		2	1	4	2	25
12 to 14.9.....	13			2		2	17
9 to 11.9.....	14	4	2	3	1	7	31
6 to 8.9.....	23		1	3		8	35
3 to 5.9.....	33	5	4	2	1	23	68
Under 3.....	30	9	3	9	1	64	116
Total.....	129	18	12	20	7	106	292

Mr. SCHULTZE. The first table clearly shows that high ratios of defense employment to total labor force are primarily a characteristic of smaller labor market areas. On the 292 areas, 73 have ratios above 9 percent. Of these 73, all but 17 are found in areas with a total labor force of under 100,000 workers.

This, of course, is not surprising. Even a large defense production complex in a major metropolitan area is not likely to account for a significant proportion of the labor market.

One other point is clear from the first table. The 292 areas were selected because of their relatively large defense concentrations. Yet 60 percent of the defense-generated employment in these areas is found in labor markets where defense employment accounts for less than 6 percent of the labor force of that area.

Table 2 classifies defense-dependent areas by the type of employment involved. In constructing this table, all defense employment was assigned to the category which accounted for 50 percent or more of the total. And this does tend to reduce somewhat the effect of the table. But the main point, I think, is brought out. The central characteristic brought out by this table is the fact that high ratios of defense to total employment occur primarily because of the existence of a defense in-

stallation in small labor market areas. I am distinguishing defense installation for contracted defense procurement. High defense dependency in the smaller areas generally does not arise because of employment by defense contractors—but because of civilian employment in defense installations.

There are, I believe, three implications from this analysis for transition problems:

1. The number of areas and the number of employees in labor markets with a high ratio of defense to total employment is relatively modest. (The December 1966 data, however, will probably show a larger number of areas with high-defense dependency, since defense employment rose significantly between June and December.)

2. The problem of transition will be concentrated in a limited number of smaller labor market areas.

3. The impact on the localized transition problem of reductions in defense procurement will be much less than the impact of reductions in the size of the Armed Forces and the installations to which they are attached.

Let me turn now, if I may, to Federal programs to aid in the transition:

The economic dislocation which comes to a local area because of a reduction in defense-related employment is similar to the dislocation which occurs when shifts occur in private demand. Local unemployment and economic distress are equally severe whether they occur because of the closing of an automobile plant or the closing of a military base.

We are in a much better position today to cope with such problems than we were 5 or 6 years ago. Existing Federal programs have been strengthened and a number of new programs have been developed which are designed to aid in the economic development of communities. Although many of these programs were initially conceived as aid to chronically depressed areas, they have been used successfully and in a coordinated way to aid communities which had to reorient employment and production because a major industry ceased operation. South Bend, Ind.; and Lisbon Falls, Maine; are the primary examples of successful transitions following the shutdown of private firms. Presque Isle, Maine; Greenville, S.C.; Decatur, Ill.; York, Pa.; and Ogden, Utah; are examples of successful transitions following the closing of Government installations. In Presque Isle, Maine, for example, there were 1,200 military and 275 civilian jobs at the Air Force base before it was closed in 1961. Now there are more than 2,000 civilian jobs in their place.

In York, Pa., when the naval ordnance plant was sold, 95 percent of the civilian personnel elected to remain with the corporation which purchased it, and since the sale, civilian employment has increased by 60 percent.

In Ogden, Utah, the former naval supply depot, was declared excess; 636 acres and 149 buildings were sold to private industry for \$6.3 million. As a result, the Navy saves almost \$5 million per year, new jobs have been created, and the facility is back in productive use in the civilian sector of our economy.

Federal aid to these communities covers a wide range of programs—from income maintenance, employment information, and retraining, to low-cost loans and community planning.

The Department of Labor has been conducting demonstration projects to determine how best its resources can be used in meeting problems of industrial dislocation. This work should provide valuable guidance in the post-Vietnam period. The Manpower Training and Development Act has established numerous programs of training or retraining to aid either economic development or transition and its programs are available to skilled and professional employees. Additional assistance is provided by the use of surplus Federal property and equipment in these training programs.

In addition to employment and training programs, the Federal Government provides aid to economically distressed communities through the Economic Development Administration. Technical assistance and planning grants are available to communities for planning economic development. In addition, if the area has been designated a redevelopment area or economic development center, long-term, low-cost industrial and commercial loans are available to finance the development. Federal aid is also available for the construction of necessary development facilities—such as the access roads, water supply and sewers necessary for the operation of an industrial park. For example, a development association in Portsmouth, N.H., is now using EDA technical assistance to plan for the phasing out and redevelopment of the facilities of the Portsmouth Navy Shipyard, scheduled for closing in 1975. EDA technical assistance is being used to assist in the conversion of the Brooklyn Navy Yard into an industrial park.

Recent legislation now makes it possible to designate areas as redevelopment areas if the closing of a plant or military installation could be expected to make the area eligible for such designation within 3 years if assistance were not provided.

The Federal programs mentioned so far are available to any community experiencing local economic distress, whatever its cause. In addition, there are several Federal programs specifically associated with the Office of Economic Adjustment of the Defense Department which is concerned primarily with the closing of installations. The Department has established a central employee referral system which matches the information on displaced Defense employees with available job openings. A cooperative effort has also been developed to retrain displaced employees if their current skills cannot be utilized. The employee referral system attempts to keep employees in the same general geographic region but there are problems of relocation and housing. Limited travel and moving expenses are available and recently the Defense Department has been authorized to purchase employee housing if the loss can be expected to exceed 10 percent.

Federal programs are available to assist localities to adjust to future reductions in defense-related employment and these can be improved. Much also depends, however, on the initiative of State and local governments, private business, labor unions, and other interested groups to utilize the programs and to develop community plans for the transition period. The Federal Government can provide assistance but the people most directly affected can better analyze the potential of local resources,

both material and human. More than at any prior time, we are aware of the problems brought about by sharp changes in defense activity and are better prepared to manage the transition. However, it does take planning and cooperation from all sectors of our economy.

Thank you, Mr. Chairman.

Chairman PROXMIRE. Thank you, Mr. Schultze, for another very competent, interesting, and imaginative paper.

Mr. Schultze, next year, as you know, and as we all know, is an election year. The administration may be reluctant to come in for another tax increase next year. And Congress may be reluctant to demand the absolute data in time. Will we repeat last year's error? How can we work together to avoid this possible repetition?

Mr. SCHULTZE. How do I avoid stopping beating my wife?

I am trying to collect my thoughts to get at your point.

In the first place, we have, as you know, proposed a specific fiscal program, certain specific actions this year. And one of the obvious points is to take a look at what happens here—

Chairman PROXMIRE. What I am getting at, you know what happened last year, with prices rising and with the big deficit we had, causing interest rates to rise, and so forth. Many of us have been concerned about the reverse happening at the beginning of this year. Now, the indicators are pointing in the other direction. They suggest that we might have a tighter economy than was indicated in February and March.

Now, if the war is escalated, and if we do not pass a tax increase this year—and there is a big indication we may not—my question is, what can we do to be better prepared for next year so that we get the kind of information which will alert Congress, and at least make us familiar with the economic dangers we face from changes in Vietnam spending?

Mr. SCHULTZE. My difficulty with the question, Senator, is that we believe the economic situation will require a tax increase before next year. And this essentially is what we would believe is the first prerequisite of handling the situation.

Now, you ask me what happens if we do not get what we think is necessary to handle the economic situation, how can we better handle the situation next year. I am a little bit at a loss as to how to answer that. It seems to me that if our economic forecasts are correct, and if a tax increase is not passed, there will be even more reason to come in earlier next year with the same request.

Chairman PROXMIRE. Mr. Anthony appeared here this morning speaking for the Defense Department. And although there have been a lot of rumors and much talk about escalation in the Defense Department, he was standing firmly by the January estimate. This is mid-April, and there has not been any change in his view. He thinks it is unlikely that we would be spending more the rest of the year. To me it would seem that if we are going to put Congress in the mood for a tougher policy, either for a tax increase or for a spending reduction in a nondefense area, that the administration should recognize that warning of an escalation and make a frank statement of any increase in the defense spending beyond what was originally estimated.

Mr. SHULTZE. As you are, of course, aware, you and I exchanged letters with respect to making interim budget information cost available to the Congress.

Chairman PROXMIRE. Yes, that was very helpful, and I certainly commend you on your willingness to do that.

Mr. SCHULTZE. And on the basis of that letter we would be transmitting revised estimates for the fiscal 1968 budgetary outlook some time in late July, or at the worst very early August, at which time this would clearly be a factor to be taken into account.

Chairman PROXMIRE. So you are suggesting that one way we can work together is this more frequent estimate?

Mr. SCHULTZE. Yes, and we have so agreed in our exchange of correspondence.

Chairman PROXMIRE. Now, I am going to ask the question from the other standpoint. Vice President Humphrey indicated earlier this year that the ball game would be over in Vietnam this summer, meaning presumably we might be negotiating, de-escalating rapidly, and so on. Right now, not 6 months from now when the report might be made by the Ackley Committee, but right now, what plans do we have for conversion of our resources in the event that the war should end in the next month or two or three?

Mr. SCHULTZE. It seems to me that the plans we have for doing that will be those developed by the Ackley Committee. The committee itself would have to telescope its plans into a very short time period in order to do that in only 2 or 3 months.

Chairman PROXMIRE. But the Ackley Committee is just organizing, just getting going.

Mr. SCHULTZE. It is a little more than just organized. We are well into the way of taking a look at the problem. But none of the work has been completed. Clearly under the conditions you indicate that work would have to be telescoped substantially. But as you are aware, Senator, the Congress, on a number of occasions in the past, has shown that it can react responsibly and very quickly to administration requests for action if needed on a fiscal matter.

Chairman PROXMIRE. What kind of action can the President take? What are the dimensions of his actions? He has control over the budget in the event, first, that there is escalation, and he wishes to contract the nondefense spending, or second in the event that there is de-escalation and negotiations, he may want to expand the nondefense spending? What kind of discretion does he have? Obviously he exercised some last November when he announced a \$3 billion cut. Since then he has adjusted that. But how far could the President go either in cutting or in increasing spending?

Mr. SCHULTZE. I am not sure, Senator, that I could give you a specific number which would be a measure of his control. But as you have indicated, we did withhold and defer some \$5 billion in Federal contracts.

Chairman PROXMIRE. Five billion?

Mr. SCHULTZE. In contracts which have a \$3 billion expenditure impact. And of course the economic impact of Federal Government actions isn't just the result of expenditures. In relation to timing, there might be an effect when contracts are made, even though the expenditures may not take place for some time.

In summary, I would say that the President does have some significant but not very great ability to defer or postpone the awarding of contracts that would thereby have impact on expenditures.

Chairman PROXMIRE. Give us some figures. You said that he was able to defer \$5 billion in contracts that would have \$3 billion impact on spending. Obviously he didn't go as far as he could go, or maybe he did, I don't know. But it seems to me he could have gone farther, perhaps instead of \$3 billion he could have cut \$5 or \$7 billions of spending. One thing he could clearly have done—something that was done, as I understand it, in World War II—would have been just to have stopped all the nondefense public works, for instance. And this is around \$9 billion a year.

Mr. SCHULTZE. I don't know, Senator. As a matter of fact, during the time period in which we were interested in the deferrals, we literally stopped all new starts on water resource projects. There may have been one or two exceptions.

Chairman PROXMIRE. He is not confined to new starts, however?

Mr. SCHULTZE. He is not confined to new starts, although once you get beyond new starts it is more difficult. For example, look at what happened during Korea. We did come in with no new starts for a year, but we did not cut off all new construction, because you have on-going work for a contractor on the job. And once you go beyond new starts, you have to make a judgment with respect to how much you cut into that.

Chairman PROXMIRE. You see, what I am getting at is, there is a very real possibility, it seems to me, that you might need no congressional action at all to adjust in the first year or so, for this reason. Supposing negotiations in cease-fire come tomorrow? Mr. Anthony has testified to what Secretary McNamara announced some time ago, that there would be quite a gradual scaling down in procurement, because they would build up depleted inventories. Also I presume demobilization would not come like that, it would come over a period of several months, it would be some time before we would draw all of our people back from Vietnam. So that the effect on defense spending would be a gradual reduction of that \$15 to \$20 billion you are talking about. Now, can you put these two things together, then, to indicate the degree to which in your judgment the President could act to absorb, say, for several months at least, on the assumption that the economy is moving along about as it is now, to absorb this cutback by his own Comptroller of the Budget?

Mr. SCHULTZE. Staying for the moment within just the expenditures, it seems to me that there are three levels of action. First, without additional appropriations or authorizations, there is some limited amount by which the President could increase on-going programs without congressional action. Primarily these happen to be programs where there are certain unobligated balances, or where the funding is through the back door funding. This is true in the case of many of the housing programs and development programs where you have large authorizations that you can spend without the appropriation process. Without appropriations I cannot give you any magnitude, but there is some modest amount about which the President could expand the spending.

Chairman PROXMIRE. Give us some idea of the magnitude. What was done last year?

Mr. SCHULTZE. That was done the other way. You are talking about increase.

Chairman PROXMIRE. Could you increase to the same extent?

Mr. SCHULTZE. No, I do not think you could. Remember always, Senator, that you want to keep this—you want to do this in the context of (a), emphasizing high priority programs in the spending increase, and not simply increase for the sake of increase, and (b), taking account of bottleneck problems with respect to handling this from the administrative end and from the recipient end. There is a limit to how much you could expand in a short period of time in certain areas, even apart from local or funding problems. So taking everything into account, I would say the amounts of expandability, without any appropriation actions, is probably a good bit less than the amount we were ready to cut back, subject to the restraint I indicated subject to having some priority concepts in mind.

Chairman PROXMIRE. How about on the revenue side, does the President have any discretion whatsoever?

Mr. SCHULTZE. May I stay with the expenditures for a while?

Chairman PROXMIRE. Very good.

Mr. SCHULTZE. There is a modest amount that could be done in letting additional contracts speed up. In other words, you let additional contractors speed up your schedule of obligations. And I think this is probably altogether somewhat less than the amount of deferrals we were able to make.

Secondly, in this particular year the amount of appropriations the President is requesting for a number of programs in the major social areas is somewhat less than the authorization level. So it would be possible with a supplemental to increase expenditures significantly in a number of areas without having to come back for additional authorizations.

And then finally, there would be some programs where you would need to have both authorization and appropriation. In summary, there are the three levels I mentioned. First, some action could be taken without any congressional action.

Chairman PROXMIRE. And that is limited in your judgment to less than \$3 billion a year?

Mr. SCHULTZE. I would say less than \$5 billion.

Chairman PROXMIRE. \$3 billion for an expenditure basis.

Mr. SCHULTZE. I would say less than that, probably.

Secondly, there is another significant amount where a simple supplemental would do it, as opposed to having to come in for new authorization. There may be \$4 to \$5 billion there, representing the difference between specific authorizations and appropriations.

And then, finally, you have got to come in for additional authorizations.

Chairman PROXMIRE. My time is up. Let me try to complete. On the revenue side, it is my understanding that there is very little if any discretion that the President has.

Mr. SCHULTZE. That is right. Very little there.

Chairman PROXMIRE. He cannot recommend any speedup, or—does he have any discretion left now in slowing down corporation tax payments, for example, or any other aspect?

Mr. SCHULTZE. I believe there has been some in the area of relationship between collection and accruals. I would not be able to spell them out for you right now.

Chairman PROXMIRE. Would you see if you can find them and put them in the record, the amount involved here; several hundred million or maybe a billion dollars?

(The following material was later supplied:)

ANSWER TO SENATOR PROXMIRE'S QUESTION CONCERNING AUTHORITY OVER THE
TIMING OF TAX PAYMENTS

There is no administrative discretion as to the date by which estimated and final payments for individuals and corporations are made (or as to the timing of the withholding from individuals' wages and salaries).

The time for payment of excises and the time by which employers pay over social security and withheld individual income taxes is left to be established by Treasury regulations. The regulations issued in 1966 and 1967 providing for more rapid payment of these taxes were part of the continuing effort in recent years to improve the efficiency of tax collections and to put them on a more current basis. Such improvement was an objective of the Tax Adjustment Act of 1966 which instituted graduated income tax withholding and a step-up in the payment of corporate income taxes.

It is also the purpose of the recommendations in the President's Budget Message for two further accelerations in corporate payments to be effective for calendar year 1968. One of these proposals will increase the ratio of a corporation's estimated tax to its final tax liability from 70 to 80%. The other eliminates (over a 5 year period) the present exemption on the first \$100,000 of corporate tax liability from the requirement of payment on a current estimated basis. Each of these proposals will accelerate corporate tax payments by \$400 million in fiscal year 1968.

Congressman Curtis?

Representative CURTIS. Thank you, Mr. Chairman.

Mr. Schultze, I am a little bit disturbed that your entire paper is directed toward deescalation assumptions, while our hearings are on the economic effect of Vietnam spending. If last year was, regrettably, any indication, this year we may be facing something more along the lines of escalating. What would be the economic impact of an escalation?

I would have liked to have examined more thoroughly some of those deescalation assumptions. Accordingly to Mr. Anthony, our basic assumption for fiscal 1968 was that the war would continue indefinitely at levels of activity indicated in our current projects. So certainly as we look at this picture I am very much interested, and so is this committee, in deescalation.

Let me ask this: The administration has a task force under the chairmanship of Gardner Ackley to develop economic plans for the postwar period. But what about the effects of an indefinite period of continuing at the same level? Is there any task force directing its attention to that, or to possible escalation?

Mr. SCHULTZE. The Ackley committee itself is considering all sorts of different possibilities with respect to deescalation on military spending changes. So there would be a number of different options to be looked at.

Representative CURTIS. I mean, will they look at the other side of the coin?

Mr. SCHULTZE. It is not the charge of that committee.

Representative CURTIS. It is not?

Mr. SCHULTZE. It is not.

Representative CURTIS. That is what I wanted to be sure of.

Mr. SCHULTZE. The committee stems from the President's Economic Report, where he charged the Chairman of the Council of Economic Advisers with taking the lead in planning for post-Vietnam.

Representative CURTIS. I am of course pleased to see that emphasis. But in the light of what happened in fiscal 1967, and in calendar year 1966, and the failure to anticipate the levels of Vietnam spending, I would be impressed if we were to have a task force on that.

Is the Secretary of Labor or the Manpower Authorization Board geared into this task force?

Mr. SCHULTZE. Yes, sir.

Representative CURTIS. I was very disappointed earlier this year when I asked the Secretary of Labor about the Interagency Advisory Committee on Essential Activities and Critical Occupations. I found that they have not changed any assumptions since 1962 in the use of manpower. Now, I think one of the great problems we have here is matching military need for skills with the civilian skills.

Some of the work of the statistical section of the Department of Labor shows a correlation between military needs for skills and those existing in a civilian society of around 80 percent and over. You say in your statement, 2 million men were added in the Armed Forces in the first year and a half of the Korean war buildup, and you say that in the comparable Vietnam period the size of the Armed Forces increased only one-third as much.

Mr. SCHULTZE. About 750,000.

Representative CURTIS. But what is equally important from an economic standpoint, how great is the buildup of the munitions industry in the two periods?

Mr. SCHULTZE. The munitions industry—I am not sure I could tell you, but I could give you an indication of some defense procurement.

Representative CURTIS. By munitions industry I mean in effect that which has been increased as the result of the Vietnam war. And I have used the term "munitions industry" broadly to describe any such industry. For instance, the textile industry was affected quite a bit by last year's buildup in military procurement. I think this is an important figure, because the administration in my judgment has lost sight of the fact that to some degree our unemployment statistics—and they are very favorable, of course—reflect this kind of manpower authorization, the 750,000 additional in uniform, plus around a million and a half, probably, in the civilian munitions type area. But that is a rough guess.

Mr. SCHULTZE. Of course, Mr. Curtis, everybody is quite agreed that undoubtedly there is a significant increase due to Vietnam—as I indicated, 3 percentage points of our gross national product is going into Vietnam, and on the labor side this means large numbers of workers, both directly and indirectly. I figure, of course, that if we hadn't had Vietnam, then fiscal policies would have been proposed and adopted by the Congress, which we believe could have maintained the same level of prosperity without Vietnam.

Representative CURTIS. That may be. But that does not excuse not looking at the facts and getting the hard facts in for what they are.

Mr. SCHULTZE. We have not.

Representative CURTIS. Well, give me the figure, then, for how many are employed as a result of the Vietnam buildup in the munitions industry, if you have not neglected it.

Mr. SCHULTZE. Let me, for example, give you two numbers. No. 1, take a look—get one idea of the magnitude, at procurement expenditures. Now, I admit these cover both soft goods and hard goods. But hard goods account for more than three-quarters of it.

Representative CURTIS. Let me interrupt for this reason, Mr. Director. I am happy to get at this figure however we could. But the pertinent point right now is that apparently the administration has not developed the figure from this kind of data.

Mr. SCHULTZE. I have not had a chance yet, Mr. Curtis, I was about to.

Representative CURTIS. I mean in your prepared statement. I can get a lot of things on cross-examination. But as we have pointed out before in our interrogation, it is one thing for the administration to come forward with their prepared paper so that it discusses the things that are pertinent, and another thing to answer off the cuff when I interrogate on substantial things. There certainly are no estimates in your prepared statement of how much the employment has been increased as a result of Vietnam.

Now, proceed.

Mr. SCHULTZE. I was going to give—my paper was not essentially written around that point—I should not say my paper, my testimony.

As I indicated, you can get at this two ways. One is on the expenditure side for procurement. It was running about \$12 to \$14 billion a year prior to Vietnam. Now, the budget amount for 1968 is \$21.6 billion procurement. So the increase in procurement expenditures is in the \$7 billion plus area. That is No. 1.

Representative CURTIS. Is that procurement for goods and services?

Mr. SCHULTZE. No, just goods.

Now, again, part of the operation and maintenance account is also goods. Essentially we break it by procurement and by operation maintenance. But the big item is the procurement item.

Secondly, the Department of Defense—and I cited some of the figures from it—has made surveys of the defense employment covering the very largest part at least of defense procurement, and was unable to get all the way down to the subcontractors.

There is an article¹ which I would be glad to submit for the record that looks at those in any number of different ways, Mr. Curtis, in terms of where they were employed and how much. And I will submit that for the record.

(The article referred to has been included in the appendix to these hearings.)

Representative CURTIS. The pertinence of this, of course, is that when you deal in aggregates you don't get a complete picture. You

¹ "Economic Impact of Defense Programs," by Col. Vernon M. Buehler, U.S.A., Director of the Economic Impact Division of the Office of the Deputy Assistant Secretary of Defense (Economics), Office of the Assistant Secretary of Defense (Systems Analysis).

also get structural shifts, because we used different kinds of plants and different skills for the peacetime expenditures than we do for military, of course.

Mr. SCHULTZE. I quite agree. And one part of my paper was attempting to try, and very crudely, I admit, some measure of concentration by area of these.

Representative CURTIS. I am trying to do the breakdown, which I think is even more significant, by skills and for what purpose are they used, and which is for a certain period.

This was the problem after the Korean War to a large degree, the fact that we had to find jobs for a little less than a million people coming back. Certainly if you include the munitions industry, this number was well in the area of a couple of million.

Mr. SCHULTZE. As you indicated, Mr. Curtis—and I fully agree—the correlation between military and civilian skills is probably higher than most people think. And secondly, maintaining an overall level of economic demand is the most important requisite. A large number of problems are taken care of because both the plant and the manpower particularly is flexible.

Representative CURTIS. I read a statement by Secretary Fowler in which he assumed that the revenue, or the revenue estimates of the Treasury Department, would remain at the same level even if there were a deescalation of the war in Vietnam. If this is an accurate statement, he was making no allowance for the problems involved in this structural shift. I am talking about revenues now. And certainly one should allow for some loss of revenue as a result of this shifting. Don't you agree?

Mr. SCHULTZE. I would say very little loss, Mr. Curtis. I think that policies can be pursued which will get the transition done both quickly and without an economic pause.

Representative CURTIS. Let me suggest that if the administration has not done its homework yet in the area of what skills are under pressure, and what plant capacity is under pressure because of Vietnam, they are not going to be in a position of alleviating the problems in the structural shift area. Maybe you will do it geographically. But I am talking about the relation of skills and plant utilization.

Mr. SCHULTZE. As a matter of fact, the Department of Labor does have on the way a look at occupational requirements, occupational skills. That is one thing that Mr. Ackley will look into it.

Representative CURTIS. I see my time is up. I might add at this time that in spite of the testimony produced at our Subcommittee on Statistics last year, in which all witnesses said that we needed the job vacancy statistics and that they were feasible, the representatives of AFL-CIO and the Department of Labor are the ones who wouldn't move forward into developing this. I would regard this as a very essential statistic if we are going to do the job of shifting, whether it is an economy based on war or major shift in the economy itself.

Mr. SCHULTZE. I recall that in the last two budgets before this committee the Labor Department asked funds for this job vacancy survey. After two failures it was not included the third time, but we did ask for it twice.

Representative CURTIS. Yes, but if this administration would be really energetic in trying to get these statistics, and pointed it out to

the congressional leaders and the public, there is no question but that they could get the funds, particularly as they had it pretty solid and they probably could vote on it. I suggest that the AFL-CIO is opposed to it for their own reasons. And this has had a compelling effect on the administration and the Congress.

Mr. SCHULTZE. This is your particular version of it. All I am saying is that we tried hard to get it at least twice.

Chairman PROXMIRE. Congressman Moorhead?

Representative MOORHEAD. Thank you, Mr. Chairman.

Mr. Schultze, in your testimony you point out that our gross national product is increasing at an annual rate of \$30 billion to \$35 billion and you express concern that there be enough demand to absorb this capacity. What I would like to ask you, sir, is not what would happen in the case of sudden deescalation, as the chairman asked, or, in the case of escalation as Mr. Curtis asked, but suppose—and I hope I am wrong about this—suppose the war continues at roughly this present level, which is, what has been projected—what will be our economic situation concerning supply and demand?

Mr. SCHULTZE. Let me make a try at that at least.

Suppose for the moment, just as an assumption that will be responsive to your question that defense expenditures just leveled out at the 1968 level for another year or two. Just assume that a growing economy, to use the productivity and labor force increase, would need \$30 to \$35 billion worth of real growth. Also, if prices would rise, let's say, the one to one and a half percent a year that you had before Vietnam came along. Then the money value of GNP would have to rise about \$40 to \$45 billion a year. At the same time, with constant tax rates, that kind of economic growth will take in about \$7 to \$8 billion a year additional revenues each year. And it seems to me clearly that you would be faced under these circumstances with the question of what you do with that \$7 to \$8 billion of additional revenue, and whether, without additional increases in Federal expenditures or some tax changes, the economy will continue to move ahead, to eat up that \$40 or \$45 billion a year. What I am saying is that, by the very fact that our revenues are based on income, the fact that income must grow to keep the economy healthy, you cannot stand still, you have got to take action. You are automatically forced into making fiscal policy changes, tax reductions, or expenditure increases, under the kind of circumstances you postulate. And I would agree that you do not simply look at whether expenditures go up or down to find the solution to the problem.

Representative MOORHEAD. Do I understand you to say that with this steady continuation of the war we would have a very mild form of the same problem which would exist to a greater degree in the case of deescalation?

Mr. SCHULTZE. Barring a real upsurge in private demand which fortuitously would be able to take care of it—barring that—yes, sir.

Representative MOORHEAD. In your statement you talk about the 18 million children reaching maturity. And you report this as a good thing for home formation with all that this entails. It seems to me that not so long ago we used to read the same statistics and wring our hands and say, "How are we ever going to find jobs for

the 18 million men that are coming into the job corps?" What is the difference? What has changed the climate?

Mr. SCHULTZE. Nothing has changed the climate. I don't believe I was involved in the hand wringing. So from my point of view the climate has not changed. That is about the only answer I can give you.

Representative MOORHEAD. You consistently believe that this is an economic plus rather than—

Mr. SCHULTZE. Yes, sir. It does not mean that there are not some problems posed by it. But it seems to me that on the side of aggregate demand a large number of people coming into the family formation age bracket tends to be a plus. Now, usually several years before that these same people will have come into the labor force. You can absorb these young people coming in. I think we have shown it by the employment record of the last 6 years. Even if you want to go back before Vietnam, these people generally have been absorbed. The real problem is not large numbers, large numbers of people coming into the labor force are not the problem. The problem is the skills and education of these people, and whether or not there is some proportion of them who are not suited to take the kind of jobs that the economy offers. That is the problem. It is a problem of structure, not the aggregate number. I think we can handle the aggregate number even if they were three times this much. It is a question of education and skills and motivation, and everything else that is behind it, and what proportion of your youngsters coming in that do not have those skills or education or motivation. This, it seems to me, is the problem.

Representative MOORHEAD. Mr. Schultze, will the Ackley committee address itself to what you call the end-use problem?

Mr. SCHULTZE. Yes, sir, it will take a look at the end-use problem. It is impossible at this time to predict what conclusions the committee will reach concerning this problem. But, clearly, one of the major questions facing you is tax cuts versus expenditure increases. And what kind of tax cuts and what kind of expenditure increases. You just don't lay out a single plan and go blindly ahead, because events never quite match up to what you thought they were going to be. What you really need is to break the problem down to logical parts and look at what alternatives and options are open to you and be ready to move on those options as events occur. But you don't necessarily, it seems to me, in this kind of situation come up with a single rigid plan which will fit only one set of circumstances and plunge blindly ahead with that. You examine what your various circumstances might be and what kind of options you have under several kinds of circumstances. Examination of options—this is a major value of this study—instead of coming up with a single blueprint that you then put away and forget about.

Representative MOORHEAD. I am glad to hear you say that there will be options, because it seems to me that the basic decision of whether you place emphasis on the private sector or the public sector, or the mix in between, is one on which no committee of this form could possibly decide.

Mr. SCHULTZE. As a matter of fact, our constitutional and Government structure is obviously set up to insure that this should be a matter

for the President to propose and the Congress to adopt or reject or modify. I fully agree with you on that.

Representative MOORHEAD. Thank you, Mr. Chairman.

Chairman PROXMIRE. Senator Jordan?

Senator JORDAN. Thank you, Mr. Chairman.

Mr. Director, I appreciate the thoroughness of your statement. You have pretty well reiterated the testimony we had this morning from Mr. Anthony with respect to the comparison between this war in Vietnam and its effect on the gross national product, and that of the Korean war. Both of you have said that the cost of this war is generally conceded to be about 3 percent of the gross national product, whereas the Korean conflict got as high as 12½ percent in the first quarter of 1952. My first question is, are we talking about constant dollars here?

Mr. SCHULTZE. Let me first say that the Korean war did not cost 12½ percent. Rather, total defense expenditures were 12½ percent, of which Korea itself was a part, perhaps 6 or 7 percent. There are two numbers to compare: 12½ percent of GNP for total defense expenditure during the Korean war, and 9 percent for defense now. Only 3 percent of present GNP is attributable to Vietnam. Of the 12½ percent total defense expenditures at the time of the Korean conflict, 6 or 7 percent was attributable to Korea. That is No. 1.

No. 2, in terms of constant dollars the ratio would come out about the same, the reason being that since Korea prices both of the gross national product and of defense spending have risen by very roughly the same amount.

So while you are quite right in your implication that prices have gone up, they have gone up on the numerator and the denominator both, so it would not change the ratio very substantially. It might change it a little, but not very substantially.

Senator JORDAN. To get to a point that Congressman Curtis explored with you somewhat, you say that during the first year and a half of the Korean buildup we added 2 million men to the Armed Forces, and it was almost exactly equal to the total increase in the labor force over the same period. And we would say then that 2 million men went into the Armed Forces and 2 million men went into the labor force. In the comparable Vietnam period, the size of the Armed Forces increase was only one-third as large, and you have translated that into about 750,000.

Mr. SCHULTZE. Yes.

Senator JORDAN. And the rise in the labor force was 50 percent. And then there were about the same number of people that are involved in both of these.

Mr. SCHULTZE. Maybe it would be better if I actually used the numbers rather than the percentages I did.

Senator JORDAN. All right, 50 percent of more than 3 million.

Mr. SCHULTZE. Three million, that is correct.

Senator JORDAN. What significance do you attach to that, the fact that one man is in the Armed Forces in Korea, one man in the labor force, in the case of Vietnam, one man in the Armed Services, and four men in the labor force at that ratio?

Mr. SCHULTZE. Of major significance is the fact that in the time of Korea, as I am sure you recall, we were building up from very small

Armed Forces. Our capability to take on something like Korea was substantially less than our capability to take on Vietnam. Hence the addition to the size of the total Armed Forces was less, now simply because we were starting with a much larger number.

Senator JORDAN. Because we started from a lower point.

Mr. SCHULTZE. In Korea we started from a much lower point. And in addition, the age of the population is such that there was a larger number of people coming into the labor force during this past 18 months than during the Korean period.

Senator JORDAN. Then you go on to say here, Mr. Schultze, that our experience between 1961 and 1965 in another earlier period clearly demonstrates that the American economy does not need stimulus of a war to reach and maintain economic growth and prosperity. Do you think it clearly demonstrates our experience from 1961 to 1965?

Mr. SCHULTZE. I would say 1961 to 1965 clearly demonstrates it. I would also say that if we look at the reconversion after World War II, and other periods in our past history, it, too, demonstrates this. I particularly say that fiscal policy in terms of taxes and expenditures can clearly be used to maintain steady full employment—or close to it. You never have perfection.

Senator JORDAN. Not automatically.

Mr. SCHULTZE. It has got to be a policy action, yes.

Senator JORDAN. It has got to be a policy action.

You said some time during your statement that something like \$20 to \$25 billion was the amount of displacement, perhaps.

Mr. SCHULTZE. \$15 to \$20 billion.

Senator JORDAN. All right. And that gross national product is increasing \$30 to \$35 billion a year. This makes a substantial demand on reprogramming both in the public and private sectors in order to keep this transition moving smoothly and to take up that amount of slack, isn't that true?

Mr. SCHULTZE. That is correct, sir. I think what I was trying to get at was something like this. Every year, quite apart from the transition or deescalation, our capacity grows \$30 to \$35 billion. And you have got to find uses for those resources, so that the problem of \$15 to \$20 million more on top of the \$30 to \$35 billion is not something completely new. It is not the kind of a problem that we have never had to face before.

Senator JORDAN. No more than 50 percent of what we have to do this year.

Mr. SCHULTZE. Exactly.

Senator JORDAN. You have enumerated a number of areas where this money can be channeled in the way of improvement in transportation and in air and water pollution, and housing and so on.

Mr. SCHULTZE. Yes, sir.

Senator JORDAN. My question to you is, Has anyone in the administration made a study of the amount of economic and physical rehabilitation that will be required in Vietnam itself after the war?

Mr. SCHULTZE. In terms of a complete study, not to the best of my knowledge. I am not sure I can really respond fully to the question. Clearly this is one of the things that will have to be looked at—which the Ackley committee will have to look it. And at the moment I am not sure exactly what is available.

Senator JORDAN. Wouldn't you think it is important, as we look at the program, the domestic program of the United States, that we certainly take an inventory of the needs caused, if by nothing else, our own destruction in Vietnam?

Mr. SCHULTZE. I fully agree, Senator.

Senator JORDAN. To your knowledge, no one is directing their attention to that?

Mr. SCHULTZE. No, sir, I did not mean that. What I did say is that I don't know of a completed study of this. This does not mean that nobody is looking at it. And one of the major things that is going on now in Vietnam is reconstruction and pacification. I simply have no personal knowledge of the extent to which that has been extrapolated into the situation when you have peace. That does not mean it has not been done. But obviously one of the major things that our people are now concerned about in doing the planning in Vietnam is precisely the problem of pacification. And what you are talking about is an extension of that, and much more rapidly, because you won't have the military problem in front of you. All I mean is that I have not seen a particular piece of paper.

Senator JORDAN. It might be important if we could have an evaluation of what we calculate our effort would be in that particular area if and when hostilities cease.

Mr. SCHULTZE. All I am saying at the moment is, I have no personal knowledge of the status of those things.

Senator JORDAN. Will you make inquiries with such information as is available and supply it for the record?

Mr. SCHULTZE. I will make inquiries.

Senator JORDAN. Thank you.

(The following information was later submitted:)

REHABILITATION AND DEVELOPMENT IN VIETNAM AFTER THE WAR

AID has contracted with Development and Resources Corporation, headed by David Lilienthal, to examine the requirements for economic development and reconstruction in Vietnam after the war. Their preliminary report is scheduled for completion this June; at which time, agreement will be reached on priority areas of study and the number of U.S. technicians needed to carry out the planning effort. The Vietnamese government and private Vietnam citizens will participate in the joint planning group.

The Council of Economic Advisors is coordinating various executive branch studies on post-Vietnam planning related to U.S. economic policy. One such study addresses the U.S. balance of payments. Part of that study will be directed to the foreign aid and related costs to the U.S. of the rehabilitation and development of Vietnam.

Chairman PROXMIRE. Thank you, Senator Jordan. I think that is very interesting and we should pursue that. We are spending about \$1½ billion in Vietnam in economic aid according to Mr. Anthony this morning. And the President indicated in his Baltimore speech in 1965 that after the war was over we would expend about \$1 billion in the Mekong Valley area.

Mr. SCHULTZE. Economic aid to Vietnam is about 50-50, that is right.

Chairman PROXMIRE. So if we are now spending a half billion dollars in this Vietnam economic area, and we may later spend \$1 billion in the Mekong Valley over a period of years, that is overwhelmingly

dwarfed by the present military costs. So if we could stop the war in Vietnam the savings will greatly exceed the likely cost of reconstruction, at least on the basis of these figures.

Mr. SCHULTZE. Yes.

Chairman PROXMIRE. I would like to ask you whether the effect of the Vietnam war on the economy, whether it is jobs or prices or interest, would not be significant enough on the basis of your testimony to disturb the economy, provided we have the full information on it in advance and act prudently on the information. You testified that the President cannot do this himself, he is very limited, he is quite limited on the amount of spending that he can either cut down or expand. Therefore, it seems to me it is imperative that we get congressional cooperation on this.

Mr. SCHULTZE. I agree.

Chairman PROXMIRE. And you cannot get congressional cooperation very well if you don't give us the facts. The facts are just overwhelmingly significant. Now, is this a fair statement?

Mr. SCHULTZE. I will agree.

Chairman PROXMIRE. Now, looking at what happened after World War II—we have in that case a relatively economic catastrophic development—the Federal expenditures, Government purchases of goods and services in 1945 were \$82 billion. The following year, 1946, they were \$27 billion, less than one-third. Now, you were able to do that during a period when unemployment stayed below 4 percent—1.9 percent in 1945, 3.9 percent in 1947, 3.9 percent in 1948—and in 1948 we had a surplus of over \$8.5 billion. In 1954—1953-54—we were adjusting to the Korean war. We had a sharp cutback in military spending and in overall Government spending. And unemployment stayed down during every year except 1953 when it went to 5.6 percent, but in the other years it was well below 5 percent. What I am getting at is, how about the possibility of considering some debt retirement, in the event that we can secure negotiations and cease fire, and so forth, what are the possibilities in your judgment of being able to maintain a reasonable level of employment and cut back spending so that we can reduce the national debt?

Mr. SCHULTZE. Senator, I would go about that in a different way. I would ask myself what is the appropriate fiscal policy in combination with the monetary policy. The appropriate mission of fiscal and monetary policy is to make a smooth transition. To do that you have to take into account the strength of demand in the private sector. If you put all that together, and it comes out that the appropriate Government policy is to run, to pick a number out of the air, a \$5 billion deficit, then you want to think about a \$5 billion deficit. I would not start by saying, I want full employment and a smooth transition and debt retirement as an objective.

Chairman PROXMIRE. I did not start that way. I know no era of new economics should start that way, if you do you get zero in the classroom.

Mr. SCHULTZE. All I am saying is that I cannot answer that question except as a residual of the other question.

Chairman PROXMIRE. Let's get it as residual.

Mr. SCHULTZE. At this stage I am not prepared to answer it. That is precisely the kind of thing we are looking at in the Ackley com-

mittee. What is the magnitude of the fiscal policy requirements? And what monetary policy actions will be required.

Chairman PROXMIRE. I do not mean necessarily, as they say on "Meet the Press," the questions of the interrogators do not indicate their viewpoint necessarily. But we have had since 1961, as I say, great economic progress, lower and lower unemployment, enormous increases in corporate profits, which is very productive as far as Federal revenues are concerned. And yet we have had continuous deficits, and the prospect this year of a very large deficit indeed. And I am just wondering if we can assume that by following the kind of policies you suggest that we at the same time can expect possibly to reduce the debt. We did after every other war in our history until World War II. And we did after World War II for 2 years.

Mr. SCHULTZE. In the first place, you have got to ask yourself what budget you are talking about. For the purpose you talk about, what is appropriate is the deficit or surplus in the national income account budget. You might, for example, be running a surplus in the national income accounts budget and not run one in the administrative budget. Again, it just turns out that the way we handle our budget, if you happen to have a big deficit in your trust fund, then you could well afford to run a surplus, let's say, in your administrative budget to offset—

Chairman PROXMIRE. I understand that.

Mr. SCHULTZE. All I am getting at is, first, you are asking really for a numerical conclusion. And I am not prepared at the moment to be able to furnish one. And second, I think you have to talk about running a deficit or surplus in a particular budget before you talk about debt retirement. I just do not think one can make a specific conclusion about whatever would be possible or not possible until—

Chairman PROXMIRE. On the basis of the demographic figures that you gave us, it would seem to me that we may be moving into a period where we are likely to have to run into ever larger deficits. Here's why: You pointed out that a very large number of children are going to achieve maturity during the next few years. They are going to be workers, no longer consumers, they are going to be added to the work force. Under these circumstances, where they are producing and are workers, and you have more people able to produce, isn't it likely that you are going to have to have a big Federal fiscal stimulus to the economy if you follow the full employment surplus logic, that you are going to probably have a series or risk at least a series of quite substantial deficits? We ought to be prepared for it. We are going to have to have tax cuts. And we will require a great increase in Government spending programs if we are going to achieve this low level of unemployment and high level of employment.

Mr. SCHULTZE. Clearly if, as after World War II, the level of demand in consumer and investment goods were running very high and very strong, then it may well be that for purposes of rational economic policy you would have to run a substantial surplus. As a matter of fact, after World War II we did not have a large enough surplus. We ran one for a couple of years. I am sure it should have been larger. Because the pent-up demand from World War II was overwhelming. Clearly, in that magnitude we do not have it.

Chairman PROXMIRE. We do not have it at all to speak of.

Mr. SCHULTZE. Pent-up demand does not seem to be present.

Chairman PROXMIRE. We had controls, and we don't have them now.

Mr. SCHULTZE. As a general proposition we had 2 or 3 years of extraordinarily high consumer savings in World War II which we have not had recently.

So we are dealing with a question of surplus or deficit—to take the surplus out—which is of a much smaller magnitude than after World War II. But this then gets down to a much more refined calculation as to what your expectation is with respect to private housing demands and consumers savings and so forth, and then translate that to what would be the appropriate Federal budgetary surplus or deficit. And as I say, you are getting down to areas of refined numerical calculations when you are talking about swings in the order of a half a percent in the GNP. After all, a \$4 billion surplus is a half percent of the GNP.

Chairman PROXMIRE. You had a very interesting table. Could you give us the reasons for the large proportion of defense business in the tables you have presented to us?

Mr. SCHULTZE. In the tables which I mentioned, I think, in the colloquy with Mr. Curtis, we do have the States and regions laid out. We do not have the individual labor market areas.

Chairman PROXMIRE. Did you lay those out as far as the Vietnam war is concerned?

Mr. SCHULTZE. No.

Chairman PROXMIRE. Because it is difficult to analyze the effect of Vietnam deescalation because two-thirds of this defense spending is not Vietnam.

Mr. SCHULTZE. This is total defense, not segregated by Vietnam.

Chairman PROXMIRE. Can you break it down on Vietnam spending; that would be very helpful.

Mr. SCHULTZE. To the best of my knowledge on this kind of calculation, no, sir.

Chairman PROXMIRE. Wouldn't it be well worth getting that kind of information?

Mr. SCHULTZE. I think what one would have to do would be to translate in terms of the aggregate—again, one of the things we want to look at in the Ackley committee is our own capability.

Chairman PROXMIRE. I should think that would be relative—I know it is nothing in this area where you have such enormous sums—but it would be relatively simple for the Defense Department and the Budget Bureau to be able to determine what is being used in Vietnam, where it is being procured. Helicopters, for example, are one item which I think would be sharply reduced, with Vietnam deescalation, and you must know where those are being procured. And many other items that are being used in Vietnam. And there are others, research expenditures of various kinds, ballistic missile procurement, that kind of thing, which would not be affected at all by Vietnam.

Mr. SCHULTZE. What would be required is a kind of study of what kind of contracts would be cut, and then go back and translate that information into the specific areas that might be affected. Now, as I say, this is precisely one of the things that the Ackley committee is tak-

ing a look at; and it is examining the mechanisms that we have available to do that translation. Of course, a lot of the translation involves not just prime contracts, but subcontracts.

Chairman PROXMIRE. I saw a very interesting statistic in the Wall Street Journal reporting on the Vietnam veterans, showing that after World War II 29 percent of those of us who were in World War II took advantage of the GI bill to take further education; after the Korean war 50 percent did; and they said in this war 84 percent are doing so. This is most encouraging as far as the future of the economy of the country is concerned, but it also indicates a tough challenge. You indicate that it may be in this area that we do not have the personnel or the facilities to handle some of these things. Now, you were not specific as far as the GI bill is concerned: But is this one of the areas where we should be concerned about providing a sufficient instructional personnel and facilities, and so forth?

Mr. SCHULTZE. In general, I would agree. I was specifically addressing my comments—as it is quite relevant—to the limitations. The rate at which you could increase the Federal Government's programs is very limited in some cases by the availability of trained personnel; this is particularly true in such areas as health, employment counseling, and city planning. Another area is education, where personnel skills are very important and their shortage can be a limitation on how rapidly one can increase education programs. If you look at the education picture in the United States you see that the colleges and universities are being hit very heavily by the influx of those children who 10 years ago were in elementary schools and secondary schools. You see the big enrollment problems that we had in the postwar years now being transferred from elementary and high schools to the colleges and universities. However, my comment was a more general one. Increasing Federal expenditures is not something that you should do by taking into account only purely technical factors and seeing where one might feasibly increase Federal programs from the point of view of funding availability. One should also consider the desirability from the end-use standpoint, from the social and economic values of the alternatives considered, and also from the practicability of the action with respect to the availability of the skilled personnel to do it.

Chairman PROXMIRE. Let me ask you if this is true. This is a problem as far as your educational institutions are concerned, because they are being used to their capacity now. But at the same time it is a helpful adjusted to what otherwise might be an unemployment problem. After all, if you are going to have a demobilization of 500,000 men over a period of a year and a half or 2 years, and most of them are going to be in education, then you do not have to worry quite as much about having jobs available immediately. Of course, maybe they will want jobs to supplement their GI benefits if they are married, and so on. Even so, it is much less of a problem, and it is a different kind of a problem. You have to look at the kind of jobs you need for them when they finish.

Mr. SCHULTZE. Conversely, having taken that education, the mix of the labor force will probably be better suited for the mix of the jobs available simply because of the fact of their education. That has been our experience in the past.

Chairman PROXMIRE. Thank you.

Congressman Curtis?

Representative CURTIS. After listening to this, I just wish a little more that this were a paper, and before the eyes of the task force under Chairman Ackley. I certainly hope that this task force will make its working papers available to the public, and certainly to Congress. This secrecy would seem to be a habit of executive task forces. Surely there is nothing involved in this kind of study that needs secrecy, is there?

Mr. SCHULTZE. This I have not even discussed with the task force.

Representative CURTIS. I should direct that to the task force. But I am still concerned about the executive department now having created two commissions to study manpower authorization for the military. And Congress still does not have the working papers, if there were any. In fact I am convinced by now that there were no working papers, but that they just had their conclusions and presented them.

Mr. SCHULTZE. If you will recall, for example, the one on the draft, there were voluminous appendices and statistics.

Representative CURTIS. I have read those working papers—those are conclusions.

Mr. SCHULTZE. There are also——

Representative CURTIS. I beg to disagree with the gentleman. There are practically no work papers. One has to guess where to get this information. And frankly, it is almost useless.

But there is one specific question. The Armed Services Committees and other students of the area of expenditures have said that the first phase of the Vietnam war was operated to a considerable degree on inventory in pipeline. And if this were so, the levels of expenditure would just continue on at the projected operation that we have in Vietnam, and would, I think, increase. And at the end, if that were the planning of the Defense Department, we would have to fill up inventory and pipeline. Would you care to comment on that?

Mr. SCHULTZE. I am not sure that I can comment at all in any detail, simply in terms of lack of detail. It is quite clear, of course, that when you move into any situation like this, you initially do draw down inventories until you get your pipelines running again. That is quite correct.

Representative CURTIS. What I am trying to do is direct that point to the then level of expenditure.

Mr. SCHULTZE. Quite right. What you will find is that the actual level of expenditure will at first be less than and then more than the actual rate at which you are using materials, simply because of the inventory fluctuation. You are quite right on it. And in turn, whenever you cut back you have to take into account your policies with respect to inventories—for example, the fact of having fought a conflict that lasted over some months gives us a better idea of what kind of inventory we should have. So one of the other things you must look at is the inventory policy as you start cutting back expenditures.

Representative CURTIS. You say—and I am quoting from your statement:

But there should be no doubt in anyone's mind that appropriate fiscal and monetary policies can insure an adequate level of overall demand and accomplish the transfer of resources to what ever end we as a Nation desire.

And I emphasize the word "transfer," because this is, as I see it, a key—there is a real cost involved in the transfer. We mentioned the GI bill as one of the costs in transfer, and one that I frankly think is a good one, but it does increase our governmental expenditures. The disabled veterans' benefits is another factor in this transfer that is important.

But also in this transfer there is an increase in the training and retraining that is going to have to go on in the private for profit sector. According to their estimates, they have come up to an expenditure level now of around \$14 billion a year in training and retraining. Now, if training and retraining is increased to some degree, and requires a shifting of plant, modifying it in whatever way is necessary to get a peacetime product, to get the plowshare instead of the spear, it also has a cost. This all relates to the corporate profits and other business profits, which in turn relate to the revenues that the Federal Government can count on.

I am explaining why I was critical of quoting Secretary Fowler's assumption that the revenue of the Federal Government would continue at the same level as we are experiencing during the Vietnam war operation. Have you made any estimates of the costs involved in transfer, including increases in expenditure of the Federal Government—and I mentioned a couple of areas—as well as the effects on Government revenues.

Mr. SCHULTZE. I have not made an estimate specifically along those lines, Mr. Curtis. My own view would be that the actual cost of transferring resources, while it exists, is not by any means massive. For example, the GI bill—

Representative CURTIS. May I argue with you a little by giving another illustration. After World War II, the demand for our agricultural products, of course, fell way off. We had asked our farmers to plow up additional acreage in order to be able to meet the wartime demands for agricultural products until the Western European countries and other countries came back into industry. This created a problem in transfer after the war, and I think rightly so. And we said to those under our subsidy programs, we are not going to leave you high and dry. We never did effect a transfer because we just continued the support after that.

I am trying to illustrate some of the costs involved in transferring resources. This is what I hope the Ackley committee is going to direct attention to, both the cost of transferring resources; namely, plant to peacetime production, but probably even more costs, and certainly more important, the cost of changing manpower skills.

Mr. SCHULTZE. I agree with you, Mr. Curtis. Undoubtedly that is an area that requires a good bit of investigation and study, but all I wanted to point out was: Don't overemphasize the cost of the transfer.

Representative CURTIS. I can't, because I don't know what the costs are. And I would argue the other way. I think the administration not only underemphasizes the costs, but is not even coming up with some estimates. I don't know what they might be. But I do know that these problems have been very real in previous wars.

Mr. SCHULTZE. When we went into Vietnam the transfer cost was not a really serious one, because of the relatively modest proportion

it represented of total economic activity. The transfer of resources that occurs every year as individual industries grow or decline is probably much larger. I am just putting it in perspective.

Representative CURTIS. Certainly in a technological, rapidly changing society the instance of transfer is increased. But it was sufficient, I would argue, to create what we call a recession after the Korean war.

Mr. SCHULTZE. That wasn't because of transfer costs.

Representative CURTIS. I argue at any rate that the evidence shows that it was almost entirely in the transfer area. From a partisan angle the critics of the Eisenhower administration granted it on another basis, almost ignoring the problems involved in shifting from a war economy to a peace economy.

Mr. SCHULTZE. And yet after World War II we didn't have a recession as a transfer cause.

Representative CURTIS. We didn't immediately. But I think we had these various problems which were caused by other conditions.

Mr. SCHULTZE. The only point I wanted to make for the record, Mr. Curtis, is that I don't think you can say that transfer costs are such, either in magnitude or in nature, that it is going to pose major recession problems. It doesn't mean that there won't be any problems at all.

Representative CURTIS. I wasn't saying that necessarily, I am just trying to direct attention to it particularly—I might say that in the structural area only our need for skills in health, education, and welfare impedes our growth there. We are talking in terms of hundreds of thousands of jobs going begging. And if this kind of shift is going to put a further load in that area, it means that we have got problems. I wouldn't necessarily say that we are going to come into a recession, because I don't think we will.

This leads me to the point where you say this:

There is no automatic mechanism which provides for an increase in private spending to absorb the freed resources.

And I was wondering what you thought the marketplace was, if that isn't an automatic mechanism in our society which will go to work immediately on absorbing the private spending.

Mr. SCHULTZE. Not unless certain decisions are made with respect to either taxes or other Federal spending.

Representative CURTIS. Isn't this what happened after World War II?

Mr. SCHULTZE. No, sir.

Representative CURTIS. What happened?

Mr. SCHULTZE. We had a massive reduction in taxes.

Representative CURTIS. I see what you mean.

Mr. SCHULTZE. I am not saying that within the consumption sector that we should be telling consumers what to do. What I do mean—

Representative CURTIS. I was afraid you were.

Mr. SCHULTZE. No, I was pretty clear, I thought. All I am saying that if you reduce defense expenses by—you name a figure, \$15 billion—something else has to be done to make sure that \$15 billion is used up, it could be a tax reduction, or monetary policy, or other Federal expenditure increase, but it won't happen by itself.

Representative CURTIS. Then we are on the same wavelength. I frankly had read this to mean that the Government had to get into the expenditure policy area to tell us how to allocate our resources.

Mr. SCHULTZE. May I read the sentence?

Representative CURTIS. We can go on.

Mr. SCHULTZE. The next sentence to the one you quoted, I thought, made the point. But maybe I am wrong.

Representative CURTIS. I didn't get it, I will be honest with you. And then when you had your colloquy with the chairman using some of this to retire debt, I became even more concerned.

But, to continue, you say:

The relative emphasis we place on tax reductions versus increases in the Federal budget—

There we get into an area where we might have a quarrel, maybe we don't—for example, will determine how the newly available resources will be split between the private and public sector.

Let me ask: On tax reductions have you contemplated a tax credit as a very fine way possibly of having tax reductions?

Mr. SCHULTZE. We have neither included or excluded—we have excluded nothing.

Representative CURTIS. You wouldn't exclude it? In other words, in according tax reduction you could include, for example, the tax credits which many Congressmen put in, such as I, myself, for part of the cost of educating your children.

Mr. SCHULTZE. We wouldn't exclude looking at anything.

Representative CURTIS. Up to date the administration pretty well excludes tax credits as an alternate method of spending money on education, and on the area of air pollution and water pollution, because there are many of us who suggested that it would be a much preferable way for expenditure policy through a tax credit, rather than increasing the Federal budget expenditures. Do you see what I am trying to get at?

Mr. SCHULTZE. All I am saying is that in looking at the particular cases you mentioned, for a number of reasons—and I realize you disagree—in these particular cases we felt that it was not good policy.

Representative CURTIS. I appreciate the difference. But certainly from the standpoint of aggregates it doesn't make any difference, does it?

Mr. SCHULTZE. In the aggregate sense?

Representative CURTIS. Yes.

Mr. SCHULTZE. No, usually it is the program sense.

Representative CURTIS. And that is what I would like to discuss.

My time is up, Mr. Chairman. I would like to come back later.

Chairman PROXMIER. I just have a couple of very brief questions.

This morning you were discussing the balance-of-payments impact of Vietnam. And it seems that there was a direct effect of \$800 million to a billion dollars, and an indirect effect last year of maybe a billion dollars, adverse effect in Vietnam. For the record, would you—unless you would prefer to reply directly, because this may be a little bit out of your field, the Treasury may be helpful to you—I wonder if there is any additional pressure on our balance-of-payments deficit that can be eased as far as our policies in Asia are concerned or elsewhere as the effect of Vietnam expenditures.

Mr. SCHULTZE. Aside from obviously realizing and being familiar with the numbers you have indicated in terms of the fact that Vietnam has had an impact on the balance of payments, I am not prepared at the moment to talk about specific measures. These that we have gone through, as you are aware, are an illustration of the situation. But I am not prepared at the moment to talk about the details of it.

Chairman PROXMIRE. I think it would be helpful for our record to indicate when you correct your remarks any other alternative that may be available and might be considered.

(The following information was subsequently supplied:)

MEASURES TO RELIEVE PRESSURE ON THE U.S. BALANCE OF PAYMENTS ARISING FROM EXPENDITURES ON VIETNAM

Measures have been taken to encourage military personnel abroad to return a larger portion of amounts earned to the U.S. Such measures include improved procedures to facilitate allotments, and the Uniform Service Savings Deposit Program which authorizes the Government to pay interest rates of up to 10 percent for savings received from servicemen overseas.

Special efforts are also being made to assure that overseas expenditures by contractors are held to the minimum amount needed to carry out program requirements. Overseas expenditures by the principal Defense Department construction contractor in Vietnam have been held to about 20 percent of contract payments in the past eighteen months.

Procurement under the economic assistance program in Vietnam is restricted to the U.S. or to certain less developed countries where they can meet urgent requirements more promptly than the U.S., provided the countries agree to accept payments in dollars tied to financing imports from the U.S. through a special letter of credit. A waiver authority permits an exception when urgent requirements can be satisfied feasibly only from other countries.

Recently, a P.L. 480 local currency sales agreement was concluded with the Government of Vietnam under which all the proceeds of the sale are to be reserved for U.S. uses to meet our expenditures in Vietnam as a substitute for dollars.

Chairman PROXMIRE. One other question: The Arms Control and Disarmament Agency has this to say. I will read this and ask you for your remarks:

The alternatives for defense industry are by no means limited to producing goods and services for commercial purposes. Recently, interest has centered on the possibility that defense companies' capability for "systems" analysis and engineering, as well as their Government-market orientation, might be well-suited to the competition for the expanding requirements of Federal, State, and local governments in such fields as air and water pollution control, urban development, public transportation, education, and information retrieval. The State of California has let a number of contracts for feasibility studies by defense contractors for the solution of broad problems of the State. ACDA has contracted with the Denver Research Institute to pull together and evaluate the many threads of this public sector potential for defense industry which are now being considered and discussed.

And I wonder to what extent you think it is true that the defense industry can reorient or guide civilian needs in the public sector, especially the sector that is non-Federal.

Mr. SCHULTZE. I think I would probably take the middle-of-the-road view on that. On the one hand, it is perfectly clear that a number of problems that we have in the public sector—water pollution and urban rehabilitation are two examples—do lend themselves to systems analysis.

Take urban rehabilitation. You are faced with the problem of standard rehabilitation on inherently unstandard dwellings. It lends itself to the systems approach.

Obviously water pollution, the problem of whole river basins, lends itself to the systems approach.

And there are any number of alternatives usually available, no one of which is the sole answer. And the appropriate combination has to stem from a very careful systems analysis and a very close look at these complicated areas.

So, on the one hand, I fully agree that the applications of systems analysis to these problems is both possible and probably hasn't been done enough. And the capability of some of these defense contractors clearly is in that line.

I would then modify that by saying that one of the major problems in these areas is not the technological problem, but the institutional problem, dealing with multiple governments, cities, metropolitan areas, composed of 200 or 300 different levels of government, river basins composed of States, counties, and cities, and other units. So that unlike the defense area, where you stipulate an objective, and simply go to it in a sense, in the civilian area, one has to work out institutional mechanisms for making sure that the systems analysis is more than just a piece of paper. Hence, I take it, there are great potentialities, but you can't make a simple transfer from a defense situation to either a private or public situation.

You have to taken into account these institutional difficulties.

Chairman PROXMIRE. Then your reply suggests further action by some agency, presumably the Federal Government, to try and work out reasonable agreements to the extent that you can't in a State? California is ideal, it is so big, it is like three or four States of average size. And so it is to be expected that she might take the lead in this area. This suggests, however, that in many States where you have a common river basin or other common situations that might bring them together, that this is what you need. You suggest that you are not going to be able to get this automatically, it is going to take some Federal leadership, perhaps, to persuade these areas to work together to take advantage of defense contracting resources.

Mr. SCHULTZE. There are two areas. I can't recall the exact language or the exact provisions. But the last year's water pollution legislation did provide for river basin planning in the water pollution control. Now, the legislation finally came through with some of the requirements on this, perhaps a little weakened, but in any event it is there. Similarly in the model cities legislation there is an opportunity for the application of rehabilitation techniques over a wide area. But in any event, I would agree on this, you need some kind of leadership to work both institutionally and technologically on the systems analysis approach to these problems.

Representative CURRIS. In St. Louis, by the way, we are under Federal legislation. We do have it by State agency in Missouri and Illinois where we get at many of these subjects. And it is very desirable, and a great deal more emphasis needs to be placed on it.

Let me get back to my final line of questioning, taking up where the chairman asked about the possibilities of some debt retirement. I would suggest this is another way of relying on the private sector to pick up expenditures in lieu of the Federal Government.

Now, I am interested in this, not just from the standpoint of getting a balanced budget. We will just assume an even break. I have got three basic reasons. The first, and by far the most important is to get better expenditure policy through the discipline that a balanced budget produces. I think we have got a very weak expenditure policy in many programs.

The second is the international balance of payments.

And the third is to free our monetary policy, so that it is more flexible in avoiding inflation.

But now I want to come to the question.

The ratio of the Federal debt to GNP is right now about 45 percent. And I think that to relate the size of the debt to GNP is an accurate measure. GNP to a degree reflects our revenues, the economic activity and the profits made from it. But I have raised the question as to whether or not 45 percent is the optimum ratio. I have suggested a ratio of around 15 percent, which is what it was during most of the period of this country's fastest growth rate. Has the administration got in mind any optimum ratio? Do they want it around 45 percent, or if they had their way, would they like to shoot for 25 percent? What do they think an optimum ratio is?

Mr. SCHULTZE. Quite frankly, Mr. Curtis, I don't think there is an optimum ratio.

Representative CURTIS. What you mean is that—I hope what you mean is that no one has yet studied it.

Mr. SCHULTZE. No, sir.

Representative CURTIS. You surely think the Federal debt has sufficient economic impact so that there probably is some ratio that would be better than another. Would you think 100 percent is a good ratio?

Mr. SCHULTZE. No, sir; all I meant was that the key thing was what you do in order to change the ratio.

Representative CURTIS. We will talk about that after we get the optimum. Maybe we can't achieve it.

Mr. SCHULTZE. I disagree. I don't think you can set an optimum and then change the budget willy-nilly to get that optimum.

Representative CURTIS. I didn't say that. I said, let's find out what the optimum is, and then we can argue. We can't achieve it for various reasons, or we have to protect it over a period of time. But to have an optimum, I would think is desirable. But when you have made the record—

Mr. SCHULTZE. The key point, Mr. Curtis, is that if you were in the year, let us say, 1924—I don't know what the ratio was—but say it was 10 percent—

Representative CURTIS. Around there.

Mr. SCHULTZE. To go from 10 percent to 40 percent would have been catastrophic in 1 or 2 or 3 years. The economy adjusts itself to given levels of financial institutions and the kinds of financial paper. Therefore, I am not sure that I can, outside of the context of what budgetary steps are needed to make changes in the debt, pick a num-

ber and say, that is the optimum number and any number higher or lower is bad.

Representative CURTIS. This is very interesting, because there are a number of people that picked the optimum ratios of unemployment. And some of them said 4 percent. And this administration had some optimum ratios in regard to pricing and wage increases relating to a specific economic factor of productivity.

Mr. SCHULTZE. I think this is quite a different thing.

Representative CURTIS. All right. I am sure that the Council of Economic Advisers doesn't feel that there is an optimum need here, because it was never discussed in the interrogations that I have tried to make.

Well, there are ways of lowering that ratio, and those are the ways that we followed since World War II, mainly, by inflation.

Mr. SCHULTZE. I disagree, Mr. Curtis.

Representative CURTIS. Because what was followed—I am not saying it was planned—

Mr. SCHULTZE. The main way that that ratio was lowered was the increase in GNP. And the largest part of that increase was not inflation.

Representative CURTIS. I think the figures will show differently. It was around two-thirds of the reduction, considering the fact that it is in the constant dollar, and GNP is in your current dollar—I once computed it, 2 or 3 years ago, but then about two-thirds of it was the result in inflation rather than a real increase in GNP.

Mr. SCHULTZE. Certainly in the last 10 years by far the largest part of your increase in GNP has not been—

Representative CURTIS. I am talking about since World War II, since 1946.

Mr. SCHULTZE. In the immediate postwar years it was primarily inflation, but since 1948 I am certain—

Representative CURTIS. There hadn't been much decline in the ratio—the big decline was up until the heavy inflation stopped in 1951.

Mr. SCHULTZE. In 1948—it has been more than cut in half since 1948.

Representative CURTIS. I didn't accept your 1948 figure. I took the 1951 figure, which is the date of the Federal Reserve—Treasury accord—

Mr. SCHULTZE. It has been almost cut in half of that.

Representative CURTIS. Let me finish—the date of the Federal Reserve Treasury accord in effect pretty well stopped the World War II inflation. So you have to include that in that figure. But since the heavy part of the inflation, then we moved to creeping inflation, the ratio hadn't declined—

Mr. SCHULTZE. It has been cut in half.

Representative CURTIS. The big decline in the ratio since World War II came immediately after the war, and was largely the result of inflation. We can put the figures in the record, though, so that anyone reading the colloquy can look at them.

(The following table was supplied by the Bureau of the Budget for insertion at this point in the record:)

TABLE 3.—Ratio of public debt to gross national product

Fiscal year	Public debt at end of year ¹	Gross national product	Ratio
	Billions	Billions	Billions
1920.....	\$24.3	\$87.8	0.277
1925.....	20.5	88.9	.231
1930.....	16.2	96.7	.167
1935.....	32.8	68.7	.478
1940.....	48.5	95.0	.510
1941.....	55.3	109.4	.506
1942.....	77.0	139.2	.553
1943.....	140.8	177.5	.793
1944.....	202.6	201.9	1.004
1945.....	259.1	216.8	1.195
1946.....	269.0	201.6	1.339
1947.....	258.4	219.8	1.175
1948.....	252.4	243.5	1.036
1949.....	252.8	260.0	.972
1950.....	257.4	263.3	.977
1951.....	255.3	310.5	.822
1952.....	259.2	337.2	.768
1953.....	266.1	358.9	.741
1954.....	271.3	362.1	.749
1955.....	274.4	378.6	.725
1956.....	272.8	409.4	.666
1957.....	272.6	431.3	.627
1958.....	276.4	440.3	.628
1959.....	284.8	469.1	.607
1960.....	286.5	495.2	.578
1961.....	289.2	506.5	.571
1962.....	298.6	542.1	.551
1963.....	306.5	573.4	.534
1964.....	312.5	612.0	.511
1965.....	317.9	651.8	.488
1966.....	320.4	712.0	.450
1967 (estimate).....	327.3	762.5	.429

¹ Includes Government enterprise debt guaranteed by U.S. Treasury.

Representative CURTIS. There was an article in the Wall Street Journal this morning, in regard to the Federal Reserve. And the point, as I understand it, was that it now based its monetary policies largely on the open-market operation of purchasing or selling Federal securities. This is the basic method that was used to increase the money supply. But this was not emphasized in this same article, although it was mentioned that the Federal Reserve also has a function to preserve an orderly market for Government securities. When you have it down to a certain size, particularly a rollover of a debt—we have got over 50 percent now in securities of 1 year less—the burden of the open-market operations become quite difficult. This is particularly true if you are trying to roll interest rates down, because there is an impact on the interest rate as a result of the interest set in Government securities. Would you agree with those observations and make the comment?

Mr. SCHULTZE. Obviously, the size and composition of the Federal debt has a relationship to the maintenance of orderly markets. But it seems to me that the relationship is rather tenuous as a general proposition, and in maintaining that orderly market, that particular objective is not, I would say, strongly influenced, not strongly influenced by the size of the Federal debt.

Representative CURTIS. Wouldn't you agree that it was the conflict of these two functions that brought about the Federal Reserve Treasury accord of 1951?

Mr. SCHULTZE. Yes, sir; I think that is generally correct. That does not necessarily mean that the existence of a debt the size we have now, itself, makes the maintenance of an orderly market difficult. That was my point.

Representative CURTIS. That is the thing we are leading up to. I am just trying to explore the details to see whether that, indeed, is true.

I would observe that in 1966 we had the highest interest rates since right after World War I.

Mr. SCHULTZE. Correct.

Representative CURTIS. And to some degree it seems to me that it was the result of a problem the Federal Reserve Open Market Committee had in trying to do two things—to increase the money supply in accordance with the demands of private enterprise system and the demand of the Government for money in that same system, and at the same time not to let interest rates get completely out of hand. And a third factor, the impact that the interest rate had on our balance of payments.

In other words, raise the interest rates domestically, and we have an influx of foreign investment which does occur. I am simply directing your attention to some of these factors, economic factors that are involved in the management of the Federal debt.

Mr. SCHULTZE. My only point was that in maintaining an orderly market, that particular point is not necessarily or particularly made more difficult by the existence of a large debt. That was the point that I think you started with.

Representative CURTIS. That is right. And this is what I hope that we can begin getting a public dialog on. I am willing to beg my side of the question. I want to examine into it.

I have raised this over a period of years with Government witnesses, or Council of Economic Advisers, as well as yourself and the Secretary of the Treasury, I think that you have just presumed that you are right on it—

Mr. SCHULTZE. No, sir.

Representative CURTIS. But there is no evidence on that, while the evidence is quit clear as to what has happened, both as to the international balance of payments and the high interest rate. And I say it does relate to the size of the debt in relation to gross national product. And my observation is, I don't see how you can avoid it.

Mr. SCHULTZE. I am very interested, Mr. Curtis, in the evidence you have in regard to the Federal debt—you said that we never come forward with any evidence. I would be interested in the evidence that the existence of a large Federal debt has made the maintenance of orderly markets more difficult.

Representative CURTIS. I related it to the interest rate, the high interest rate in 1966, I related it for context back to the Federal Reserve Treasury accord in 1951.

Mr. SCHULTZE. How is the maintenance of an orderly market made more difficult by \$180 billion than \$280 billion?

Representative CURTIS. An orderly market for the Treasury means trying to market their securities at the interest rate they would like to get?

Mr. SCHULTZE. I disagree. There is no definition of maintenance of orderly market condition which says the Federal has got to support the Treasury interest rate or whatever rate the Treasury expects.

Representative CURTIS. That was the basis of the Federal Reserve-Treasury accord.

Mr. SCHULTZE. I fully agree—the problem before 1951 related to pegging long term Treasurys at a fixed rate.

Representative CURTIS. And then the Federal Reserve said that they were no longer going to provide a market for Treasury at the interest rates the Treasury was seeking to put on the debt securities.

Mr. SCHULTZE. I full agree. But that isn't the maintenance of orderly markets.

Representative CURTIS. I think we are going to bog down in semantics here.

Mr. SCHULTZE. I didn't introduce the question. My point is that the maintenance of orderly markets, Mr. Curtis, essentially refers to the maintenance of liquidity of Treasury securities and the assurance that the market will function smoothly and not be churning all over the place, and that holders of Federal securities have a good secondary market to which they can go. It seems that this is essentially the area—

Representative CURTIS. Then you have a much more limited concept of an orderly market than I do. And I would simply conclude by saying that the Federal Government certainly thinks it has got some responsibility under the terms of providing an orderly market to have a concern for the interest rates that the Treasury seeks to put on its debt certificates.

Mr. SCHULTZE. This relates essentially to the maintenance of steady market conditions during the narrow period when the underwriters are distributing securities. But the maintenance of an orderly market should not be confused with the preaccord policy of supporting Treasury bonds at a fixed rate. That is what I am trying to get at. I fully agree with you that the accord of 1951 was based on that problem, the opposition between maintaining a steady, unchanging rate for Federal securities on the one hand, and the flexible use of monetary policy on the other. They were in conflict, you are quite right, and the accord was aimed at resolving that conflict. What I am saying is that the maintenance of orderly markets can still be done without having to go back to pegging the Treasury rate at any fixed level. And it has been done.

Representative CURTIS. My time has long expired. But I am glad to develop this a bit.

I would make another observation. The term "market," particularly when you are talking about securities, includes, of course, the interest rates. That is part of it. And the Treasury estimates what interest rate they can sell at in relation to maturities, and then the Federal comes back with its estimate. So, I think that I am well within reason when I say that the Federal Reserve's responsibility to try to preserve an orderly market must await the interest rate that the Federal Government seeks to get. Then it comes back, why do we have a low interest rate, why do we have these high interest rates, mainly in Government

securities? And it was because, I would argue, of the size of the Federal debt in relation to the GNP, at least that is the syllogism I presented.

Mr. SCHULTZE. That is a conclusion; yes, sir.

Representative CURTIS. That is my conclusion.

Thank you.

Chairman PROXMIRE. Thank you, Congressman Curtis.

Thank you again, Mr. Schultze. Once again you have shown your remarkable and unusual ability in this field, and you have certainly enlightened us very, very much.

Tomorrow we will continue in the hearing room of the Senate Banking Committee, room 5302, of the new Senate Office Building. Our first witness will be Senator John Stennis, chairman of the Preparedness Subcommittee of the Armed Services Committee of the Senate. And our second witness will be Archibald Alexander, U.S. Arms Control and Disarmament Agency. We will have just the morning session tomorrow.

The committee will stand in recess until tomorrow.

(Whereupon, at 4:10 p.m. the committee adjourned, to reconvene at 10 a.m. Tuesday, April 25, 1967.)

ECONOMIC EFFECT OF VIETNAM SPENDING

TUESDAY, APRIL 25, 1967

CONGRESS OF THE UNITED STATES,
JOINT ECONOMIC COMMITTEE,
Washington, D.C.

The joint committee met, pursuant to recess, at 10:05 a.m., in room 5302, New Senate Office Building, Hon. William Proxmire (chairman of the joint committee) presiding.

Present: Senators Proxmire, Sparkman, Symington, and Percy; and Representatives Curtis, Rumsfeld, and Brock.

Also present: John R. Stark, executive director; and Daniel J. Edwards, staff economist.

Chairman PROXMIRE. The committee will come to order.

Today we continue our hearings on the economic effect of spending for the war in Vietnam.

As indicated previously, Budget Director Schultze has agreed to supply this committee with revenue and expenditure data in July so that we may take full cognizance of any changes in the fiscal situation in our own appraisal of economic developments. When we have the benefit of those figures, and Mr. Gardner Ackley also does, this committee intends to have him before us as a witness to give us the benefit of his latest appraisal of the economy. I think it is most important that this committee conduct a midsummer review and form its own judgments on the subject.

Regrettably, the administration's review of the problems of deescalation of the Vietnam war—by the so-called Ackley committee—will not be available by midsummer. We understand that it will be available some time in late August or early September. At such time as it is available, we also want to hear from Mr. Ackley on the administration's findings and conclusions about the economic transition at the end of Vietnam hostilities.

I want to stress that this committee is not only concerned with the effect on the economy of deescalation. We are also just as deeply concerned, of course, with the effect on the full range of possibilities, including greater commitment, continuation of the war at present level, and so forth.

The committee is privileged to have as today's opening witness one of the most knowledgeable people in the world on the subject of U.S. military preparedness: Senator John Stennis, chairman of the Armed Services Subcommittee on Preparedness. In the course of yesterday's hearings, I had occasion to quote from Senator Stennis' incisive statement of October 13, 1966, examining the disparities between the administration's original estimates for the Vietnam war for 1966 and the final figures. He can help us greatly in our present inquiry and we are delighted to have him here.

STATEMENT OF HON. JOHN STENNIS, U.S. SENATOR FROM THE STATE OF MISSISSIPPI

Senator STENNIS. Mr. Chairman, first I want to thank you and the members of the Joint Economic Committee. I consider it really a privilege and an honor to appear and talk to you gentlemen on this subject, and I want to commend the chairman and the other members of the committee for the very fine job that you are doing. You are quite helpful indeed, and I think you have a great place in the sun here, and that you will contribute more and more as the months and years come and go. I am very anxious for more to be done along the lines on which you gentlemen are proceeding.

I really was surprised, gentlemen, when your chairman invited me to appear before you. After all, in the fields of finance my experience is rather limited but it might be that for those of you who are not on the Armed Services Committee and who don't have a chance to follow military matters closely, I might say something of value, based on the experiences I have had.

Mr. Chairman, and members of the Joint Economic Committee, I was pleased to accept your very kind and flattering invitation to meet with you today. Although I have no great expertise in economic matters, I am delighted to make whatever contribution I can to the furtherance of your important work and the solution of the serious and weighty problems with which you are confronted.

My statement today will be directed primarily to the history of defense budgetary planning and appropriations requests for the past 2 or 3 years. This will show, of course, that the original basic military budgets presented to the Congress proved to be grossly inadequate for the needs. The necessity to return early in the succeeding Congresses for very large supplemental defense appropriations not only established the inadequacy of the original budgets but made sound overall budgetary and economic planning difficult, if not impossible. In my opinion, this situation still exists with respect to the fiscal year 1968 defense budget, although to a lesser extent.

Let me go back briefly to the summer of 1965 when the large-scale buildup of our combat forces in South Vietnam commenced. Let me emphasize that I review this history solely to emphasize the problem and to suggest how it might be better handled. At that time the fiscal year 1966 defense appropriation bill was pending before the Congress. It sought new obligational authority of \$48.5 billion, a reduction of \$7.9 billion from the service requests.

This budget had been finalized in the fall and winter of 1964. It was essentially a peacetime budget. In no way did it take into account or fund for the large demands on our military resources and assets which resulted from our greatly increased involvement in the war in Vietnam. It was clearly apparent that, since the budget had been put together, the cost of the war had gone up and up in every respect.

Since I was at that time serving as acting chairman of the Committee on Armed Services and the Defense Appropriations Subcommittee because of the temporary illness of Chairman Russell, I publicly urged the Secretary of Defense on several occasions during June and July 1965, to come to the Congress with all the facts and with such upward revisions in the defense budget as were necessary to take up the slack caused by the heavy, ever-increasing, unprogrammed and

unfunded Vietnam expenditures. I did that in keeping with my concept of my duties as a constitutional officer, I was acting chairman of this subcommittee, and we were at war. I know it and also knew there wasn't any money in the bill for the war at the escalated scale. It was going to be financed under the transfer authority.

While Secretary McNamara did not see fit to do this, in August 1965, he did submit a request for an add-on of \$1.7 billion to the fiscal year 1966 request. While this was approved, it was still far from being adequate. I pointed out in presenting the appropriation bill to the Senate on August 24, 1965, that the amount provided definitely would not finance the war during the then current fiscal year.

At about that time, that is, in August 1965, I publicly estimated that in January 1966, we would be faced with a supplementary defense appropriation request of from \$12 to \$14 billion. That was purely an estimate, but I thought my colleagues in the Congress and the public as well were entitled to my best judgment.

The supplementary defense appropriation request for fiscal year 1966 presented to us in January 1966, was for \$12.7 billion. It was, of course, approved. Thus, the basic defense budget of \$48.5 billion which the Congress considered in the spring and summer of 1965 ballooned to \$63.3 billion in early 1966—including about \$900 million to fund the pay raise—because of the tremendous increase in military operations and costs. Even with the supplemental, the amounts provided the Army were not entirely adequate. By May of 1966 the Army had estimated an additional requirement of over \$900 million to carry on its operations for fiscal year 1966. As a result of all of this, the overall fiscal and economic planning for fiscal year 1966, including estimates of the size of the deficit, was thrown completely out of balance.

In fairness it should be pointed out clearly that the large buildup of military operations during calendar year 1965 necessarily threw the original estimates out of balance to a considerable degree. The point which I made while handling the fiscal year 1966 defense appropriation bill was that there was no effort whatsoever to give the Congress a realistic or practical estimate of the additional funds which would be required to finance the war. The \$1.7 billion finally requested in August 1965 was obviously entirely insufficient and was known to be at the time.

The same cycle evidenced itself for fiscal year 1967. The basic military budget presented was about \$59.9 billion in new obligation authority—some \$3.5 billion less than the total for fiscal year 1966, despite the fact that our military operations had escalated and it was entirely clear that the cost of the war had gone up very substantially. It was also \$12.9 billion less than the services had requested. It was again clear that this was entirely inadequate. Fiscal planning at that time, as the Secretary of Defense frankly stated, was based on the arbitrary assumption that the war would end by July 1, 1967. This proved to be unrealistic.

The tragedy here was that we were required to legislate and appropriate in this vacuum of facts. Even if the facts couldn't be told to the public, I think it was a downgrading of the legislative branch of the Government to keep us in the dark in that manner.

Although repeated questioning in executive session failed to bring from Defense officials even a ball park estimate of the rate of spending for the war or what the fiscal year 1967 supplemental request

would be, I estimated in a statement on the floor of the Senate that it would be from \$12 to \$15 billion.

In January of this year the after-the-fact funding bill came in. The supplemental request was \$12.9 billion, raising the total of the new obligational authority for fiscal year 1967 to \$72.8 billion. The defense expenditures estimate for fiscal year 1967 was raised to \$67.9 billion, about \$9.6 billion over the original budget estimate. Once again, therefore, the funding of the war on a piecemeal basis threw the original budget, and, therefore, overall economic planning, entirely out of kilter.

I don't have any particular connections with the business world, but I did learn from them, after the fact, something about how much it meant to them to have some guidance and some information upon which they could base their production planning and adjustment in supplies. These things can't be done accurately. There is a slippage there that is inevitable. There are changes in circumstances and facts, but I think we owe it to the legislative branch of the Government and to the economy as a whole to do the very best we can. I am sure that you gentlemen agree.

Congress has the primary responsibility under the Constitution for the appropriation of funds. In doing this we are entitled to all of the facts and the very best financial estimates that can be made by those in the executive branch of the Government, who are closest to the problem. Otherwise, we are not able to fulfill our obligations, and it seems to me that the way this matter was handled in calendar year 1965 and calendar year 1966 forced the legislative branch of Government to what was, in effect, a neglect of duty.

In addition, as I have said, I think that the business, financial, and labor segments of our economy are entitled to know, as far as security permits, the "facts of life" with reference to our fiscal affairs so that they may better plan for their own future and thus keep our economy strong.

These were the basic principles of government which were my motivation in insisting on realistic figures during these 2 years. Another basic fact is that, because of the lack of information, and being "in the dark," so to speak, as to even the approximate cost of the war, the Congress passed defense appropriations bills during these 2 years in amounts which fell far short of the actual costs. As a result, the entire national budget was understated, thus making it more probable that other appropriations for new or expanded programs would be approved during the rush at the end of the session. That is a major fact of life. Despite the exclusive congressional responsibility as to appropriation bills, we did not have the facts before us; even those handling the defense bills didn't have the real facts that would afford sufficient guidance.

As the Secretary of Defense has stated, the basic approach in preparing the fiscal year 1968 defense budget was changed, and I commend this very highly. It theoretically funds the war in Southeast Asia for the entire year but at the levels of troop deployments and military operations which had been approved and authorized at the time the budget was put together and finalized. This is in happy contrast to the year before when the budget was based on the assumption that the war was going to be over by June 30, 1967. That was a laudable change. I quote now from the Secretary of Defense who said this year:

"Accordingly, barring a significant change in the character or scope of the Southeast Asia conflict, or unforeseen emergencies elsewhere in the world, the fiscal year 1967 supplemental and fiscal year 1968 budget should be sufficient to cover our requirements until fiscal year 1969 funds become available, even if the conflict continues beyond June 30, 1968."

The fiscal year 1968 budget requested \$75.3 billion in new obligational authority, with the expenditures being estimated at \$73.1 billion. It is a tight budget. The new obligational authority is only about \$2.5 billion above the total for fiscal year 1967 even though our military operations have escalated substantially. Of course, you take the news of yesterday. This indicates further escalation which could throw the estimates completely out of balance. The Secretary of Defense reduced the requests of the services by about \$17.6 billion for fiscal year 1968. Admittedly, some desirable programs have been eliminated or deferred.

I am highly pleased with the more realistic approach to the fiscal year 1968 budget which eliminates any arbitrary assumption as to the date the war will terminate. I also approve of justified reductions in the service requests that do not deny essential military requirements.

However, it is still very doubtful that the fiscal year 1968 budget is adequate even for the scale and scope of military operations envisioned when it was approved.

It should be added that neither the fiscal year 1967 supplemental nor the fiscal year 1968 budget completely provides for replacement of assets which have been drawn upon to wage the war in Southeast Asia. Gentlemen, I think this is a major point, especially for those of you who are not on the Armed Services Committee, although you may be fully advised. The 1968 budget does not provide for replacement of the assets which have been drawn upon to wage the war in Southeast Asia. Nor does it provide procurement funds which would be required simply to replace items already in the inventory with later models except for helicopters and tactical aircraft and where the newer model is required to replace consumption. These matters are being deferred and will have to be funded in the future.

If I may give some illustrations of what I mean to indicate that the money bill is piling up and will have to be paid sometime later. There is no modernization overall program, except for certain items, the direct requirements of Vietnam, and items required to replace consumption. That may be all right under the circumstances, but it is a fact of life that we will have to face later.

There has been a drawdown of many items. There was at one time an acute situation with respect to a simple thing like clothing, particularly that needed for the climate in which the war is being fought. Procurement of tentage and materials of that kind had to go on a crash basis. That had the effect of putting much of our production here at home into the war effort. As a result, the foreign suppliers came in and got a greater share of the domestic market. I am talking about textiles now. That ran their quotas up—their imports up for that year—which is the basis for figuring their quotas for succeeding years. This shows how these things impact.

There is another illustration with respect to the replacement and drawdown of equipment. I understand that an entire division's worth of equipment in the strategic reserve had to be drawn upon to equip Active Force units. This, of course, was the proper thing to do under

the circumstances, but my point is that the cost is going to have to be picked up later.

Aircraft is another example. We had to take aircraft away from the Reserve components. An example is the old C-123, a very valuable plane, and some lighter aircraft from the National Guard. This action was necessary and proper. Again, however, my point is that those things are not figured in the replacement cost in this budget and perhaps shouldn't be. But they are running up the bill for the future.

The Atlantic Fleet has been drawn upon significantly to support Southeast Asia and the deficiencies will have to be remedied. Otherwise we will have a greatly diminished defense effort in that area.

The fiscal year 1968 budget does provide money, which the preceding two didn't, for the longtime lead items, like airplanes, the production base for expendable ammunition, and logistic equipment. This is very important and, in this respect, the budget is sound. It provides also for trucks, material handling equipment, and the communications equipment which is needed. But those are items which we are having to procure and we will have to procure even more in the future.

In addition, this budget is based upon a planned level troops to be deployed. As you know, that number is still classified, but it has been announced that we have around 438,000 men in-country now, and that was at a very recent date. This budget is based upon a higher number of men than that. However, based on what I can learn and what General Westmoreland and others have said, and on records that we have seen, it is my personal opinion, and I have said this publicly, that by the end of this calendar year we will perhaps have 500,000 men in South Vietnam. That is more than are planned for in the present budget.

When you deploy just a few thousand men above the present planning, you run into added costs mighty fast—mighty fast. Compared to the number of men that are there now, 50,000 seems a small number. But you go to chewing up millions of dollars mighty fast if you add in 50,000 above this budget.

You know what the budget is based on. It is a classified figure. I won't mention it here. But if you should put in 50,000 above what is planned for, just to train them and transport them and support them, why you would have an increase there of from \$4 to \$6 billion mighty fast. That is on top of the present budget. Of course, from the news we know already there has been an escalation of the air attacks and other matters.

I emphasize that I am not trying to hold anyone to a precise figure. With a big budget like this, some \$75 billion, we are going to have slippages, variations and changes in the course of a year. However, this budget is not enough in my opinion, and it could very well happen, as I have suggested that billions more will be needed.

Let me emphasize again that the adequacy of this budget is, at best, limited to the scale of military operations and size of deployed military forces which had been approved when the budget was formulated late last year. The amount in the budget, if adequate to begin with—and this is doubtful—will remain adequate only so long as our troop commitments and the level of military operations do not exceed those which had approval at the time it was presented. In other words, the budget remains valid only as long as the planning level on which it is based and other planning factors on which it was based remain valid.

In my opinion, it is already clear just a few months later—and a full 2 months before we get into fiscal year 1968—that we are going to be forced to exceed the level of troop commitments which was approved when the fiscal year 1968 budget was finalized. Our responsible military commanders have already asked for substantially more troops than have been approved.

That is particularly pronounced in the I Corps in the northern part of South Vietnam which is the responsibility of the Marine Corps, and in the IV Corps in the Mekong Delta area. As you have read, we have already been forced to transfer several thousand Army troops from other areas of Vietnam to the I Corps to assist the Marines in meeting the threat posed by the large-scale infiltration of North Vietnamese forces in and near the demilitarized zone. Thus, we have been compelled to weaken our forces elsewhere.

Of course, as we know, General Westmoreland is in the country. He spoke in New York yesterday. He will speak, as I understand it, to a joint session later this week. I don't know how far he will go in these matters. I don't know how far the President will see fit to announce anything new. But these are the figures that I get, based upon past experience.

Therefore, in the face of hard realities and clear military requirements, I am convinced that unless the unexpected occurs, it will be absolutely essential to commit many thousands of military men to South Vietnam above the presently approved number. It is almost inevitable that the cost of the war will go up in men, machines, materiel and money.

It may be that it will be difficult for us to find major ground combat units to deploy to Vietnam without calling up Reserves or drawing down on forces deployed elsewhere, such as Europe or Korea. With this reservation, however, I feel that the end of calendar year 1967 will find at least 500,000 American troops in South Vietnam. This is some 60,000 more than are in the country at this time and is substantially more than are called for under the presently approved program. Even this number would be less than our military commanders have requested.

For all of these reasons, I do not believe that we can keep within the fiscal year 1968 military budget request if the war continues and I feel that next January we will again be faced with a request for a significant supplemental defense appropriation.

I think the amount is so highly uncertain at this time that I should not try to make an estimate now. It would be a guess, at that.

Mr. Chairman, that covers the points that I have in mind, sir, and I thank you very much.

Chairman PROXMIRE. Senator Stennis, I want to thank you for a most enlightening presentation. It was hard hitting but it was extremely well documented and it gives us information that we haven't been able to get before.

It also conflicts explicitly with the position taken by Assistant Secretary Anthony yesterday before us, and I would like to ask you about some of the conflicts involved.

First, I want to make sure I understand. You estimated in 1965, as I understood you to say, that the 1966 budget was inadequate, and needed a substantial supplemental. Is that correct?

Senator STENNIS. Yes; that is correct.

Chairman PROXMIRE. You said between \$12 and \$14 billion, and

you were right on the nose. It was \$12.7 billion. It couldn't have been closer.

Then, again in 1966, you estimated that the 1967 budget would be badly off, and again you were right; so that twice, for 2 successive years the Congress has not had an accurate estimate by the Defense Department.

Senator STENNIS. That is correct.

Chairman PROXMIRE. It has been way off both times.

Senator STENNIS. I don't claim or deserve any credit for those estimates. I was just doing the best I could, from where I was, and I say again that the budget is much nearer home base this year, without a question.

Chairman PROXMIRE. You say they are much nearer home base this time without a question, because they are making different assumptions, but at the same time, you indicate that on the basis of your expectation and prediction that by the end of this calendar year, which would be right in the middle of fiscal 1968, you anticipate 500,000 troops, and you say that this—

Senator STENNIS. Excuse me, by the end of this calendar year.

Chairman PROXMIRE. That would be in the middle of fiscal 1968.

Senator STENNIS. That is right.

Chairman PROXMIRE. 500,000 troops. And you say that this is well above the estimates in the budget of the troop strength which they posted for Vietnam, for fiscal 1968.

Senator STENNIS. That is correct.

Chairman PROXMIRE. On which they had based these estimates.

Senator STENNIS. That is correct; yes.

Chairman PROXMIRE. And you say, without giving any specific figures as to the situation here, you say that if they have 50,000 more troops in Vietnam than they estimated originally in January, the cost would be between \$4 to \$6 billion?

Senator STENNIS. I just said this. If they put in 50,000 troops above the number that the budget is based on, and increase the Active Army commensurately, then the extra cost, in my opinion, would run \$4 to \$6 billion.

Now that is purely an estimate. I think if they don't put in any more than they based the budget on, it is still a very tight budget.

Chairman PROXMIRE. Then you said—and I would like to know exactly when you mean by this—that the news of yesterday by itself throws the 1968 budget out of balance. Were you talking about General Westmoreland's speech in New York yesterday, or was it something else?

Senator STENNIS. I was referring to the step-up of the war, a step-up of the bombing at least, which I believe it is the only way to get results. If that is continued, it will perhaps increase the ground fighting, even though eventually I believe it will stop it. But the indications are that, instead of a slowdown in the war and a deescalation, with a consequent diminution of what the budget is based on, it certainly looks like it is going in the opposite direction and stepping up. That is the way it looks to me.

Chairman PROXMIRE. Yesterday Mr. Anthony said that he saw no reason why the Defense Department shouldn't stand by its estimates of January. He said that they may be off half a billion or a billion dollars but he doubted that, and he would stand by the original estimates.

You think that they are going to be off and it is going to be substantially more than \$1 billion without giving any specifics?

Senator STENNIS. I said if there is no step-up in the manpower—the money goes into the manpower. It is when you put in an extra 10,000 or 20,000 or 50,000 men; that is what really would require substantial additional money for this budget.

I said if they don't step it up beyond the budget planning in manpower, it is still a very tight budget. I would think it would run over the budget some—that they couldn't avoid it.

Now if you step up the manpower, as I have already said, say, as much as 50,000 men over the planned budget figure, then my estimate would be that it could well cost \$4 to \$6 billion extra. Of course, that depends on the intensity of the war.

I am making these statements just as an amateur, but as one whose position as a legislator puts me fairly close to it. I think we all have a responsibility. Mr. Anthony is very close to this problem and I am sure he is being honest with the committee.

Chairman PROXMIRE. You have had intensive experience here and I think your testimony has great value.

When you referred to the failure to allow for replenishing inventory, clothing, aircraft—

Senator STENNIS. Yes.

Chairman PROXMIRE. Do you feel that any of this would be included in the 1968 budget? I want to make sure I understand that. I gather you felt that this would definitely increase costs in the future.

Senator STENNIS. Well, in the future. I was referring more to the future. I think the committee should understand that the budget would be higher if we were not drawing on our reserves and deferring procurement. It is all right to do this, because we are at war.

But we are using up this material that will someday have to be replaced. I referred to the clothing. There was at one time a very acute situation with reference to clothing, but that has cleared up. I gave an illustration of the manner in which it impacted on the textile industry.

We have been taking equipment away from our Reserves and the National Guard rather than giving them their normal buildup. I also referred to the necessity to use a division's worth of equipment from the Strategic Reserve. This equipment could have been available for the use of the Reserve components but the Active Army needed it. It was proper to use it for that purpose, but you just deferred the cost of equipping a Reserve division.

Then I illustrated with the aircraft, too. We have taken some away from these Reserve units. We had to have it and that is all right, but still, it is going to have to be replaced some day. The same thing has happened to the Atlantic Fleet.

So those matters are not in the budget. That is my point.

Chairman PROXMIRE. Are there costs other than the costs involved in training, transporting, and maintaining 50,000 additional troops, say, in Vietnam that are not included in the 1968 budget?

Senator STENNIS. Well, as I said, I think the 1968 budget makes a rather—

Chairman PROXMIRE. Leaving those aside, assuming that we stay at the level which was estimated by the Defense Department at the beginning of this year, in manpower in Vietnam, throughout fiscal

1968. That is an unreal assumption, but I want to make sure that we have all the ingredients of cost involved.

Senator STENNIS. Right. Well, I think the 1968 budget at the planned level does put in the necessary money for these long leadtime items, like airplanes.

Chairman PROXMIRE. It puts that in.

Senator STENNIS. It takes 18 months to 2 years for the planes to come off the production line. Well, they put in the proper amount of money for those things this time, but not last year or the year before.

Expendable ammunition, that is ammunition consumed during that budget year, there is enough money in the budget approximately, as I understand it, to cover the ammunition that will be needed.

The logistic equipment, the trucks and the heavy handling equipment, are also in the budget. They are provided for, not like it has been for the last 2 years. So in that way it is a much sounder and better and realistic budget than before.

Chairman PROXMIRE. The big error would come if we have to send additional men to Vietnam.

Senator STENNIS. That is exactly right. I say it is a tight budget though, based upon the planned number of men.

Chairman PROXMIRE. Let me ask you this, Senator Stennis. Don't you agree that we ought to have an estimate from the administration? Wouldn't it be helpful to the Congress and to the country to have an estimate, without making any commitments, of what in their judgment it will involve if we have to send an additional 50,000 men, what a 500,000 level, for example, would represent.

I ask this because you are a very modest person, and I am willing to accept your estimate of \$4 to \$6 billion. But it would seem that it might be helpful to have the Defense Department's estimate too.

Senator STENNIS. Let me quickly say I would much rather have theirs, than mine.

Chairman PROXMIRE. Do you see any strategic reason why they can't give that to us?

Senator STENNIS. I think they could give it to you rather readily, gentlemen. I know last year I thought that we were entitled to some kind of an estimate. The committee that was handling the bill was certainly entitled to an estimate as to what they thought then the supplemental request would be in January 1967. As I have said, as late as October 1966, and they declined to mention a figure.

If they had just given an estimate to the chairman of the committee, it would have made me feel better. As it was, however, when the bill was on the floor, I felt that the Senators who were not on the Appropriations Committee or the Armed Services Committee did not have the guidelines they were entitled to. They would have voted for the military appropriation, of course, but maybe not for some of the other appropriations had they known about the true deficit. I think we are entitled to more information.

Chairman PROXMIRE. My time is up, but I want to come back.

Congressman Curtis, the ranking minority member of this committee, has graciously deferred to Senator Sparkman who has to leave.

Senator SPARKMAN. My questions will be very brief. Thank you, Mr. Chairman.

You mentioned the Atlantic Fleet.

Senator STENNIS. Yes.

Senator SPARKMAN. Would you expand on that just a little?

Senator STENNIS. Well, I was referring to the 6th Fleet in the Mediterranean and the 2d Fleet in the Atlantic. A good deal of that is classified, Senator Sparkman, but we have drawn down on them significantly. In other words, if these forces should be called into action they would certainly be powerful and formidable, but they would not be as combat ready as had been planned.

Senator SPARKMAN. It wouldn't be completely ready to go.

Senator STENNIS. No, not completely. That is a part of the picture.

Senator SPARKMAN. Yes.

Senator STENNIS. I am not downgrading the Atlantic Fleet at all.

Senator SPARKMAN. I have seen references recently to the effect that if this additional buildup in our troop force in Vietnam, which General Westmoreland is reported to be asking for, if that comes through, it probably would mean calling up the Reserve. Are the Reserves ready to go?

Senator STENNIS. Yes. We have Reserves that are ready to go.

Senator SPARKMAN. I mean are they equipped? You refer to Reserves.

Senator STENNIS. Yes. I was thinking more about training. There has been some headway made on having the Reserves far better equipped than they were, particularly some of them. We would have some ready to go rather quickly. They would have to have some more equipment, but my guess is if you called up a Reserve division from the Selected Reserve Force, one of those that was especially ready, it would be far less expensive than it would be to create a new division. But it would still require transportation, manpower cost, support and equipment, which would run into money fast.

Senator SPARKMAN. Is that covered in the present budget?

Senator STENNIS. No, sir, except that manpower at a certain level is covered in the budget.

Senator SPARKMAN. But building up the equipment, materiel.

Senator STENNIS. Well, there is perhaps some of in the budget for building up Reserves. I couldn't give a figure on that. But there has been a special effort to build up some units of the Reserves. This is known as the Selected Reserve Force. But by no means all of them. As a matter of fact, some equipment has been taken from the Army Reserves and the National Guard, for one reason or another, for the buildup in Vietnam.

But we do have some divisions now that with additional equipment and added training could be made ready to go. This, of course, would require more money since it would exceed the manpower level of the budget.

Senator SPARKMAN. You did not suggest the amount, but you did use a figure at one time, \$4 to \$5 billion. You said if we had this buildup of manpower, it would not take very long to push the required amount up by \$4 to \$5 billion.

Senator STENNIS. Yes.

Senator SPARKMAN. Could that be taken as a rough estimate?

Senator STENNIS. Well, I said just this: if we should go 50,000 men above the budget planned level, then for transportation, support, training and other essentials, we could very quickly increase the cost by \$4 to \$6 billion in a 12-month period.

Senator SPARKMAN. Is it your understanding that General Westmoreland's mission here is perhaps to ask for additional manpower?

Senator STENNIS. Senator, I wouldn't know any more about that than you do. However, I think it is.

Senator SPARKMAN. He spoke at New York yesterday. Did he give any indication to that effect?

Senator STENNIS. I haven't read his speech. I am familiar with what he has already said and the troops he has asked for. You see, the Mekong Delta area, for instance, has been an area that for a long time we hoped the South Vietnamese would be able to take care of and finally control. Well, we have changed our minds about that, and we have started sending our men in there.

That was months ago. We recognized that if it is cleaned up, it is probable that we have got to do it. That is one reason why I say that I think it is going to take more men. I don't believe there is any way around it, if we have to go all out.

I don't know what General Westmoreland is going to say. I have said publicly before that I believe he has been requesting more men than he has yet been given. But I am sure the President has any request that comes from General Westmoreland constantly under advisement.

I just know that within my mind. But I don't know what he is going to say over here. He was not encouraging about the war ending at an early date in his speech yesterday, as I read the headlines.

Senator SPARKMAN. In the figures you have dealt with, is there any part of that for the pacification program?

Senator STENNIS. Well, I have dealt primarily with the military part of the program, as I understand it. Now I don't know exactly what is classified about the pacification program. I just say this. We have many military men over there who are engaged in it.

Senator SPARKMAN. Yes.

Senator STENNIS. And to that extent the cost is in the budget.

Senator SPARKMAN. As I understand it, it is a joint program.

Senator STENNIS. Yes.

Senator SPARKMAN. Both military and AID.

Senator STENNIS. That is right.

Senator SPARKMAN. I was just wondering the extent to which that program may call for stepped up financing.

Senator STENNIS. I am not well versed on the economic aid part of it. Our men, our military men, have engaged in that program, and not with rapid success. I don't say total failure, but it has required more manpower there than we thought.

Senator SPARKMAN. I want to thank you for your presentation. I am going to have to leave. The Foreign Relations Committee is having an executive session that I promised I would attend.

Senator STENNIS. I am flattered that you stayed this long.

Senator SPARKMAN. Thank you.

Thank you, Mr. Chairman.

Chairman PROXMIRE. Congressman Curtis?

Representative CURTIS. Thank you, Mr. Chairman, and thank you, Senator Stennis, for your forthright statement.

I am encouraged to think that maybe the Congress is going to assume some very much needed leadership in this area.

Before directing your attention to a statistic, I want to comment that I was very disturbed that yesterday the prepared paper of the Director of the Bureau of the Budget on our subject, which is "Economic Effect of Vietnam Spending," was directed solely to the problems of deescalation. There was no discussion of the administration assumption that the Vietnam war is going to continue at the present level indefinitely, let alone the assumption, which is the more realistic one I would think, that there is going to be a further escalation.

Now this is in further context with the administration's Economic Report this year, which directed the Congress' and the public's attention to the national accounts budget and away from the administrative budget. This has to do with the cash flows that face us right now, and those that are going to face us in the ensuing months, and create the economic problems in the area of tight money, inflation, and so forth.

I am often critical of the news media, so it is a pleasure for me to give an accolade to the enterprising reporter of the United Press International. I have one of their clippings. This appeared in the Evening Star of April 21, 1967, calling attention to the fact:

U.S. military spending soared to \$6.7 billion in March, its highest level since the start of the war in Vietnam, the Treasury reports. The March total compares with outlays of \$5.6 billion in February and \$6 billion in January.

(The item referred to follows:

[From the Evening Star, Washington, Friday, April 21, 1967]

DEFENSE OUTLAY RISES IN MARCH

(By United Press International)

U.S. military spending soared to \$6.7 billion in March—its highest level since the start of the war in Vietnam—the Treasury reports.

The March total compares with outlays of \$5.6 billion in February and \$6 billion in January.

If military spending continues at a rate of \$6.7 billion for the three remaining months of fiscal 1967, the defense budget will exceed President Johnson's January estimate by more than \$2.5 billion.

During the first nine months of fiscal 1967, which ends June 30, military spending totaled \$50.5 billion, including \$500 million of military aid.

Three more months at a rate of \$6.7 billion would put the total for the year at \$70.6 billion instead of the \$68 billion Johnson estimated in his January budget.

In the January budget, the war in Vietnam accounted for \$20.9 billion of the spending total.

The administration has not publicly revised its January budget totals, but one high governmental official said last week that he expected Vietnam spending to exceed previous estimates.

In fiscal 1966, which ended last June 30, military spending totaled \$55.4 billion. During fiscal 1968, which begins July 1, \$73.1 billion is budgeted for defense.

It then goes on. Now these are the indicators, of course, that they are referring to. They are in the April 1967 Economic Indicators prepared for the Joint Economic Committee by the Council of Economic Advisers. On page 35 is the chart of Federal financing, and in column four we see Department of Defense military spending, and then military assistance. The figure for March 1967 is \$6.6 billion plus \$0.1 billion for military assistance. If this level were to continue, Senator—and incidentally, this is still fiscal 1967.

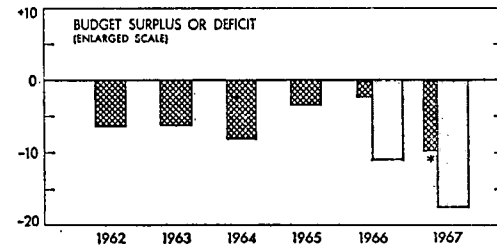
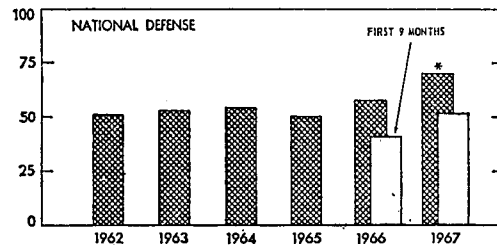
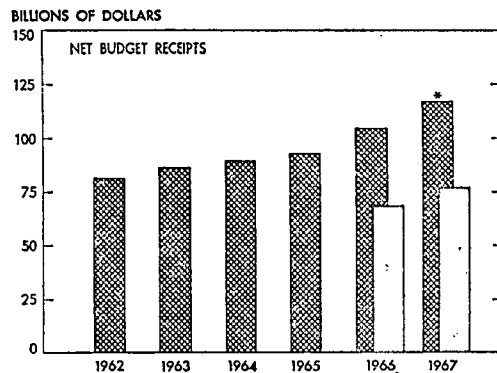
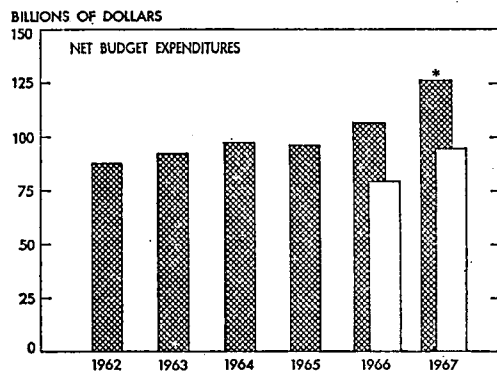
Senator STENNIS. Yes.

(The page referred to is reprinted herein, see pp. 82, 83.)

FEDERAL FINANCE

FEDERAL ADMINISTRATIVE BUDGET RECEIPTS AND EXPENDITURES

The administrative budget expenditures for the first 9 months of fiscal 1967 were \$95 billion. In the corresponding period of fiscal 1966 expenditures were \$80 billion. Receipts for the same period were \$78 billion in fiscal 1967 and \$69 billion in fiscal 1966.



*ESTIMATE.

SOURCES: TREASURY DEPARTMENT AND BUREAU OF THE BUDGET

FISCAL YEARS

COUNCIL OF ECONOMIC ADVISERS

[Billions of dollars]

Period	Net budget receipts	Net budget expenditures				Budget surplus or deficit (-)	Public debt (end of period) ²
		Total	National defense ¹				
			Total	Department of Defense, military	Military assistance		
Fiscal year 1962	81.4	87.8	51.1	46.8	1.4	-6.4	298.6
Fiscal year 1963	86.4	92.6	52.8	48.3	1.7	-6.3	306.5
Fiscal year 1964	89.5	97.7	54.2	49.8	1.5	-8.2	312.5
Fiscal year 1965	93.1	96.5	50.2	46.2	1.2	-3.4	317.9
Fiscal year 1966	104.7	107.0	57.7	54.4	1.0	-2.3	320.4
Fiscal year 1967 ³	117.0	126.7	70.2	67.0	1.0	-9.7	327.3
Fiscal year 1968 ³	126.9	135.0	75.5	72.3	.8	-8.1	335.4
1966: Feb	8.3	8.2	4.5	4.2	.1	.2	323.7
Mar	11.3	10.2	5.6	5.2	.2	1.1	321.5
Apr	9.9	8.4	5.0	4.8	(⁴)	1.6	320.1
May	8.5	9.1	4.9	4.6	.1	-.6	322.8
June	17.2	9.4	6.3	5.9	.2	7.7	320.4
July	5.7	10.3	4.9	4.7	(⁴)	-4.6	319.8
Aug	7.2	11.0	5.6	5.4	.1	-3.8	324.9
Sept	12.5	11.9	6.0	5.7	(⁴)	.6	325.3
Oct	5.8	11.0	5.5	5.3	.1	-5.2	327.4
Nov	7.4	10.4	5.5	5.3	.1	-3.0	329.9
Dec	10.6	9.5	5.9	5.7	.1	1.1	329.8
1967: Jan	9.4	10.0	6.2	5.9	.1	-.6	329.4
Feb	7.8	9.5	5.8	5.5	.1	-1.7	330.1
Mar	11.4	11.7	6.9	6.6	.1	-.3	331.5
Cumulative totals, first 9 months:							
Fiscal year 1966	69.2	80.1	41.5	39.1	.6	-10.9	321.5
Fiscal year 1967	77.7	95.2	52.2	50.0	.5	-17.5	331.5

¹ In addition to items shown, also includes atomic energy and defense related services.

² Includes guaranteed securities held outside the Treasury. Not all of total shown is subject to statutory debt limitation.

³ Estimates.

⁴ Less than \$50 million.

NOTE.—Total budget receipts and expenditures exclude certain intragovernmental transactions.

Sources: Treasury Department and Bureau of the Budget

Representative CURTIS. The figures you gave us for fiscal 1968, were for \$75.3 billion in requests for new obligational authority with expenditures of 73.1 billion. If we would assume—and I think we can assume—that this March figure in the latter part of fiscal 1967 is going to probably be at least the mean figure for fiscal 1968, multiply \$6.7 billion by 12 months and we have \$80.4 billion, not \$73.1 billion.

I recall in September 1965, when the same monthly figure came out in the Economic Indicators, in a speech on the floor of the House I called attention to the fact. This is a little bit partisan perhaps, but I said the real President Johnson had now stood up. I was always asking which was the real President Johnson, the one who was asking the Congress for more power to spend or the one who wasn't spending the money that Congress had given him the power to spend. Both were true.

Up to that point, President Johnson had not been spending heavily. He was spending at the level of fiscal 1965, of \$96.5 billion, which was commendable. But we saw in that month of September, as I said, the real President Johnson. He started spending then at a level that ended up at \$107 billion in fiscal 1966.

We now see this break that has just appeared in the past few days, where the actual expenditures were \$6.7 billion for the month of March, an escalation in one month of just over \$1 billion.

Senator STENNIS. Yes.

Representative CURTIS. Would you care to comment? It was mainly pointing up what I think are the points that you are making in your very fine address.

Senator STENNIS. Thank you. Congressman Curtis, and thank you for the statement you made as a background for your question.

On the overall expenditure picture, I don't have anything of particular value for you gentlemen. I gave the total NOA and expenditures just to present the entire picture. I have concentrated on the war itself, and the added cost that it is bringing about. I have already covered that in full.

But I don't see, with the war going on, unless there is something that I don't know about, that the President or anyone else can hold expenditures down. The figure you have mentioned of \$6.7 billion could be about right. But that is really out of my field.

Representative CURTIS. This, of course, is what the Joint Economic Committee must concern itself with.

Senator STENNIS. Yes.

Representative CURTIS. And then serving as I do on the Ways and Means Committee—

Senator STENNIS. Yes.

Representative CURTIS. The President has clearly overstated revenues in this budget. We now know this is true by the first quarterly returns on corporate profits and gross national product. We have a serious problem with the Federal debt, and how we are going to manage that. The leadership has got to come from somewhere.

My good Democratic friends are in control of the Congress, and I just plead with you to assume the leadership that has been dropped in the White House. Otherwise we are in for serious problems, but at least we might start to cope with them.

One specific thing, Senator, that is in your field of expertise. Yesterday I asked the Director of the Budget whether or not it wasn't true that the first part of the Vietnam war was financed to a degree out of use of pipeline and inventories. He agreed. Then I raised the question, what does that mean in terms of forward projections? Aren't we going to have to restock inventories afterward? I notice you emphasized this point.

Senator STENNIS. Yes.

Representative CURTIS. I just wanted to state I was glad you did emphasize it. It certainly is not emphasized in the presentation of the Administration. Not that Mr. Schultze disagreed, but he simply didn't emphasize it. Apparently he didn't think it was of consequence because he didn't have it in his preliminary paper.

Do you have an idea how much we might be talking of in terms of billions?

Senator STENNIS. No, I do not. I mentioned it because I know it is a fact, and that is more in the field that I have been working in. I think you correctly stated that this committee's overall problem is to get that entire overall picture, but I cannot answer your broad question.

While I would not know how to estimate it, it is not a small amount. I can't estimate how much it would cost to replenish those inventories, because some of it you wouldn't replenish. It would be outdated. In many cases, you would want more modern materiel, equipment, and weapons. But it would be a tremendous undertaking to replenish it. Perhaps we should be doing some of it now. But there has been a crash, as you know, for items required in the war so far.

Representative CURTIS. I see my time is up. I again want to thank and compliment you.

Senator STENNIS. Thank you, Congressman, for what you are doing, too.

Chairman PROXMIRE. Thank you, Congressman Curtis.

Once again a Republican and member of the committee has been very gracious. Senator Percy has deferred to Senator Symington, who has to be at the same Foreign Relations Committee executive session as Senator Sparkman. Senator Symington.

Senator SYMINGTON. Thank you, Mr. Chairman. I appreciate the courtesy of the Senator from Illinois.

I did want to come to hear our distinguished colleague from Mississippi, who, as you say, is one of the foremost authorities in this country, or any other country, on what is now going on in Vietnam.

I would congratulate the chairman on these hearings. They are most constructive both to the Congress and the people; and I commend my colleague for his frank and objective presentation this morning.

I plan to make a talk on the floor of the Senate this morning, and will read it. It is not long, two sentences.

On the first page of a 14-page statement made yesterday to the Joint Economic Committee by Assistant Secretary of Defense (Comptroller) Robert N. Anthony, Mr. Anthony makes the following observation:

At first glance Defense expenditures may not seem to constitute a major factor in our economy.

As our late colleague, Senator Robert S. Kerr of Oklahoma, used to say:

I thought I had seen and heard everything and I have been to the Dallas fair twice.

I didn't fully realize how incredible that statement was, until I heard the distinguished chairman of the Preparedness Subcommittee detail again what he had detailed so ably before in the Armed Services Committee and the Appropriations Committee, in past years.

I have a letter this morning which the able counsel of the Preparedness Subcommittee, Mr. Kendall, sent me. It is written to Senator Stennis by the Chairman of the Joint Chiefs of Staff, and says:

DEAR SENATOR STENNIS: I understand that during the course of his testimony before your committee this morning, General Bruce Holloway, Vice Chief of Staff of the Air Force, was asked why Kep and Hau Loc were authorized for strikes in North Vietnam. These two airfields were recommended for strikes by the Joint Chiefs of Staff and were approved in accordance with normal procedures. These strikes were in consonance with the concept of gradual increase in military pressure against the enemy.

I plan to write him:

With the requested recent air attacks on the airfields of Kep and Hau Loc, in your letter of April 24 to Senator Stennis, you state and I quote "these strikes were in consonance with the concept of gradual increase in military pressure against the enemy." We know the enemy is building up steadily his defenses around the meaningful military targets, defenses such as SAM sites and anti-aircraft and the hundreds of thousands of small arms. Therefore, the longer we wait to hit these military targets, the greater loss in American lives. The day before yesterday we lost heavily in planes and pilots.

Therefore, tomorrow we will lose more if we carry on with this concept of gradual increase of military pressure. Could I ask you, as Chairman of the Joint Chiefs, why you apparently plan major and rapid increases in ground forces in South Vietnam, but only these gradual increases in naval air and navy forces engaging the enemy in South Vietnam?

That is the end of the letter.

I notice, Mr. Chairman, that there are an increasing number of public officials who say we should get out of the air and concentrate on the ground. To those who have studied this war, that means we should delay any possible successful outcome in the future of the war, and increase the number of American casualties.

That is my conviction. I would be interested if the able Senator or the chairman of the Preparedness Subcommittee would have comment.

SENATOR STENNIS. I would comment briefly in this way. I agree with you wholeheartedly. I wish that I could see some other way out, but

all of us on our Subcommittee have had this problem very much on our minds for years now, and I don't believe there is any other way. I believe that we are prolonging it by waiting.

We will eventually have to do what you have outlined, and to stop the loss of life, the cost and the other suffering, we just have to go on and do it as soon as possible.

I want to thank you too for your fine remarks, Senator Symington. I have learned most of what I know about these problems from you. We have been sitting beside each other now for more than 10 years, I think. Your contribution to our subcommittee has been tremendous and I know it will continue to be.

I wish there was some other conclusion besides what we have.

Senator SYMINGTON. Mr. Chairman, I appreciate those kind but undeserved remarks. There is one other question I would ask the witness, not having had a chance to discuss it with him.

We have stopped the air attacks on North Vietnam five times. Anybody who would care to see the pictures of what they did in the last cessation, and those pictures are available, and I would be glad to arrange for members of this committee to see them, will then realize what these cessations cost us.

We have achieved absolutely nothing from these five cessations that we have agreed to with respect to air attacks. During a 4-week period we extrapolated an estimate of casualties in North Vietnam which came to less than 100 based on the best estimates of our own people and civilians in North Vietnam.

During that same period however the total casualties in South Vietnam were over 8,500.

Senator STENNIS. Yes.

Senator SYMINGTON. I wonder therefore, why nobody suggests perhaps we might have a cessation in South Vietnam, from a humanitarian standpoint, as against constantly talking about stopping in North Vietnam. Would the able Senator care to comment on that?

Senator STENNIS. Well, I have had the same observation, of course. It is a natural impulse of our people and all civilized people not to want to bomb where civilians were involved at all, but this is war, and the supplies are coming from those places that we have started to hit. Unfortunately it is impossible to avoid civilian casualties no matter how hard we try.

But on the other side of the ledger, the bombing saves the lives of Americans, South Vietnamese, and the lives of others who are fighting with us. It is necessary and vital.

I want to add to what you have said about the 4-day let truce. Mr. Chairman, those were the most revealing pictures I have ever seen, and I see a lot of them. But during the 4 days that the Senator referred to, while we were immobilized and couldn't attack, the activities on the sea, land, everywhere, even including a human chain moving supplies in some areas, were tremendous.

I urge you to take time to see those pictures. Some of them were in the newspapers, though only a few I think. But you will really see what happened. Actually the President held it up 5 days and there wasn't any activity on the fifth day, because they had completed their planning. It was an amazing thing to see.

Senator SYMINGTON. I thank the chairman and I thank the able Senator from Illinois for his courtesy.

Chairman PROXMIRE. Senator Percy?

Senator PERCY. Senator Stennis, I want you to know that what you said in 1966 about the budget was given careful attention by many of us who had the responsibility of conducting responsible campaigns. As a matter of fact, it led me in St. Louis to indicate that I felt a tax increase was necessary last year.

Senator STENNIS. Yes.

Senator PERCY. That is not a very easy thing for a candidate to public office to say, but as a result of following your figures very closely I estimated the budget deficit would be about \$10 billion, as against the 1.8 forecast. Do you think a tax increase should have been enacted in 1966, based on your best judgment?

Senator STENNIS. Well, I didn't advocate it then, so my lips are buttoned up now on what should have been done in 1966. I certainly expect to support one in 1967, unless we should make economies in other programs that would make it unnecessary.

Senator PERCY. I think we will support you in the economies, but the other one is subject to some questions. If I interpret your comments correctly, our troop forces in the approved budget was, as of the end of calendar 1967, 448,000. If the increase of 60,000 would bring us to 500,000 what does that include, when you say troop forces? Does that include the Air Force and the Navy? What would be our total estimated military force commitment then in the Vietnamese situation by your estimate by yearend, calendar yearend this year?

Senator STENNIS. The question is a little long and I will not go back to the first part. When I said I thought that by the end of this calendar year we would have perhaps 500,000 men, I was talking then in terms of men on land in South Vietnam. That would not include the men on the sea, you see, in the ships, and those in other countries, such as Thailand.

We have considerable naval forces offshore, as you know. The number, I think, is about 45,000. I don't know whether the figures have been published about other countries in Southeast Asia. I believe they have for Thailand. Not being certain, however, I would rather not mention the figure.

Senator PERCY. Senator, is it your feeling that if we have to step up 60,000 men on the ground this year, part of it being for combat, part for the pacification program, that this job could be done just as well by Philippine, Malaysian, possibly even Japanese forces, rather than just American forces?

Senator STENNIS. If you will permit me to say so, Senator, I really didn't use the 60,000 figure. I did not mention the figure that the present budget is based on. That is classified. I said that we had 438,000 over there now, that had been announced, and I discussed the possibility of there being 50,000 above the budget-planned figure. I just mention that to keep the record straight.

Now you mention the question of troops from other Asian countries. I heard you on one of the national programs Sunday, and I heartily agree with you, with reference to the need for troops from the Asiatic countries. I have said that after all, the successful stopping of the spread of communism in Asia can never be done unless it is done partly by Asian troops with the determination, willpower, and resourcefulness to do it. I think we ought to emphasize that to our people.

We have spent a world of money and training on the South Vietnamese, many of whom have done mighty well, and we deserve and need the support, as I have said, of other Asiatic nations. However, to set out now to train their armies for this fighting and equip them with everything and get them in there in appreciable numbers would take a long time.

Senator PERCY. I am wondering though, Senator Stennis, if for instance the threat against Malaysia is far less now, with the change in the situation in Indonesia.

Senator STENNIS. Yes.

Senator PERCY. It would seem to me that with those forces, who for 15 years fought guerrilla warfare, would be more experienced than our forces. These young boys going out now are fellows taken off our cities and our farms, are those who never had experience or training, never lived in the jungle. Why couldn't we get Malaysian forces in there faster than we could get in raw recruits that are being drafted?

Senator STENNIS. That is a good point. Any that are already trained would be excellent, and I think we ought to try in every way we can get, first, the diplomatic support, second, the moral support, including support in every aspect in chancelleries of the world, and finally some material and military support.

I suppose the President has tried to do those things. I think we are going to have to make a new start. Frankly, it looks to me like we are going to have to go on and win this one, and then reevaluate everything, Senator.

If we don't get Japan's help in saving the Pacific area, why I don't know that it can be saved. Japan is the most powerful non-Communist nation in all the Pacific. If we don't use them, I am doubtful of what will become of the area out there. I am not blaming them. We wrote the provisions of their constitution, but it is a fact of life. We must have them I think.

Senator PERCY. I am impressed with the estimated cost that you have of putting an American over there.

Senator STENNIS. Yes.

Senator PERCY. It runs to about \$100,000 a man. Now that is a great deal of expense. We have to average it out. A man might have a \$6 million jet or he may have a \$40,000 tank.

Senator STENNIS. Yes.

Senator PERCY. It seems to me that from the standpoint of cost, we could commit ourselves to equip these Asian forces at far less cost and certainly less cost in manpower. It seems to be that the threat to them, their security, their well-being, their right of self-determination is far greater than the threat to us back here. They are the first line out there.

Senator STENNIS. You are correct.

Senator PERCY. In returning from England with Congressman Rumsfeld, I think we were impressed with the fact that rather than our allies giving us greater support in this area, it seems there is going to be a lot less support.

There is talk in England of the British pulling out east of Suez. They now have got 40,000 forces in Singapore. What if they did pull out of Singapore? At your estimated cost of maintaining a man, that is another \$3 to \$5 billion. Is any provision made in the budget for picking up that kind of an obligation and responsibility?

Senator STENNIS. Oh, no. There is no provision to assume the burden if they pull out. I just pray that that won't happen.

But I agree with you. Our allies should give us greater support.

It is necessary to have their agreement before they will fight or before they will take part, and they are not coming as yet. The Philippines are in jeopardy if anyone is, as I see it, and they are helping some but not a great deal militarily. Somebody must be mistaken about this being a crisis or a real challenge.

Senator PERCY. Senator Stennis, could we relieve the pressure on us economically in this implied commitment we have to police the whole world, now that Europe has been rebuilt, now that they have got something really to fight for, now that the East-West tension is not nearly as great as it was under Stalin, is there some basis for believing we can gradually, with the concept and cooperation of our allies and possible mutual deescalation from East and West reduce the load and the cost that we have in Europe?

Senator STENNIS. Well, that certainly is a possibility. Frankly, I personally think this is not the right time to jump up and do this on a drastic scale. I am on the joint committee that has been appointed from Foreign Relations and Armed Services to hear the Mansfield resolution.

That generally is my position. We could cut down a good deal of the money cost, I think, without reducing the military value and power. But there has got to be a reevaluation, and that includes NATO, although I lean toward NATO as a very valuable alliance. It has been good and still can be.

I made the point in 1954, by the way, when we went into Vietnam, Senator, that we were going in alone. That impressed me. No one

went with us when we went in. Therefore, no one was directly obligated to stay with us. That is the way it is almost.

Senator PERCY. Thank you, Senator Stennis, very much.

Chairman PROXMIRE. Congressman Rumsfeld?

Representative RUMSFELD. Senator, you have heard comments from Senator Symington and Congressman Curtis and Chairman Proxmire about remarks that were made before this committee by the Director of the Budget, Mr. Schultze, and by Mr. Anthony. You on at least two occasions have considerably more accurately forecast the budget costs of the conflict in Vietnam than has the administration.

As I recall, Congressman Laird also made a statement on the floor of the House of Representatives highlighting your statement, adding some thoughts of his own on the fact that the administration was grossly underestimating the cost of the war in Vietnam.

I wonder how you can explain this. Why is it that you, Congressman Curtis who indicated he noticed the indicators changing, and Congressman Laird could considerably more accurately predict what the total costs are going to be than could the administration? Do you think they know what the costs are going to be, or is it that they don't know, and you in fact do, and Congressman Laird does? You were accurate.

Senator STENNIS. Well, I don't deserve any credit for the estimate I made. It was just an effort based on information I had to make the calculation.

Representative RUMSFELD. Was the same information available to the administration?

Senator STENNIS. Why of course, of course, and I called on them to make an estimate, because at that time I happened to be handling the appropriation bill, and was conducting hearings, and my fellow Senators were asking me how much was in the bill for the war.

Representative RUMSFELD. So they had the same information, and yet they refused to—

Senator STENNIS. Why of course. They had more information than I had. They were more capable of doing it than I was. It wasn't a question so much of them giving the wrong estimate. They just didn't give any estimate for the 2 years that you referred to, and the second year, that was covered by saying, well, they just figured it to June 30, 1967, and that was it.

Representative RUMSFELD. Did they excuse this on the basis of security, that they don't want to telegraph to the world what their anticipated efforts are going to be?

Senator STENNIS. Well, I don't know. You know as much about that as I do. I am not here to pass on the other fellow. I was just trying to give you the benefit of what little I know, and have seen, and you are going to have to make a judgment on that, gentlemen.

Representative RUMSFELD. The problem is, of course, as you indicated, for the Joint Economic Committee, and for the Members of both Houses, to try to look at the broad picture.

Senator STENNIS. You are right.

Representative RUMSFELD. With respect to the budget.

Senator STENNIS. That is correct.

Representative RUMSFELD. And try to make some judgments as we proceed.

Senator STENNIS. Yes.

Representative RUMSFELD. Using the best information we can find. It seems there is a pattern here over a period of 2 years.

Senator STENNIS. Yes.

Representative RUMSFELD. And I am pleased to see you indicate that this is at least a tighter budget.

Senator STENNIS. Yes.

Representative RUMSFELD. I assume by that you mean more accurate.

Senator STENNIS. Yes, a more accurate budget.

Representative RUMSFELD. You would guess then that the margin for error is going to be less than it was in the past 2 years.

Senator STENNIS. Oh, yes; I don't think there is any doubt about that.

Representative RUMSFELD. Given the anticipated project buildup.

Senator STENNIS. That is right, the anticipated level of operations. There is no doubt about it being much more accurate.

Representative RUMSFELD. How long can we go without figuring into the budget the replacement costs for the drawdowns on such things as the Atlantic Fleet and other military units around the world outside of Southeast Asia, from a military standpoint? I think this will give us information on future budgets.

Senator STENNIS. That is correct. I am hardly in a position to say how long we can go. I would have to have a list of the items before me, the major items at least, and get some kind of an evaluation by military men that would give better guidelines.

I know that those things have been happening in a large way from time to time, and they can't continue forever, and it is running into money. There are some replacements I am sure, but nothing like full replacement.

Representative RUMSFELD. You indicated that you didn't care to estimate the costs of these drawdowns that have not yet been replaced.

Senator STENNIS. Yes.

Representative RUMSFELD. Because you recognize, as all of us of course do, that some of the things will not be replaced.

Senator STENNIS. Yes.

Representative RUMSFELD. Excluding that category of items that wouldn't be replaced, can you give us an estimate of the drawdowns, assuming they were all to be replaced?

Senator STENNIS. Gentlemen, it is such a relative matter as to what should be replaced and how much should be replaced, in view of modern conditions, that I would hurt the cause, I think, if I tried to give an estimate in dollars. I am not informed enough to do it this

time. It would take a special study to do it. You could possibly assign a staff member to that who is knowledgeable in that field, and he could come up with some kind of a figure for you.

Representative RUMSFELD. Turning to your comments on the Reserves, Senator, do you have any figures you can give us about relative costs? I think you indicated that we could do it a lot cheaper by calling up some Reserves.

Senator STENNIS. Yes.

Representative RUMSFELD. Then we could by starting at the beginning of the funnel through the draft.

Senator STENNIS. Well, the main saving, as I understand it, in view of the condition of some of the Reserve units, would be in the area of training. In other words, we already have a good many of them trained up to a point that is not too far from being "ready." Of course, once you called them up, the costs from there on, except for training, would be just as much as for an Active Army unit, but we have already spent the money in training them.

As you know, generally speaking, you can keep a man almost up to par in a good Reserve unit at about from one-fourth to one-fifth what it costs to keep a Regular. You get from 4 to 5 to 1 for your dollar that way.

That is why I think this: That this program as a whole—the military program—has become so expensive that we are going to be driven more and more to the Reserves, keeping that talent organized and near a full readiness condition. That is the only way we can carry the staggering cost of this increased military program over the years ahead.

I wouldn't know how much we would save by calling the Reserves rather than starting with raw recruits, but it would not considerably alter the bill.

Representative RUMSFELD. You commented on the pacification program?

Senator STENNIS. Yes.

Representative RUMSFELD. I recognize the problems of discussing this, but I would be interested in your comment on this thought. The military effort over there is going to be worthwhile to the extent that we and the South Vietnamese are able to preserve whatever measure of freedom is won through the military effort. To the extent we are not able to preserve that measure of freedom, the successes from the military effort will have been for absolutely nothing. Therefore, the pacification program becomes extremely important on which I am sure we both agree.

Senator STENNIS. Yes, I do.

Representative RUMSFELD. We recognize, and you alluded to it, the difficulties we are having in South Vietnam with the pacification program. We moved through a series of different efforts, the "strategic hamlet," "the rural development," "the rural redevelopment," now

they are in this "revolutionary development cadre program"—still with very modest success only.

It is your thought from your experience in this area, and you have long experience in this area, that ultimately there is going to have to be a shift in emphasis, an escalation of the manpower in the pacification program? Is this your view, if we are going to succeed on the nonmilitary side of the war, so that the military side of the war will have been worthwhile?

Senator STENNIS. Well, in the first place, I wholly agree with you that this whole thing could be lost if we win, so to speak, militarily, and then just pull out of there and leave. In 3 to 6 months, I think, they would be cut to pieces again. So I think we are going to have to stay, not for desire of territory or anything but for protection to them.

No. 2, about the pacification program, that certainly is a problem, and it has got to be welded together in some manner. I don't know just how much a westerner can teach an Asiatic in an Asiatic country about self-government, or how fast this can be done. They have their ideas about those things and we have ours. I am beginning to feel like there is a missed connection there in some way.

Representative RUMSFELD. It certainly looks like it from the situation thus far.

Senator STENNIS. Yes. Perhaps the military uniform is not the way to do it. We have got to use it now under the circumstances. But I envision there that we will have to stay, and evolve an altogether different plan from what we are using now. That is the way I see it. You have been over there, I believe, and had a special look at this thing. I would be glad for you to comment for my edification.

Representative RUMSFELD. The conclusion I think you are reaching and I am reaching is that regardless of when the Department of Defense may assume or speculate that the war might be over, that from that date on, even if the formal military part ended today, we would still have, if we weren't to lose what has been gained, a requirement for a substantial commitment, if we were to move through this so-called pacification program. This is your conclusion.

Senator STENNIS. You are absolutely right, I think, and we ought to always make clear though that we are doing and are continuing to do that for their protection, and not for conquest, not for territory, and not for any gain. I am sure you agree with that.

Representative RUMSFELD. Yes, sir. My time is up. I certainly thank you for taking your time today.

Senator STENNIS. I thank you very much.

Chairman PROXMIER. Congressman Brock?

Representative BROCK. Senator, I have been very grateful for your testimony this morning. It has opened a lot of doors.

Senator STENNIS. Thank you, Congressman.

Representative BROCK. I will try not to take too much of your time.

Senator STENNIS. That is all right. I am glad to see you again.

Representative BROCK. I have been fascinated in skimming through and just picking up the figures from your statement. I would like to recap them and see if we can come to some conclusion.

In 1966 the military requested \$7.9 billion more than the Secretary of Defense submitted to Congress. His original figure was \$48.5 bil-

lion. Then we had to come in with a supplemental, with two supplementals totaling \$14-plus billion, actually considerably more than even the services originally requested, taking it up to \$63 billion.

Senator STENNIS. Yes. Of course, that was the year the war escalated, you know, in calendar year 1965.

Representative BROCK. That is correct. In 1967 they requested \$12.9 billion more.

Senator STENNIS. Yes.

Representative BROCK. More than the Secretary of Defense submitted to the Congress, and as a matter of fact, our supplemental for that year was exactly that amount of money, \$12.9 billion. We ended up spending \$72.8 billion.

For fiscal 1968 they requested \$17.6 billion more than was authorized in the budget. The budget figure was \$73.1 billion. Congressman Curtis has pointed out that if we just maintain it at the current level, it will be \$7.3 billion more than the request, or \$80.4 billion.

Senator STENNIS. Yes.

Representative BROCK. And with the projections that General Westmoreland has made and that you have made today, I think it is fairly reasonable to assume that \$6.6 or \$6.7 billion per month may be low. We have seen it run a continual increase in monthly cost, and if that is just the starting point, we could be another \$4 to \$10 billion above \$80 billion.

The reason we are engaged in these hearings is that every Member of Congress has a responsibility in voting on any bill to take it within the context of its impact on the total economy. Only as we know what deficit is going to be created by defense spending, only then can we judge the merit and the relative priority of nondefense spending.

Senator STENNIS. Yes.

Representative BROCK. We have a specific responsibility, and I am concerned that this information, or lack of it, which we have had in the past had created some of the economic difficulties we have today.

Now not every Member unfortunately will take the opportunity to read your testimony, but is there any way in which we can effectively force a more accurate picture being brought to the attention of the Members of Congress?

For example, it has been suggested that maybe a quarterly review of Defense expenditures and costs should be made available to this committee or to your committee. Is this something that would address itself to the problem we face?

Senator STENNIS. Well, I think it would be helpful; yes. The Congress has the power over these appropriation bills; there is no question about that. If we just stop them and don't move them, why something must happen.

Representative BROCK. Congress seems to have the power over the appropriations, but we don't seem to have the power over the information.

Senator STENNIS. Yes; that is right.

Representative BROCK. That makes the appropriation valid and I am concerned over this lack.

Senator STENNIS. To stop the progress of the bill would be one way to get a more complete presentation of the facts as they exist. I am not

suggesting that we be arbitrary, but we are entitled to more information, and I think we are getting far more information for fiscal 1968, and that it is more accurate and realistic, as I have emphasized.

Representative BROCK. If it is more realistic, then its realism is based upon a realistic hope that there will be no escalation.

Senator STENNIS. Yes; that is a part of the planning of the budget as I understand it. It is valid only if there is no appreciable escalation of the war in numbers, and so forth.

Representative BROCK. As I understand your comment on the Mekong Delta problem, we decided to go in because we felt they were unable to cope with its themselves, the Asians. I have heard that this operation would take an absolute minimum of 50,000 additional troops and that is an absolute minimum, and some estimates have been considerably higher.

I have also heard that it might take an additional 50,000 just to beef up the Marines below the DMZ.

Senator STENNIS. Yes.

Representative BROCK. If this were to become an explosive area. Now that to me adds up to 100,000 additional men, if those two should become serious problem areas.

Senator STENNIS. Yes.

Representative BROCK. Am I wrong in my estimates, or is this something we should not be concerned about?

Senator STENNIS. Well, we should be concerned about it. I have already given my estimate that in my judgment by the end of this calendar year, we will probably have 500,000 men in Vietnam. I just stand on that statement. That is about as accurate as I can be, and I mentioned the Marines and also the Mekong Delta area as part of my thinking.

Representative BROCK. One final question in a different area. You discuss the fact that we have not completely replaced the inventory that we are using, except in the area of long-range procurement of helicopters and things such as that, long-term procurement items.

Senator STENNIS. Yes.

Representative BROCK. I have been very concerned in the last few years over the fact that we have depleted the equipment available to our Reserve and National Guard units.

Senator STENNIS. Yes.

Representative BROCK. Are we beginning to correct that situation or is it still—

Senator STENNIS. Well, they have suffered very severely, and there has been no appreciable correction as a whole yet except in the areas where the units are being specially prepared in training for a possible callup. But, by and large, there has been no repair, appreciable repair of the damage, and that is a big item for the future, too.

Representative BROCK. Senator, you are aware that any organization, government or business, can minimize its out-of-pocket cost by utilizing inventory.

Senator STENNIS. Yes.

Representative BROCK. But there has to come a day of reckoning if they are going to stay in business.

Senator STENNIS. That is right.

Representative BROCK. Are we taking any gamble with the security of this country by reducing these inventories, or are they noncritical inventories?

Senator STENNIS. Well, we have a lot of strength in addition to the strength we are using in the war in Vietnam, but the more of our forces that we display there and the more we stretch out and use up our reserves and materiel, the weaker we will be if we should have an attack somewhere else. That has been something we have been thinking about a lot.

These drawdowns and all have affected the situation. I don't want to leave the impression that I think now that we are in a critical shape, because when I talk to you, I would be talking to our possible adversaries as well. In addition, we have a lot in reserve, but I don't think we can just go along happily assuming that we could carry out all our commitments alone.

That is one reason why I agree so completely with Congressman Rumsfeld about the Asiatics, and with Senator Percy, too.

Representative BROCK. I think we all share that desire.

Senator STENNIS. Yes.

Representative BROCK. Thank you very much, Senator.

Senator STENNIS. Thank you.

Chairman PROXMIRE. Thank you, Mr. Brock.

Senator Stennis, I do have one brief question. I apologize.

Senator STENNIS. That is all right, Senator.

Chairman PROXMIRE. All the discussion has been around the possibility of a 50,000-troop increase above the estimate in the budget. Many well-informed people in and out of Congress have estimated 100,000. I know that is not your figure. If it is 100,000, can we simply double your figure and say it would be not \$5 billion, give or take a billion dollars, but \$10 billion, give or take \$2 billion? In other words, can we just double that or is there some other factor that would be involved here?

Senator STENNIS. Well, my figures now are based upon an estimate of 50,000 men above the budget as planned, you see.

Chairman PROXMIRE. I understand.

Senator STENNIS. The added cost would be mainly for training, transport, and support.

Chairman PROXMIRE. Right.

Senator STENNIS. Yes, generally if you double that to 100,000, it would take almost twice as much money as I estimated, although maybe not fully twice as much; yes.

Chairman PROXMIRE. Senator Stennis, I want to thank you for a very fine, I would say a brilliant presentation. You are most, most helpful to us this morning. You have certainly immensely enlightened us, and have helped these hearings greatly.

Thank you very much.

Senator STENNIS. I thank you, Mr. Chairman, very much. I really thank you for inviting me. It was your invitation, not my solicitation, as you remember. I am delighted though to meet with you and the

membership of this group that I think is making a real contribution. Something has got to be done, and it is the congressional assertion of responsibility which is needed, as I see it. We have got to do more of it.

Congressman CURTIS, may I just say this. The level there of expenditures that you gave, did that figure for \$7.3 billion over the budget—I believe Congressman Brock used that figure—

Representative CURTIS. I think what he was doing was taking your expenditure figure.

Senator STENNIS. Oh, yes.

Representative CURTIS. Of \$7.3 billion plus and then projecting out the expenditure figure at a level of \$6.7 billion times 12 gives us \$80.4 billion.

Senator STENNIS. Yes.

Representative CURTIS. And that is where the \$7 billion comes from.

Representative BROCK. That is correct.

Chairman PROXMIRE. Is there a word of caution in order here? It is very hard to take a 1-month figure.

Senator STENNIS. Yes.

Chairman PROXMIRE. Or a 2-month figure, and then multiply it by 6.

Senator STENNIS. Yes.

Chairman PROXMIRE. Because there are seasonal aspects to it.

Senator STENNIS. Yes.

Representative CURTIS. Let me comment on that. I considered that when I took this monthly figure in September 1965. Of course this might be so, but the interesting thing is that Government expenditures really have no seasonal aspect, month by month, except the month of June.

Senator STENNIS. Yes.

Representative CURTIS. Right before that magic date you see something happen. This was quite interesting and, of course, this was the answer of the administration, but it turned out that that expenditure level was quite accurate.

I did the same thing in October last year, when the President sent up the suspension of the investment credit.

Senator STENNIS. Yes.

Representative CURTIS. I described again the way I look at these expenditure figures, and project them forward, and again they argued that the monthly figure had to be treated with caution.

Indeed it does. But I would observe that going back several years, there seems to be no pattern of seasonality in monthly expenditures. The real pattern is what we are going to see, and I think very clearly.

This has been escalation. The President hasn't told us this. This has actually occurred. We are now reading a figure that indicates what happened say about a month and a half ago.

Senator STENNIS. Yes. Well, I think your remarks are very timely, but, if there is no stepup in the manpower, I wouldn't want to say that I believe now that there is going to be a \$7.3 billion figure over the budget militarywise, although I believe the budget is very tight and it will run over some.

When you escalate the war, as you said, you are going to escalate the cost and it could very well run 7.3, even without putting any more

men in there. It could. But it would require a considerable escalation I think to make it go that high.

Thank you very much, gentlemen.

Chairman PROXMIRE. Thank you, Senator Stennis.

Our next witness is a man who should certainly get credit for his patience as well as his great ability, Mr. Archibald Alexander of the U.S. Arms Control and Disarmament Agency.

Mr. Alexander, we are very happy to have you come before us from a Government agency which is of extreme interest to all of us. I understand you have been doing some real studies in this area of what happens to the economy when the defense is reduced. We are very happy to have you.

STATEMENT OF HON. ARCHIBALD S. ALEXANDER, ASSISTANT DIRECTOR, U.S. ARMS CONTROL AND DISARMAMENT AGENCY

Mr. ALEXANDER. Thank you Mr. Chairman. If it is agreeable to you, I will read quickly through my statement, which will take about 10 minutes.

Chairman PROXMIRE. Fine.

Mr. ALEXANDER. Mr. Chairman, we thank the committee for the opportunity to appear before it in connection with its current hearings on the effect of the Vietnam war on the U.S. economy. As suggested in your letter inviting me to appear today, I shall address myself primarily to the arms control and disarmament aspects of the broad subject you are considering, since these are the aspects in which we were given responsibilities by the act of Congress which set up our Agency in 1961.

Our Agency's special interest in the Vietnam war is that upon its termination, the domestic economic consequences may be expected to be instructive as to the consequences that would follow an arms control and disarmament agreement resulting in reduced defense spending.

Section 31(h) of the Arms Control and Disarmament Act gives the Director of our Agency authority to conduct research and other studies on the "economic and political consequences of arms control in disarmament, including the problems of readjustment arising in industry and the reallocation of national resources."

The research in this field is necessarily directed at a moving target. No positive postulations can be made as to the time and kind of a future arms control agreement. Thus, the objective must be to examine a variety of possible future contingencies, and to arrive at suggestions for methods of dealing with their economic consequences. Since 1961, most of the arms control agreements have resulted in little impact on defense spending. However, when the Vietnam cease-fire occurs, it should provide an excellent sample, in real life, of what happens in the economy, and of the efficacy of what is done by remedial action. Thus our Agency is bound to follow this aspect of Vietnam with the utmost attention.

It so happens that a certain amount of research has been done, for or by our Agency, which may be useful to our Government in deciding what to do in order to minimize dislocation and make maximum use of

opportunities when defense spending goes down after the Vietnam war is over.

Before giving you a general description of this research, which is listed and described in greater detail in exhibit A which I file with my prepared statement, I should like to make two general observations about the research and its premises.

The first observation, based on the experience of the United States in the years since the end of World War II, is that we are likely, over a period of time, to run into some periods of increasing, and other periods of decreasing, defense expenditures, according to whether our security and that of the free world are more or less menaced. Thus, in order to maintain national and international security, we shall have to plan our economic moves so as to be prepared both for increases and for decreases in defense spending. Flexibility in this regard, and in regard to measures dealing with the economic consequences of defense spending, must be a premise of our thinking. We cannot plan to travel indefinitely in one direction on a one-way street, whichever way it is headed.

The second observation, as to reductions in defense spending, is that, since we do not have the gift of prophecy, and must develop knowledge and policy alternatives for a variety of degrees of reductions, we had to ask the researchers, in appropriate cases, to make several assumptions regarding the severity of the reductions. For instance, in preparing the request for proposals on some of the industrial and regional impact research, we have provided assumptions concerning the severity of the decline in defense spending. These assumptions were made after discussion with some of the other departments and agencies of the Federal Government, and taking into account the kinds of arms control agreements which might be reached.

Our research on the economic consequences of arms control and disarmament has been divided, for convenience, into four main categories. These may be called:

1. Measurement of impact;
2. Impact on industry;
3. Impact on employees; and
4. Impact on regions and communities.

The research, almost all contract research, which I have listed in exhibit A, has been classified in this way, although some of the research necessarily covers more than one class of impact. For instance, regional impact necessarily takes into account manpower and industrial problems peculiar to the region.

MEASUREMENT OF IMPACT

The first group of studies attacks the problem of measurement of impact, in terms of geography, industry, and people, which would result from termination of particular kinds of items of defense expenditures. It was early agreed by those who considered this problem that unless it were solved, valuable leadtime would be lost in putting into effect any measures that might be needed to supplement existing economic and social processes in facilitating transition for regions or communities, employees, and industries or firms. Much of the research

in this field has been done through or with the Department of Defense, as well as in collaboration with the Departments of Commerce and Labor. I think it is fair to say that there has been perceptible progress in improving the data needed for this kind of economic early warning system, through which much more remains to be done. An example of progress is the so-called MA-175, page 1 of the exhibit, a census of shipments to Government agencies by defense-oriented industries, made by the Census Bureau as a supplement to the Bureau's regular Census of Manufactures. This census has been done for 1963, a year preceding the Vietnam buildup, and within a relatively short time 1965 will have been covered, covering a period when the buildup had begun. These forms now show for the first time defense shipments by States and industries, and including subcontractors. This helps determine probable impact, when combined with the knowledge of which industries are involved in which procurement program.

Further work is underway to improve the capability of the Federal Government to trace down the impact of termination of defense contracts.

IMPACT ON INDUSTRY

Three industries heavily involved in defense have been the subject of contract research designed to give us understanding of the effect on the industries of reduced defense demand. These are the electronics, page 6 of the exhibit; shipbuilding, page 8 of the exhibit; machine tool industries, that is on page 13.

The first two have been completed and have been widely distributed, not only within the Government but to the public and to members of the industry. Both are available at the Government Printing Office.

Another interesting study in this group was a case study of the experience of 12 defense-oriented firms which attempted to diversify into nondefense work, page 9 of the exhibit. Six examples were of firms that had succeeded in this effort and six of firms that had not. The size, geography, and kind of manufacturing were varied. The report contains recommendations on Federal policies and guidelines for diversification planning by defense firms. It also has a set of instructional guides for use, in conjunction with the report, in management seminars on diversification. This has been summarized in the Harvard Business Review and quoted elsewhere, and is available at the Government Printing Office.

A current research effort is underway on uses of defense technology for civilian purposes.

IMPACT ON EMPLOYEES

In studying the impact on employees, we decided to examine three cases of defense layoffs in different parts of the country. First was the layoffs after the Dynasoar contract cancellation, affecting employees in Seattle, page 14, and the layoffs at the Martin Co. at Denver, page 16, and at the Republic Aviation facilities on Long Island, page 17.

These studies will be compared analytically in a fourth study which will be called "Analysis of Defense Worker Reemployment." This is described on page 19. These four studies should show us, based

on actual experience, which types of defense workers had difficulty securing reemployment and what factors seemed to help them and what to hinder them.

We have also underway two studies dealing with the transferability of skills from defense to civilian-oriented production, pages 20 and 21. The purpose of this effort is to identify opportunities in the non-defense sector of the economy for defense engineers and highly specialized technicians and blue collar workers. The resultant information can be used to help ex-defense workers find new employment and at the same time to promote the efficient utilization of the Nation's skilled manpower.

IMPACT ON REGIONS AND COMMUNITIES

As you know, there is uneven geographical distribution of defense spending in the United States. Some States, some smaller regions, and some communities are almost unaffected by defense spending, whereas others are greatly dependent on it. We have therefore designed research, and we have received some useful results, in the field of community or area readjustment to reduce defense spending. One contractor examined Baltimore, Seattle and southeastern Connecticut. page 23 of the exhibit. This study examined the potential impact of assumed reductions in defense spending and estimated the economic effects in the metropolitan areas. It also provided a voluminous checklist of policies and programs which should be considered, in order to facilitate adjustments. The checklist covered things which might be done by the Federal Government, State and local governments, private industry, labor, et cetera.

One result of the portion of the study that dealt with southeastern Connecticut was the formation of a regional economic development commission by the 16 or so communities involved and a proposal by this commission to the Federal Government for financial assistance in preparation of an economic diversification plan and in evaluating the effectiveness of the plan and its implementation after the latter had been carried out by the local authorities. I am glad to say that the Department of Commerce, with some financial participation by our Agency, has made a contract for this purpose, after appropriate coordination with the New England Governors, and so forth. If a successful plan is developed for this heavily defense dependent region, it should be of value as a prototype or guide for other parts of the country.

Another study is one which deals with the consequences of the closing of some of the bases covered by Secretary McNamara's announcement in late 1965, page 27 of the exhibit. This study will examine the results for the people employed on the bases at the time of closing, for the physical installation, and for the community or area, including local commercial or industrial establishments involved in supplying the bases. We selected military bases in Pennsylvania, the South, Kansas and the Far West, some near large communities and some relatively isolated.

In conclusion, I should like to mention that our Agency in every instance coordinated proposed research in advance with other ap-

appropriate departments and agencies of the Government—for instance, the Departments of Defense, Commerce and Labor and the Council of Economic Advisers.

Since the establishment of the Committee on Economic Impact of Defense and Disarmament, created by President Johnson under the chairmanship of Dr. Gardner Ackley in late 1963, this coordination has been effected in accordance with the Committee's policy as stated in its report dated July 1965.

Now that our Agency has, by itself and with the help of other parts of the Government, obtained results from research into a number of aspects of the total problem, it seems to us that we should prepare integrated contingency plans for dealing with the various contingencies which might arise as the result of reduced defense spending due to arms control and disarmament. And we believe that much of the research which I described will be useful in connection with contingency planning for the economic impact of the Vietnam cease-fire.

(Exhibit A to the statement of Mr. Alexander is as follows:)

UNITED STATES ARMS CONTROL AND DISARMAMENT AGENCY

RESEARCH ON DOMESTIC ECONOMIC IMPACT OF DISARMAMENT
(As of April 21, 1967)

EXHIBIT A

(Referred to in prepared statement of Archibald S. Alexander, Assistant Director, U. S. Arms Control and Disarmament Agency, before the Joint Economic Committee April 25, 1967.)

- I Measurement of Impact
- II Impact on Industry
- III Impact on Employees
- IV Regional or Community Impact

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I

MEASUREMENT OF IMPACT

ACDA/E/RA-7

CONTRACTOR: Various contractors through Department of Defense

TITLE: Studies to Measure the Economic Impact of Defense Spending

DESCRIPTION: These cover a number of efforts to develop data and data systems which can be used to improve knowledge of the impact of defense purchases of goods and services on the economy. Their broad purpose is to see how such purchases, in aggregate or broken down by military program, contribute to the economic activity levels of industries and regions (or communities) and to what extent sufficiently stable relationships exist for use in predicting the industrial or regional impact of changes in defense purchases of goods and services. The data are of interest to ACDA for purposes of estimating the impacts of disarmament and to other agencies in estimating the impacts of other changes in defense spending (Office of Business Economics of the Department of Commerce, the Bureau of Labor Statistics, the Department of Defense).

Efforts thus far include the following:

- (1) A census (MA-175) of shipments to government agencies in 1963 by defense-oriented industries conducted by the Census Bureau; the survey covers shipments to or receipts for work done for Federal agencies and their contractors or suppliers; the survey was supplemental to the 1963 Census of Manufactures; the results of the survey are contained in Special Report MC 63 (S) - 2 of the Census Bureau issued March 1966, available from the Superintendent of Documents, Government Printing Office, Washington, D.C., for \$.30 per copy. The report shows value of shipments and receipts by industry groups and geographic areas. A similar survey covering 1965 shipments is contemplated.

- (2) Contract work by CEIR on imputing value added and employment from the Census survey data and on defense procurement of goods and services not covered by the survey.
- (3) Contract work by Research Analysis Corporation on tracing the broad impact of the DOD Five-Year Force Program and on methods for tracing industry inputs to major weapon systems.
- (4) Contract work by Stanford Research Institute on tracing the geographic impact of R&D expenditures.
- (5) Tracing of geographic impact through regular plant reporting methods developed by DOD.

Modifications and new initiatives are planned under the FY 1967 program.

DATE OF COMPLETION: Continuing

ACDA/E-59

CONTRACTOR: University of Michigan (Professor Daniel Suits).

TITLE: Survey of Economic Models for Analysis of Disarmament Impacts.

DESCRIPTION: This study involves a broad survey of the uses of economic models for predicting the economic impacts of arms control and disarmament and of possible offsetting programs of tax reduction or public expenditures. The survey covers econometric models, input-output analysis, regional models, and microeconomic simulation. The study considers the relative desirability of relying upon existing models (e.g., those of the University of Michigan Research Seminar in Quantitative Economics, the University of Indiana Business School, the Wharton School and the Brookings Institution) rather than developing a new ACDA model.

DATE OF COMPLETION: July 1965

ACDA/E/RA-31

CONTRACTOR: Census Bureau, Department of Commerce

TITLE: Shipments by Defense-Oriented Industries, 1965

DESCRIPTION: This is for work on the MA-175 survey conducted by the Census Bureau for shipments to Government by defense-related industries in 1965 and is an extension of the work covered in MC 63 (S) - 2 (see ACDA/E/RA-7). The survey of 1965 shipments covered a considerably larger number of industries than the 1963 survey. ACDA's contribution to the 1963 survey was part of its total contribution to the Department of Defense for economic impact studies; the Agency's contribution to the survey of 1965 shipments was made directly to the Census Bureau.

DATE OF INITIATION: August 1966

ACDA/E-125

CONTRACTOR: Research Analysis Corporation

TITLE: Economic Impact Analysis: Minuteman II and Other Weapons Systems

DESCRIPTION: Through contract analysis, plant visits, etc., the project will endeavor to identify prime contractor and first-tier subcontracting by 4-digit SIC for the Minuteman II weapon system. The project also will identify insofar as possible the location of output of prime and first-tier subcontractor plants for this system and for other systems being studied under contract to the Department of Defense and the Bureau of Labor Statistics.

DATE OF INITIATION: December 1966

II

IMPACT ON INDUSTRY

ACDA/E-48

CONTRACTOR: Battelle Memorial Institute

TITLE: The Implications of Reduced Defense Demand for the Electronics Industry

DESCRIPTION: This study analyzed the problems and opportunities for the electronics industry under conditions of reduced defense demand. In addition, conclusions were drawn pointing toward appropriate action to minimize adjustment difficulties and to develop alternative marketing opportunities.

This study (1) characterized the electronics industry as it is presently composed, (2) examined the effects on the industry of major reductions in military demand for its output, (3) considered problems of the adjustment of industry resources to different patterns of output and marketing, (4) examined efforts made thus far by the industry to reduce its dependence upon military demand and (5) provided a planning guide which suggests possible actions to be taken by government, industry and labor to ease the impact of defense demand reductions. This study (ACDA Publication number 28) is available from the US Government Printing Office.

DATE OF COMPLETION: September 1965

ACDA/E/RA-16

CONTRACTOR: Supplemental Contract, Bureau of the Census, Department of Commerce

TITLE: Geographic Tabulation of Selected Electronic and Associated Products

DESCRIPTION: The Bureau of the Census prepared special geographic tabulations of data on electronics and

associated projects, based on the Bureau's Current Industrial Reports Series M36N. The data were made available to the Battelle Memorial Institute for use in connection with contract ACDA/E-48.

DATE OF COMPLETION: August 1965.

ACDA/E-66

CONTRACTOR: Midwest Research Institute

TITLE: Industrial Conversion Potential in the Shipbuilding Industry

DESCRIPTION: Based upon the evaluation of key economic factors, this study identifies 55 industries (4-digit SIC's) whose products offer conversion opportunities for the shipbuilding industry. The 55 industries were selected from an initial list of 160 industries which appear to have resource requirements and operating characteristics similar to those of the shipbuilding industry.

The 55 industries are largely in the areas of structural metals, transportation equipment, and industrial machinery. The study reviews their "conversion attractiveness" for shipbuilders in terms of (1) comparability (labor skills, technology, marketing), (2) financial requirements and profitability, and (3) size and growth characteristics. All 55 industries, however, are represented as providing going opportunities for shipbuilders - that is, opportunities which would entail no dismantling or scattering of labor, equipment or other resources.

DATE OF COMPLETION: May 1966

ACDA/E-68

CONTRACTOR: Denver Research Institute

TITLE: Defense Industry Diversification

DESCRIPTION: This study describes and analyzes the experience of twelve defense-oriented manufacturing firms in attempting to diversify into non-defense, non-aerospace markets. The analysis is intended to contribute understanding of the management problems facing defense firms in attempting to "branch out into unfamiliar, commercial markets"; diversification experience is assumed to have value for clarifying problems of industrial conversion for defense firms in the event of substantial reductions in the defense market. The study was undertaken on the assumption that diversification is a useful step preparatory to conversion.

The twelve case studies, eleven of which identify the names of the firms involved, include experiences of diversification attempts through internal product development and through acquisition. The report describes successful and unsuccessful attempts to overcome problems involving differences between defense and commercial business such as marketing methods, cost structures, product design and management attitudes and practices. The study submits recommendations for Federal Government policies on defense diversification and guidelines for diversification planning by defense firms. In addition to the report, it provides a set of instructional guides for use with the report in management seminars on diversification. The study is contained in ACDA Publication No. 30, for sale by the Superintendent of Documents, US Government Printing Office, for \$2.25 per copy.

DATE OF COMPLETION: January 1966.

ACDA/E-103

CONTRACTOR: Denver Research Institute

TITLE: A Preliminary Examination of the Public Sector
Market for the Systems Capability of Defense Firms

DESCRIPTION: The study will examine preliminarily the potential application of the so-called "systems capability" of defense industry to non-defense non-aerospace projects in the public sector of the economy--that is, projects involving problems handled by state or local governments and/or the Federal Government. Through a systematic literature search and interview program, the contractor will endeavor to identify (1) the nature of the systems capability, (2) the extent to which it is unique to defense-aerospace firms, (3) the non-defense public sectors which appear to offer the best opportunities for application of the systems capabilities of defense firms, (4) differences between systems and non-systems approaches to public sector problems and (5) the implications of the adaptation of defense systems technology to non-defense, non-aerospace public sector problems for reducing economic dislocations from disarmament.

DATE OF INITIATION: April 1966

ACDA/E/RA-15

CONTRACTOR: Northeastern University, through the Small Business Administration

TITLE: Defense Conversion Problems of Small R&D Firms

DESCRIPTION: Under this arrangement, the Agency has contributed funds in support of a contract let to Northeastern University by the Small Business Administration. The Department of Defense has contributed an equal amount to the project. The contract calls for research to determine the management and marketing problems, possible solutions, and growth potentials of small engineering and R&D firms in New England who will be affected by defense conversion. Original case material will be developed, built around defense conversion problems and directed towards the needs of the owners and managers of businesses. Instructional material for use in a management workshop will also be developed.

DATE OF COMPLETION: August 1966

ACDA/E-118

CONTRACTOR: Analytic Services, Inc.

TITLE: Obstacles to Technological Innovation

DESCRIPTION: The purpose of this study is to develop insights into the problems of accelerating the rate of technological innovation in the public sector, bearing in mind the impact of disarmament on the availability of financial and technological resources.

The study will analyze the process of technological innovation in the following cases: (1) the application in the United States of nuclear energy to electric power generation, (2) high-speed intercity ground transportation--the so-called "Northeast Corridor" project, and (3) intra-urban rapid transit--the San Francisco Bay Area Rapid Transit System. Obstacles having a rather broad applicability to the public sector will be identified and evaluated. These will be considered in terms of their implications for innovation in the public sector, particularly in the context of a significant shift of resources from defense to non-defense activity. The study further will consider the kinds of public policies most likely to overcome such obstacles.

DATE OF INITIATION: June 1966

ACDA/E-130

CONTRACTOR: Resource Management Consultants, Inc.

TITLE: Defense Dependency of the Machine Tool Industry
and Disarmament Implications

DESCRIPTION: This study is designed to ascertain the defense dependency of this major capital goods producing industry as indicated by (1) the share of total machine tool shipments and advanced technology tools destined to be primarily used to produce defense items, (2) the size, composition and handling of the extensive government inventory of Machine tools. The influence of defense demand on the marketing and pricing practices of the industry, and its technological advancement can then be analyzed. The investigation of defense dependency and past industry actions will provide the basis for analyzing the implications of arms control and disarmament on the industry. Specifically, the areas of interest include (1) technological advancement, (2) the labor force and impacted communities, and (3) possible alternate markets. Recommendations for public policies to minimize adjustment difficulties will be based on the foregoing analysis.

DATE OF INITIATION: March 1967

III

IMPACT ON EMPLOYEES

ACDA/E/RA-13

CONTRACTOR: State of Washington Employment Service,
through Department of Defense

TITLE: Case Study of the Effects of the Dyna-Soar Contract
Cancellation

DESCRIPTION: This is the first of three studies on the reemployment experience of workers laid off at defense plants. The other two studies deal with layoffs at the Martin Company, Denver plant, and the Republic Aviation Corp., Long Island plant (see ACDA/E-67 and ACDA/E-69).

The study was designed to cover the reemployment experience of 5,229 workers of the Boeing Company, Seattle, who were laid off between December 1963 and March 1964 due to the cancellation by the Department of Defense of the contract for manned space vehicle Dyna-Soar. Information on these experiences was obtained by a questionnaire mailed by the Washington State Employment Security Department under contract with the Department of Defense. The questionnaire was first mailed in May 1964 and produced a 72% response. The questionnaire was mailed again in August 1964 to the respondents to cover experience in the May-August 1964 period and produced a 77% response. The questionnaires sought information on the personal and work characteristics of the workers, on their labor force status at the time of mailing the questionnaires, on their post-layoff experience in regard to employment and unemployment (including types of occupations, job locations, and new earnings), on obstacles encountered in seeking new employment, and on sources of assistance utilized in obtaining new employment or in maintaining income. The data have been tabulated to reflect the more important relationships bearing upon occupational mobility.

The report is contained in ACDA Publication No. 29, available from the Superintendent of Documents, Government Printing Office, Washington, D.C., 20402,

at \$1.50 per copy. A summary is contained in ACDA Research Report 65-3; the summary, entitled "The Dyna-Soar Contract Cancellation, A Statistical Summary" was prepared by Robert Brandwein of the ACDA Economics Bureau staff. A similar summary by Mr. Brandwein is contained in the October 1965 issue of the University of Washington Business Review and the October 1965 issue of the United States Department of Labor's Monthly Labor Review.

DATE OF COMPLETION: June 1965.

ACDA/E-67

CONTRACTOR: Martin Marietta Corporation

TITLE: Study of the Reemployment Experience of Disemployed
Martin Company Workers

DESCRIPTION: This is one of three studies on the reemployment experience of workers laid off at major defense plants. The other two involve layoffs at the Boeing, Seattle and Republic Aviation, Long Island plants (see ACDA/E/RA-13 and ACDA/E-69).

The study is designed to cover the reemployment experience of some 4,000 workers laid off at the Martin Company plant in Denver during the first nine months of 1964. Information on these experiences has been obtained by a questionnaire mailed to the former Martin workers. There has been about a 75% response rate in connection with the questionnaire. Like the questionnaires used in the Boeing and Republic studies, information has been sought on the personal and work characteristics of the displaced workers, on their labor force status at the time of mailing the questionnaire, on their post-layoff experience in regard to employment or unemployment (including types of occupations, job locations, and new earnings), on obstacles encountered in seeking new employment, and on sources of assistance utilized in obtaining new employment or in maintaining income. The data have been tabulated to reflect the more important relationships bearing upon occupational and geographic mobility.

The data have been interpreted broadly in terms of the characteristics of the local labor market.

DATE OF COMPLETION: December 1966.

ACDA/E-69

CONTRACTOR: State of New York, Department of Labor, Division of Employment

TITLE: Studies of Reemployment Experience of Disemployed Republic Aviation Corporation Workers and of Defense-Non-Defense Job Relationships. 2 vols.

DESCRIPTION: This is one of three studies on the reemployment experience of workers laid off at major defense plants. The other two involve layoffs at the Boeing, Seattle and Martin, Denver plants (see ACDA/E/RA-13 and ACDA/E-67).

Part I of this study, "Reemployment Experience of Disemployed Republic Aviation Corporation Workers," is designed to cover the reemployment experience of some 10,000 workers laid off at the Republic Aviation Corporation plant at Farmingdale, Long Island, New York, between November 1963 and October 1964. Information on these experiences has been obtained by a questionnaire mailed to the former Republic workers. There has been about a 50% response rate in connection with the questionnaire. Like the questionnaire used in the Boeing and Martin studies, information has been sought on the personal and work characteristics of the displaced workers, on their labor force status at the time of mailing the questionnaire, on their post-layoff experience in regard to employment or unemployment (including types of occupations, job locations and new earnings), on obstacles encountered in seeking new employment, and on sources of assistance utilized in obtaining new employment or in maintaining income. The data have been tabulated to reflect the more important relationships bearing upon occupational and geographic mobility.

The data have been interpreted broadly in terms of the characteristics of the local labor market.

ACDA/E-69 (cont'd)

Part II of this study was completed in December 1965. This report, "The Transferability of Defense Jobs to Non-Defense Occupations," describes the experimental efforts of the New York State Department of Labor to identify occupations in the non-defense sector of the economy which are similar to the occupations in the Republic Aviation Corporation work force. The work involved classification of the Republic job titles into Dictionary of Occupational Titles Codes, identification of those occupational codes found predominantly in the aircraft or other defense industries and the search for non-defense occupations involving similar skills, materials and working conditions. The methodology developed in the study was found to be effective in developing relationships between semi-skilled and skilled occupations but ineffective for developing relationships among scientific, engineering and similar professional occupations. The report contains recommendations for utilizing the Dictionary of Occupational Titles in planning for future work force reductions in the defense industry. An appendix to the report, entitled "Job Relationships Between Defense and Non-Defense Occupations" contains the lists of specific non-defense occupations found to be related to the defense-oriented semi-skilled and skilled occupations at Republic Aviation.

DATE OF COMPLETION: August 1966

ACDA/E-113

CONTRACTOR: University of Colorado

TITLE: Analysis of Defense Worker Reemployment

DESCRIPTION: The purpose of this project is to analyze the problems of reemployment for defense workers under mass layoffs based upon the results of three surveys of the reemployment of defense workers.

Using data and materials from the studies of mass layoff experiences at Boeing, Martin and Republic (ACDA/E/RA-13, ACDA/E-67, and ACDA/E-69), the study will analyze and compare reemployment results for those covered by the surveys. Inferences will be developed as to factors bearing upon geographic and occupational mobility.

DATE OF INITIATION: June 1966

ACDA/E-102

CONTRACTOR: Department of Employment, State of California

TITLE: The Potential Transfer of Industrial Skills from Defense to Non-defense Production

DESCRIPTION: The purpose of this project is to gain insight into problems of retraining semi-skilled, skilled and technical workers (other than professional workers) that may arise as a result of substantial reductions in defense spending. The study will analyze the occupational composition of the work force of two plants in California which manufacture defense missile systems and subsystems to determine the extent to which the skills utilized are potentially transferable to occupations in non-defense, non-aerospace production. Included in the study will be an analysis of retraining problems displaced workers may face and an analysis of the long-range demand for the non-defense, non-aerospace occupations which are identified as being similar to the occupations in the subject missile plants. In addition to its use as an aid to estimating the importance of retraining in facilitating economic adjustment to disarmament, the results of the study will be used to identify reemployment opportunities for laid-off defense workers.

DATE OF INITIATION: April 1966

ACDA/E-110

CONTRACTOR: Stanford Research Institute

TITLE: Transferability and Retraining of Defense Engineers

DESCRIPTION: This study will attempt to assess the skill and work environment barriers to the transfer of engineers from defense to commercial engineering work. Data will be gathered from engineers and managers in companies having both defense and commercial activities to identify any significant obstacles and evaluate the role re-training or re-education might play in overcoming them.

DATE OF INITIATION: June 1966

Expect to Fund in FY 67

TITLE: Pensions, Severance Pay, and Related Benefits for Laid-off Defense Workers

DESCRIPTION: The purpose of this study is to determine whether it is feasible to identify standards of adequacy of pension rights, severance pay and related benefits for workers of defense contractors. The study will focus on older workers with long-term job tenure who would be laid-off because of defense reductions resulting from arms control and disarmament. The topics to which the researcher will address himself include:

- (1) Comparisons between benefits for workers of defense contractors and benefits for workers in non-defense oriented firms or industries.
- (2) Concepts or standards of adequacy of fringe benefits used in collective bargaining in both defense and non-defense industries.
- (3) Influence of contracting procedures of the Department of Defense upon fringe benefits.
- (4) Evidence that employees of defense contractors are paid a "wage premium" to compensate for the greater instability of defense-dependent employment.

Should the determination of some measure of adequacy of benefits for defense workers prove feasible, the contractor will provide a design for making such determinations.

IV

REGIONAL OR COMMUNITY IMPACT

ACDA/E-57

CONTRACTOR: National Planning Association

TITLE: Community Readjustment to Reduced Defense Spending

DESCRIPTION: This study provides an evaluation of the potential impact of certain assumed reductions in defense spending on the Seattle-Tacoma, Baltimore and New London-Groton-Norwich (Conn.) metropolitan areas. The evaluation is treated in the context of case study material to provide insights into the problems of community adjustments to changes in defense spending. An important derivative of the approach is a checklist of policies and programs to be considered for dealing with regional adjustment problems, together with a characterization of each indicated measure according to economic objective, short or long term value, principal beneficiary, degree of effectiveness, and other pertinent factors.

The arms reduction assumptions used in the study are: (1) a strategic nuclear delivery freeze, (2) an across-the-board cut in major categories of armament (that is, a reduction of 10% per year for three years along the lines of the first stage of the program for general and complete disarmament submitted by the United States to the Eighteen Nation Disarmament Committee in March 1962, and (3) a gradual reduction in defense expenditures or a reduction in such expenditures of \$12 billion over a five-year period. July 1, 1965 was taken for the starting date for carrying out the assumed reductions. The impacts from the assumed reductions were analyzed in the framework of projections for the economy, based upon trends applying before changes due to the conflict in Vietnam. Regional impacts were derived principally from information available on prime contract awards. These impacts are translated into gross disemployment and net disemployment after application of national offset programs.

DATE OF COMPLETION: January 1966

ACDA/E-58

CONTRACTOR: Kirschner Associates

TITLE: Adjustments to Reduced National Defense Expenditures
in New Mexico

DESCRIPTION: This study is a "companion" to the one performed by the National Planning Association (see ACDA/E-57) and a contract for the study resulted from the same request for proposals by the Agency.

The study involves reliance upon the same reduction assumptions used in the National Planning Association study plus an additional assumption of a 25% cut in AEC weapons R&D, coupled with an across-the-board cut. Regional income and employment effects are traced on the basis of certain simplifying or arbitrary assumptions as to how the national military program cutbacks would affect specific programs of the Department of Defense and the Atomic Energy Commission in New Mexico. The results are applied statically as of 1963.

The report evaluates the economic development and redevelopment climate in New Mexico and provides recommendations for facilitating more thorough advance planning in the state for economic losses related to changes in defense spending.

DATE OF COMPLETION: January 1966

ACDA/E-85

CONTRACTOR: The University of Washington

TITLE: Impact of Defense Purchases on Industries in the State of Washington

DESCRIPTION: The University already has conducted a Washington State Interindustry Study with partial financial support from the Washington State Department of Commerce and Economic Development. The university will expand the Interindustry Study by developing a set of "defense input-output" tables which will facilitate more meaningful identification, segregation and measurement of the sales and purchases among industries in the state which result from national defense activities. Specifically, these sales and purchases will be related to the levels of demand associated with individual military bases in the state and with purchases by the Department of Defense of military hardware and of "soft" goods for military consumption outside the state. The project will provide information on methodology which can be of assistance to other states or regions in evaluating the local economic effects of changes in defense spending.

DATE OF INITIATION: June 1965

ACDA/E-88

CONTRACTOR: National Planning Association

TITLE: Measurement of Community Dislocation Sensitivity
and Adjustment Potential

DESCRIPTION: The study endeavors to develop and test a method of statistical indicators which can be used to evaluate the sensitivity of communities to economic dislocations from changes in defense spending and the potential of the communities for economic adjustment to such changes. The method will be developed from data applicable to nine selected communities. The procedure involves determining in the first instance the economic and demographic characteristics which bear on dislocation sensitivity and adjustment potential--income, employment, and fiscal dependency on defense activity, non-defense economic activity, public and social services, resource and transportation assets and liabilities, regional environment, economic institutions, and similar measures. Data sources to represent these characteristics then will be examined and available data collected. The final step will be to draw on the data to describe and analyze important economic relationships and to convert these relationships (or combinations of relationships) into appropriate indicators.

The data from the project will be drawn from existing available sources--Federal, state, and local. Should the data available prove inadequate to develop a useful indicator system, the study will indicate the nature of the data gaps which must be filled to develop such a system.

DATE OF INITIATION: June 1965

ACDA/E-90

CONTRACTOR: University of Kansas

TITLE: Civilian Manpower and Community Impact Analysis:
Changes in Status of Military Installations

DESCRIPTION: This study will evaluate the economic impacts of the program announced by the Secretary of Defense on November 19, 1964 to reduce activity at 80 domestic military installations.

The study will concentrate largely upon the economic impact in the affected communities and give special attention to the impacts in Bangor, Maine; Savannah, Georgia; Middletown, Pennsylvania; Mobile, Alabama; Salina, Kansas; Amarillo, Texas; and Moses Lake, Washington. These will be analyzed from available data reflecting changes over time in such aspects of local economic activity as employment, wages and earnings, retail sales, construction and sale and rental of real property, sales of public utilities, and public finances. To increase knowledge of community response to economic impact situations, community action programs in Salina to deal with the current cutback will be analyzed in depth. The study will evaluate the role of actions or plans regarding the disposition and civilian re-use of land and facilities released by the Department of Defense in each area.

In addition to studying the community impacts, the project will provide summary data and analysis relating to the reemployment experience of the civilian employees of the Department of Defense whose jobs have been affected by the November 1964 order. Insights into the problems of skill transfer and geographic mobility will be sought from the analysis.

DATE OF INITIATION: June 1965.

ACDA/E/RA-33

CONTRACTOR: Robert Nathan Associates, through the Economic Development Administration, Department of Commerce

TITLE: Southeastern Connecticut Economic Readjustment Study

DESCRIPTION: The project is to develop a plan, in cooperation with the local community, for broadening the economic base of the New London-Groton-Norwich area and thereby lessening its dependence upon defense spending. In addition to the economic redevelopment plan, the contractor also will develop a contingency plan for readjustment programs in the event of an actual cutback. A second part of the project involves evaluation of the plans and their implementation by a second contractor to EDA.

DATE OF INITIATION: April 1967.

Chairman PROXMIRE. Mr. Alexander. Thank you for an excellent statement. This is most helpful to us.

Several thoughts occurred to me in connection with your statement. No. 1, what is the relationship of your agency to the Ackley committee that was appointed this year, that is to study the effects of the deescalation of the Vietnam war? Is Mr. Foster a member of that committee, or is anybody from your agency represented on that committee directly?

Mr. ALEXANDER. Mr. Foster is not a member of that committee, which is a Cabinet level committee. We are, however, represented on some of the working groups into which the top committee is subdivided.

Chairman PROXMIRE. All the members of that committee are Cabinet members?

Mr. ALEXANDER. All of the members of what was referred to earlier in these hearings as the Ackley committee, I believe, are Cabinet members.

Chairman PROXMIRE. Except Mr. Ackley.

Mr. ALEXANDER. Except Mr. Ackley.

Chairman PROXMIRE. I see. Because it just occurred to me that your committee should be, it seems to me, the one that has the best claim to representation on it. You are created for the purpose of studying arms control and disarmament in all of its aspects, and certainly one of the major studies you conducted with great competence, I would say on the basis of this, is what would reduction of armaments, what effect does that have on our economy.

Therefore, you have these years of research and a very helpful viewpoint that I think can contribute a great deal. But I understand it was a Cabinet committee, and apparently that is the difficulty. I wish they could make an exception, not only of the chairman but of Mr. Foster.

Mr. ALEXANDER. Well, sir, I will tell what you say to Mr. Foster, but I might say, sir, speaking seriously, that we are in daily touch with the people who are doing the work on this, and we have furnished them, of course, copies of the research and given them our ideas.

Chairman PROXMIRE. I am sure you are doing all you can possibly do to work with them. It seems to me you ought to have a voice in the committee's determination of where this goes, and so forth.

What is your impression as to the present status of this Ackley committee? We have had a lot of pessimistic talk this morning. General Westmoreland gave a pessimistic estimate of the duration of the war yesterday, saying there is no end in sight, and maybe he is right. And we certainly must be prepared for that.

On the other hand, we never do know. Sometimes the clouds are darkest before the sun breaks through. It is conceivable that we could have negotiations rather soon. What would happen? Do we have any contingency plans available now to your knowledge to move in, if the war should end promptly?

Mr. ALEXANDER. Mr. Chairman, I suppose there could be argument whether if there is a cease-fire in Vietnam, that is technically due to arms control and disarmament. I don't think we need to get into that technicality. All the planning and the research which we have done on different aspects of the problem are available to the Ackley

committee. My understanding, however, is that the Ackley committee is only beginning its work and that it probably—

Chairman PROXMIRE. That is the difficulty, yes.

Mr. ALEXANDER. It will probably take some months before they actually have contingency plans.

Chairman PROXMIRE. Let's understand, that is why we did not press him. He preferred, I am sure, until he had more information before he came before the committee, and for that reason we are waiting until late August or September to ask him to come before us.

But you see, we are very concerned about what may happen. We should be prepared for every possible eventuality. What you are telling us, however, is that the Ackley committee itself is beginning and it will be some time before they would have very useful recommendations?

Mr. ALEXANDER. That is my understanding, sir.

May I make one other comment on that point?

Chairman PROXMIRE. Yes.

Mr. ALEXANDER. If there is a cease-fire for reasons referred to by Senator Stennis and by the Secretary of Defense, there would be some appreciable period, I think before the reductions which will occur, take place. So that I think, I trust, there will be time to prepare these contingency plans.

Chairman PROXMIRE. Yes and no. There is a tremendous difference between having a shooting war going on with all of the attrition of equipment, with the use of ammunition, with the fact that we have 500,000 troops there. We may have to have a force there perhaps for some time to help protect Vietnam, though it is debatable. But how big a force? It certainly wouldn't be 500,000 troops. It could be 300,000. It could be 100,000. It could be far less than it is now.

After each war in the past, whether rightly or wrongly, certainly after Korea, especially after World War II, there was an extraordinarily rapid reduction in Government purchases of goods and services. We brought that out yesterday on a statistical basis, and in 1 year after World War II, it was cut to one-third of what it had been.

The economic impact was dramatic and sudden. The Korean war was quite sudden too. While I think that Senator Stennis might be right, he may not be right about whether or not we have substantial troops over there. But still it would seem to me that we might have a sudden, swift economic impact, although I think you are right to caution us that it might not be as swift as it has been in the past.

I would like to ask you in your "Measurement of Impact," you say that the census has been done in 1963, and within a relatively short time, 1965 will have been covered covering a period from when the buildup was begun. It seems to me this would be very helpful, if this was brought up to date, to 1967. How long is that likely to take?

Mr. ALEXANDER. Sir, that is perhaps based on the calendar year 1966 or calendar year 1967?

Chairman PROXMIRE. Yes.

Mr. ALEXANDER. Based on calendar year 1967?

Chairman PROXMIRE. Well, yes, I presume so. I see your problem. Calendar year 1966.

Mr. ALEXANDER. Sir, usually there has been a timelag of the order of 2 years in the preparation of these, because of the fact that the

census goes out and the forms come in and have to be processed. There are other things, however.

Chairman PROXMIRE. So it has limited value when you have a rapid buildup of the kind we have had, because the situation obviously 2 years ago was completely different than the situation right now.

Mr. ALEXANDER. That is quite right. I would think 1966 or 1967 would be necessary to have in order to estimate the situation at the time of the cease-fire.

Chairman PROXMIRE. I just had one other thought, and that is, this would be most helpful to us, of course, if we could somehow get data that was related to the Vietnam war, because obviously, it doesn't help very much to know, in my view it doesn't help very much to know, simply, that there might be a \$15 or \$20 billion reduction in the level of arms spending.

This is of some use, but unless we can pinpoint the kind of procurement and the kind of impact the Vietnam commitment involves, we are not in a very good position to judge what to do with regard to regions, with regard to industries, or, perhaps we can do quite a bit with regard to manpower, is that correct?

Mr. ALEXANDER. Yes, sir. I think we are not as well off as we hope to be by midsummer actually, because there is work going forward which I think either Mr. Anthony or Mr. Schultze spoke of yesterday, to bring together the contract on the one hand with the people and the places, and the firms specifically involved on the other hand.

Chairman PROXMIRE. So we know what effect a cease-fire would have in Vietnam. Obviously this has a direct effect on procurement and the question of the personnel involved would be more gradual as you and Senator Stennis have cautioned us, but I would assume that we would have to slow down our procurement, although there would be this period of replenishing inventories.

Nevertheless, it would involve a specific impact, not one that we can generalize on. Research obviously would be affected relatively little, where as the procurement of helicopters would be affected directly and very greatly.

Mr. ALEXANDER. You put your finger on the most difficult part of the problem. To say 10 percent doesn't tell you who is going to get hit by it, and that is what you need to know. We will never know precisely, of course, because of the competitive system of procurement, but we can tell much more approximately, and certain items are procured only from certain sources.

Chairman PROXMIRE. Thank you very much.

Congressman Curtis.

Representative CURTIS. Thank you, Mr. Chairman.

And thank you for that fine presentation. Incidentally, just on that replenishment problem, I directed some questions to Senator Stennis. He very rightly said in replenishing pipelines and inventory, there is going to be a mixup of some sort.

Some things you won't want to replenish. This becomes quite important. First you have to try to estimate how much, and if it is billions, and I suspect it is, that would be involved, you also have to determine in what areas. Would it be textiles, drugs, or where would the replenishment come? This is the way you would relate it, as I would view it at any rate, to the impact on the economy.

Now, first, let me ask, Mr. Chairman, to be sure that exhibit A is part of the record.

Chairman PROXMIRE. Absolutely. Yes, indeed. I am glad you recommended that. That should be in.

Representative CURTIS. Yes. It shows the studies that you have been making in capsule form.

Now, let me ask you a question. I have in front of me the Sixth Annual Report of the U.S. Arms Control and Disarmament Agency, transmitted February 20, 1967. That is correct. That is the date. This is the period January 1 to December 31.

Now I have been scanning it, and I want to be sure I am right. About the only part of this report that deals with the economic impact of reduced defense spending begins on page 22, and goes over to page 24.

The purpose of my asking the question is to try to settle in my own mind the extent of your involvement in this matter in light of your other duties and the other work that your agency is performing.

This is a 27-page report. Would it be accurate to say that two and a half pages of a 27-page report is about the proportion of time that you would spend on this aspect of your work? The rest of it would be in the area of various international agreements and so forth?

Mr. Chairman, may we include the pages I refer to in the record?

Chairman PROXMIRE. Without objection it is so ordered.

Representative CURTIS. Would you comment, Mr. Alexander?

(The portion of the report referred to by Representative Curtis, pp. 22-24, is reprinted below:)

ECONOMIC IMPACT OF REDUCED DEFENSE SPENDING

Under its legislative mandate, the Agency conducts research on the economic consequences of arms control and disarmament and the reallocation of national resources. The sharp increase in defense spending imposed by the Vietnam conflict has underlined the importance of preparing for economic adjustment to eventual reductions in defense expenditures. ACDA, working in close cooperation with other Federal agencies represented on the President's Committee on the Economic Impact of Defense and Disarmament, continues to give the matter careful attention in its program of studies.

Planning requires a systematic knowledge of the flow of defense dollars and of the jobs thus created in certain industries and areas of the country. The task is complicated by the degree to which the dollars going to prime contractors ultimately are received by many large and small subcontractors and material suppliers scattered throughout the country. The survey of "Shipments of Defense-Oriented Industries" conducted by the Census Bureau with funds contributed by ACDA, the Department of Defense, NASA, and AEC has made an important contribution to overcoming this difficulty.

ACDA and other agencies are working to develop other means for estimating the impact on individual industries of changes in major defense programs. One coordinated research effort, for example, relates to the economic effects of a strategic nuclear delivery vehicle freeze agreement—or a possible agreement not to deploy ABM systems. A freeze on missile production would have an obvious impact on metal industries providing metals both for missiles and machinery.

For many communities in the United States, defense-related activity has been an important source of economic growth, and reductions in that activity—unless planned for in advance—may create serious local unemployment, declines in retail sales and construction, and depressed property values. Local problems may derive from the closing of military installations or from cutbacks in defense orders of goods and services. ACDA research is addressed to both situations. The Agency's contract with the University of Kansas, for example, calls for an evaluation of the economic experience of Bangor, Maine; Middletown, Pa.; Savannah, Ga.; Salina, Kans.; Mobile, Ala.; Amarillo, Tex.; and Moses Lake,

Wash., as the result of the closing of military installations important to the respective areas. Other universities in the general area of the affected communities are assisting in the Kansas study.

The National Planning Association (NPA) completed a study for the Agency in 1965 of the policy tools available for dealing with regional economic adjustment problems. One of the areas included in the study was the New London-Groton-Norwich (Connecticut) area. The study stimulated interest on the part of community leaders in southeastern Connecticut in planning for ways to cope with the uncertainties in patterns of defense spending for that area. The NPA report showed that the Electric Boat Division (at Groton) of the General Dynamics Corp. accounts directly or indirectly for about seven out of every 10 jobs in the area. Termination of the contract to build Polaris submarines has caused a serious reduction in employment.

After extensive discussions with local community leaders, ACDA and three offices of the Department of Commerce are sponsoring a study project. It will involve planning, implementation, and evaluation phases, with the Government agencies sponsoring the first and last phases. The Agencies hope to derive insights on advance planning problems of value to adjustment problems of other communities.

One way for areas like New London-Groton-Norwich to adjust to reductions in defense spending may be to convert their plant facilities to the production of goods and services for civilian markets. The possibilities for industrial conversion by the defense segment of the shipbuilding industry were investigated for the Agency by Midwest Research Institute. MRI screened 900 industries for information on production, labor skills, technology, and marketing and concluded that 55 had sufficiently similar characteristics to the shipbuilding industry to suggest that the latter can diversify to the products of those industries. The shipbuilding study supplements other studies sponsored by the Agency on the broad problems of diversification and conversion. The report by the Denver Research Institute on "Defense Industry Diversification," which covered 12 case studies, has been particularly well-received by defense industry management and the business press.

The alternatives for defense industry are by no means limited to producing goods and services for commercial purposes. Recently, interest has centered on the possibility that defense companies' capability for "systems" analysis and engineering, as well as their Government-market orientation, might be well-suited to the competition for the expanding requirements of Federal, State, and local governments in such fields as air and water pollution control, urban development, public transportation, education, and information retrieval. The State of California has let a number of contracts for feasibility studies by defense contractors for the solution of broad problems of the State. ACDA has contracted with the Denver Research Institute to pull together and evaluate the many threads of this public sector potential for defense industry which are now being considered and discussed.

While conversion to private or public sector markets might reduce the dislocations of arms reductions, this process cannot be relied upon to absorb all or even nearly all the losses of defense jobs. Consequently, the Agency continues to devote considerable attention to the problem of displaced defense workers. More precise knowledge of how to ease the adjustment of workers to defense cutbacks is being derived from the three studies sponsored by the Agency concerning the experiences of workers who lost their jobs at the Boeing plant in Seattle, the Martin plant in Denver, and the Republic plant on Long Island. The Boeing study was completed in 1965 and the other two in 1966. The University of Colorado is preparing an integrated analysis of the three layoff surveys which will provide guidance for policies to assist displaced defense workers to obtain new jobs.

Jobs in defense plants often involve skills which are not entirely comparable to those in nondefense industries. More precise knowledge of the differences and similarities between defense and nondefense occupations is required in order to judge retraining needs in the event of arms reductions. To expand the work done earlier by the State of New York on classifying jobs at the Republic Aviation plant and relating them to nondefense jobs, ACDA has asked the Department of Employment of the State of California to perform a similar task for occupations of blue-collar workers and technicians at two missile plants in California. In addition to giving insights as to retraining needs, it is hoped that these occupational classification studies may be used as tools to assist in finding new job opportunities for released defense workers.

Scientists and engineers constitute a special-skill group among defense workers and the use of their services in nondefense sectors of the economy depends upon rather special factors. Much needs to be learned in this area and, as an initial effort, the Agency has sponsored a study by Stanford Research Institute on the transfer of engineer skills from defense to commercial work. The study will emphasize the experience of engineers who have shifted from defense to commercial work within the same firm.

Mr. ALEXANDER. Yes, Mr. Curtis, I think that that is a fairly accurate indication of the proportion of the personnel of the Agency that are devoted to domestic impact. I can't pretend to be completely happy about that, naturally. No bureaucrat ever concedes that he is adequately staffed.

So far as the contract research is concerned, however, I think that a larger proportion of that total goes to the domestic economy impact than one-tenth.

Representative CURTIS. That is very responsive and helpful in getting this concept.

Senator Proxmire has asked the relationship of your Agency to the economic impact of Defense and Disarmament Committee created by the President under the chairmanship of Dr. Ackley. I, too, raise a serious question.

I don't care whether it is cabinet level or what it is. I raise a question of not having an agency—and I have voted for funds for your Agency and will continue to as long as you are along the line—but not to have that agency represented right at the top level. It is insufficient to talking about coordinating, that you do work at this level. I know you can't respond to these observations, but I'm making them for a definite purpose. I would hope that the administration would understand these basic points.

Now I do notice, though, that you do go on and say after all this research and with the help of the other parts of the Government, and I am now quoting, "We," and I think you are referring to the Agency, "should prepare integrated contingency plans for dealing with the various contingencies which might arise as a consequence of the reduced defense spending due to arms control and disarmament. We believe that much of the research which I described would be useful in connection with contingency planning for the economic impact of the Vietnam cease-fire."

Frankly, I would hope that you would be doing just that, I hope that your contingency plans would be the plans the administration might be relying on, rather than duplicating them or, it almost seems to me, ignoring this Agency that Congress created. I voted for it for essentially these reasons. In fact, I would like to knock out of your title the word "disarmament." I would like to see the world disarm, but it is so unrealistic these days. I regret to see that people have been confused about what I think is a function of your Agency.

Now, I started to say that you have talked about your relationship with the Committee headed by Dr. Ackley. I am very concerned about your relation with the Manpower Utilization Board, I guess that is its title. It is headed by the Secretary of Labor. This is the Board that is supposed to be considering deferments, occupational deferments for defense-oriented industries.

Is your Agency represented on that Board?

Mr. ALEXANDER. No, sir, it is not.

Representative CURTIS. Well, of course, I have been very disappointed. When I interrogated Secretary Wirtz this year about what that Board was doing, if I understood him correctly, he said that they had made no major changes or evaluations since 1963. In other words, as far as utilization of skills is concerned, the Vietnam war might as well have not occurred. That commission apparently has not changed its views. Yet it is right at the heart of what I think your prepared statement is discussing.

Chairman PROXMIRE. Would you like to respond to that?

Mr. ALEXANDER. If I may respond.

Representative CURTIS. Sure. Please do at any point here.

Mr. ALEXANDER. Without arguing whether we ought to be represented on such a commission, I believe that they are familiar with the research on manpower problems that we have had done.

Representative CURTIS. Yes. Just referring to some specifics, referring to the section in your statement "Impact on industries"—your studies on the reduced defense demand for electronics, shipbuilding, and machine tools. I am putting in a plug. I think textiles would be a very good industry to study. It was heated up by the Vietnam demand, and is, as I understand it, in some economic difficulties right now. This would possibly be a good area to study. I would like to see something on that myself.

Now, in talking about the impact on employees, Secretary McNamara, in testifying before this committee last year and again in the testimony of the Defense Department this year, discussed some of the programs that the Defense Department has when military operations and bases are closed down. Have you all been involved in that?

Of course, I think you have responded by saying you know about them and know what they have done. But have you been involved in any way in the planning of the adjustment features, when those bases have been closed down?

Mr. ALEXANDER. No, sir. We have not. We are involved in making a study more precise than any that has yet been made of what does happen to the people in the surrounding community, but with respect to existing policies, we have not been involved.

Representative CURTIS. They are actually doing this, or did do it. Decatur, Ill., is one where there was a big closedown. That is even better than a study, to be actually involved.

One other point. You emphasized two studies dealing with the transferability of skills from defense to civilian-oriented production. I am deeply concerned about this. Some studies indicate that the correlation between skills needed by the military and skills in the civilian sector is over 80 percent today.

I, myself, think it is higher than that. I think it is most important, both from the standpoint of deescalating as far as skills are concerned, and in escalating the war and the further use of skills. I am glad to see those two studies.

You say, "We shall have to plan"—talking about the country in this instance—"our economic moves so as to be prepared for both increases and for decreases in defense spending."

This is the point I directed Mr. Schultze, the Director of the Budget, yesterday, and others. I would agree that your agency probably has

been directed only to consider decreases and yet, if I may argue a moment here, I think if you were involved in increasing military requirements, you would gain great insight into how we can decrease. Do you see what I am getting at?

Mr. ALEXANDER. Yes, sir.

Representative CURTIS. Would you comment?

Mr. ALEXANDER. Yes. I agree that we need to be involved in the increases, in the sense of knowing what is happening. I think we have no jurisdiction or right to be deciding or helping decide how much the increases are.

Representative CURTIS. No, no. Nor do you have anything to do with how much the decreases are; but as I understand it, we have asked you to see what the impact will be. The decisions on defense spending must be as a result of other policies and very basic policies. But it still would be important to relate the problems involved in increasing the use of skills, the use of plant facilities, and all the rest. They are related to the problems when we deescalate, which leads me to an observation you make. You say:

MEASUREMENT OF IMPACT

The first group of studies attacks the problem of measurement of impact, in terms of geography, industry and people, which would result from termination of particular kinds of defense expenditures.

Let me urge you to put in there, probably at a higher level—skills—the impact in terms of skills. I think a great deal of the focus should be on the skills and the correlation between the skills. I would hope that a great deal of our studies would be in the area of following this point through on the basis of skills.

I think those are the points I want to make.

I am most pleased to have this Agency testify before us. I hope that this committee will keep in touch with your organization. We should be on your mailing list for your studies, as they come out, and the Joint Economic Committee should be on your mailing list. Thank you, Mr. Chairman.

Chairman PROXMIRE. Thank you, Mr. Curtis. I would like to suggest one final question.

I noticed, Mr. Alexander, in studying your exhibit, that this was the impact on industry and employees, by and large, in the 1963-64 period, and in 1965. At any rate, it is a period in which there were two factors involved.

No. 1, there was obviously no overall reduction in defense spending.

No. 2, it was a period in which the economy seemed to be moving ahead, unemployment dropping, opportunities for both industries and employees improving. It is quite different, therefore, than the possible effect of a substantial decrease spending in the area of \$15 to \$20 billion.

Under those circumstances, I would assume that it might be quite a bit more difficult for both industry and employees to adapt to a situation in which the whole economy has been affected.

Mr. ALEXANDER. I think that is entirely right.

Chairman PROXMIRE. Fine. Thank you once again.

Representative CURTIS. Could I ask one other question?

Chairman PROXMIRE. Yes indeed.

Representative CURTIS. Does your Agency tend to report to any particular committee of the Congress, Foreign Affairs? Of course, Appropriations, to get your money.

Mr. ALEXANDER. Appropriations, I assure you, we have to be very detailed with. We have been reporting to a number of other committees on different aspects of our work.

Representative CURTIS. Would you list those?

Mr. ALEXANDER. Primarily, the Disarmament Subcommittee of the Foreign Relations Committee of the Senate, which has had hearings in executive session quite lately; the full Committee on Foreign Relations, also; and within the past year there were extensive open hearings held by the Joint Committee on Atomic Energy, in connection with the so-called Pastore nonproliferation resolution.

And then in February 1967, the Acting Director of the Agency briefed the House Foreign Affairs Committee in executive session.

Representative CURTIS. Thank you very much.

Chairman PROXMIRE. Thank you, Mr. Alexander, once again. This is most helpful, and especially I appreciate the specific content of your presentation. This is just the kind of thing that I think will be most enlightening to the members of the committee and to the Congress. Thank you very much.

Mr. ALEXANDER. Thank you, sir.

Chairman PROXMIRE. Tomorrow, we meet in room 318, Old Senate Office Building, for the current and past impacts of the Vietnam war on the civilian economy; four witnesses, three in the morning and one in the afternoon. We will be in recess until tomorrow morning at 10 o'clock.

(Whereupon at 12:25 p.m., a recess was taken, to reconvene on April 26, 1967, at 10 a.m., in room 318, Old Senate Office Building.)

ECONOMIC EFFECT OF VIETNAM SPENDING

WEDNESDAY, APRIL 26, 1967

CONGRESS OF THE UNITED STATES,
JOINT ECONOMIC COMMITTEE,
Washington, D.C.

The joint committee met, pursuant to recess, at 10:15 a.m. in room 318, Old Senate Office Building, Hon. William Proxmire (chairman of the joint committee) presiding.

Present: Senator Proxmire and Representative Griffiths.

Also present: John R. Stark, executive director; and Daniel J. Edwards, staff economist.

Chairman PROXMIRE. The Joint Economic Committee will come to order.

Gentlemen, we are delighted to have you with us this morning. We are most impressed by your qualifications.

Our discussion this morning will be on the current and past impact of the Vietnam war. Our first witness, who will speak on the impact on firm and industry, is Mr. Robert W. Eisenmenger, vice president and director of research, Federal Reserve Bank of Boston. Mr. Eisenmenger.

STATEMENT OF ROBERT W. EISENMENGER, VICE PRESIDENT AND DIRECTOR OF RESEARCH, FEDERAL RESERVE BANK OF BOSTON

IMPACT ON FIRM AND INDUSTRY

Mr. EISENMENGER. Thank you. I have been asked to testify this morning about fluctuations in military spending for Vietnam and their impact on firms, industries, small isolated communities, and large metropolitan areas. I imagine I was invited because the Research Department of the Federal Reserve Bank of Boston has supported numerous studies which analyzed the impact of various defense closings on local communities in New England. In addition, I have recently written a book which discusses the problems of economic adjustment in New England since World War II.

As most of you probably know, with the exception of the coal mining areas and some of the depressed agricultural areas, primarily in the South, probably no major section of the country has experienced such a radical transformation of its economic base in the last 20 years as has New England. When World War II ended and outmoded machinery was no longer needed to satisfy swollen wartime demand, the region's antiquated textile industry collapsed and laid off 180,000 employees over a period of 15 years. In many metropolitan areas unemployment was serious. For example, during 1948 the unemployment

rate averaged between 13 and 25 percent in Lawrence, New Bedford, Fall River, and Providence-Pawtucket. Even as late as 1958 the unemployment rate averaged more than 10 percent in these same cities and was 15 percent or more in many of the smaller textile cities.

Today, the unemployment rate in New England as a whole is only 3.3 percent, well below the national average of 3.6 percent. Only two of our large textile cities now have serious unemployment problems. Thus, given enough time, it would appear that even the most depressed communities can make a strong comeback. We may ask ourselves, however: Is it necessary for communities to go through such a long, hard readjustment process before they regain economic balance?

What would happen if the Vietnam war should end suddenly and national defense spending were cut by 20 percent or more? Would many of the country's large economic areas have the same agonizing readjustment problems that New England's textile communities faced after World War II? No one can answer this question with 100 percent assurance, but I am reasonably confident that a very substantial defense cutback would not bring similar problems to many metropolitan areas in the United States. The problems of the older textile cities in New England were considerably different from those of most metropolitan areas which depend heavily on defense spending today.

I have four reasons for saying the situation is different now:

1. New England's depressed textile towns had a very slow economic and population growth rate long before most of their economic base collapsed with the textile industry. To a surprising extent, in contrast, most defense-dependent areas have been growing very rapidly for many years. For example, the Los Angeles population increased by more than 45 percent between 1950 and 1960. More than three-quarters of this total gain was accounted for by net in-migration from other parts of the country. More recent figures show a 10.5-percent increase in population in Los Angeles between 1960 and 1964, almost half of which was accounted for by migration. The figures for Hartford County, Conn., another defense-dependent area, are somewhat similar. Between 1950 and 1960 there was a population increase in Hartford County of 28 percent. About two-fifths of this percentage increase was accounted for by net in-migration.

My main point is this. Even if large military cutbacks occurred, these exploding areas might merely see a decline in their rate of growth and consequently, in their rate of in-migration. As a result, the areas' industries might well be able to absorb the existing labor supply without major difficulties. This is not to say that there would be no problems in the transition period. The housing industry and some of the service industries which expanded in anticipation of a continuation of a rapid rate of growth would likely have an over-capacity problem for a number of years, but it is difficult to envision the kind of problems that faced the stagnant textile communities in New England.

2. New England's depressed postwar mill towns also differed very substantially from most of today's larger metropolitan areas in that their economic health depended largely on one stagnant industry—

textile manufacturing. Furthermore, most of their nontextile firms were also in slow growing industries.

Two years ago, looking at metropolitan areas where defense spending is of major importance, the National Planning Association made a study of the possible impact of defense cutbacks on Baltimore and Seattle-Tacoma. The NPA was reasonably optimistic about Baltimore where 15 percent of the total civilian employment was defense-related, because Baltimore has a diversified economy with many firms in growing industries. The NPA study suggests, therefore, that even a substantial military spending cutback, if offset at the national level by tax cuts or increased spending, would bring little economic and social disruption to Baltimore.

The N.P.A. study was slightly more pessimistic about Seattle-Tacoma where 24 percent of the total civilian employment was defense-related and military personnel accounted for 6 percent of total employment. Here again, however, there was no suggestion that defense conversion would create the kind of problems that plagued New England's textile communities for so many years. The study foresaw unemployment of only 2 to 7 percent of the work force. While the N.P.A. did point out that many scientists and engineers at the dominant Boeing plant would be displaced, these professional employees are among the most mobile members of our society. In addition, the N.P.A. expected that the rising national demand for commercial airliners and the area's growing service industries would prevent major economic disturbances.

3. Even during World War II, New England's textile towns could not have been considered the Nation's most prosperous communities. The case is different, however, for today's defense-dependent metropolitan areas. Professor Weidenbaum of Washington University in St. Louis has found that as of 1963 the regions with the highest per capita incomes were receiving the bulk of the defense contracts and that low-income regions were obtaining only a small share. He concluded, therefore, that a reduction in war spending and an equivalent increase in other types of Government spending would inevitably work to the advantage of the lower income sections of the country.

My examination of military procurement data indicates that the distribution of defense contracts has changed very little since Professor Weidenbaum made his study in 1963. There is one important exception to this generalization. The proportion of defense contracts allocated to California has declined significantly in the last few years. But, on the whole, the defense contracts are still directed predominantly to the high-income manufacturing centers in the United States. Thus, with a big increase in defense spending, these areas have developed labor shortages. I am sure, for example, that the rapid rise in defense spending in 1966 and 1967 explains the extreme labor shortage which we now have in Hartford, New Britain, and New Haven, Conn., and in Manchester, N.H. A reduction in defense spending would help alleviate some of these problems by reducing labor shortages in high-income areas and bringing additional income to low-income communities.

4. One of the obvious characteristics of military procurement is that it must be concentrated in geographical areas where the average

skill level of the labor force is very high. The Battelle Memorial Institute has shown, for example, that engineers and technical workers constitute only 11 percent of the work force of electronics manufacturers producing consumer products. The corresponding figure for military and space products is 33 percent. In contrast, semi-skilled and unskilled labor make up 63 percent of the work force in the consumer products sector of the electronics industry, while the figure for the military and space sector is only 27 percent. For these reasons, the defense products manufacturers tend to locate in areas where the labor force has diverse and above-average skills. But it is in just these areas that the labor force is most mobile and most able to change jobs if shifts in Government spending bring about an abrupt change in employment requirements. These high-skill areas differ substantially from the textile communities in New England. As of 1960, for example, the median number of years of schooling of the adult male population in New Bedford and Fall River was 8.6, compared to a statewide average of 11.3 in Massachusetts.

All in all, I conclude that most of our large metropolitan areas would undergo relatively minor disruptions if there were a cutback of only 20 percent in defense spending. The smaller metropolitan areas or isolated rural communities which are linked to military spending in various ways present a different case, however, and I will now turn to them.

For some of these smaller metropolitan areas and towns, there might be serious problems. For example, the National Planning Association examined New London, Conn., in their 1965 study of the potential impact of disarmament. The N.P.A. found that 71.5 percent of the civilian employment was defense-related. Furthermore, military personnel accounted for 16 percent of total employment. In addition, defense purchases were concentrated in one giant firm which entirely dominated the area's employment situation. For these reasons the N.P.A. concluded that New London is almost totally dependent on military spending for highly specialized shipbuilding and would be seriously affected by defense cutbacks. And I am sure that at least a few other communities in this country are equally vulnerable.

I should point out, however, that defense spending in small metropolitan areas and rural communities is more likely to be related to defense bases than to military procurement. As you know, there are important differences between these two types of military spending. Contracts for military procurement are usually given to private manufacturers who hire civilian employees. These employers in turn subcontract work to other manufacturers. The prime contractors, the subcontractors, and their employees also buy a great variety of services, supplies, and materials in their metropolitan area. The final result of an increase of, say, 100 persons in the employ of a prime contractor is an increase of another 100 or 200 in the employ of subcontractors, service establishments, and government agencies. In the parlance of economists, the employment multiplier is in the range of two to three.

In recent years the Federal Reserve Bank of Boston has supported a number of studies on the impact of various New England military installations on employment and economic activity in nearby towns and small metropolitan areas. The results were consistent in each case.

They show an employment multiplier which is much less than that for a manufacturing firm in a large metropolitan area. We estimate the employment multiplier for Fort Devens, a military installation near a small rural town in central Massachusetts, to be only 1.2. Our estimates for the Pease Air Force Base near Portsmouth, N.H., range between 1.2 and 1.4. In other words, for every additional 100 people stationed at these military bases, it is likely that only 20 to 40 additional people are needed to service them in the immediately surrounding towns.

It is easy to understand the differential multiplier between a private manufacturing firm and a military base. Most military bases are relatively self-sufficient. They obtain their supplies and parts from central supply depots and manufacturing firms in our large metropolitan areas. Military personnel often have their own on-base housing as well as their own PX, movie theater, barbershop, and recreation center. Surprisingly, it also appears that young military personnel save a somewhat larger portion of their pay than civilian employees. In addition, if military personnel do spend money on recreation, they are likely to travel long distances to major cities. Thus, when there is a big expansion at a military installation, the surrounding area does not expand as much as it would if there were a similar buildup at a private manufacturing facility. Obviously, when there is a contraction, the surrounding area is not nearly as hard hit.

One of our studies has also suggested that Government manufacturing facilities such as shipyards have a smaller employment multiplier than private manufacturing plants. Our estimates for Portsmouth, N.H., suggests that a Government shipyard has a multiplier of 1.6 as compared to 1.8 for a private manufacturing firm in the same area. Incidentally, I don't want to suggest that the specific multiplier figures I have quoted are applicable to all parts of the country. Under many circumstances, the local multiplier impact of Defense installations could be greater than 1.4 or 1.6. Nevertheless, it is quite clear that Defense installations have a lesser local impact than civilian plants.

Last year the Federal Reserve Bank of Boston studied the action being taken by communities affected by planned Defense installation closings in New England. We looked at the Watertown Arsenal in Boston, the Springfield Arsenal, Mass., the Dow Air Force Base near Bangor, Maine, and the Portsmouth Naval Shipyard. In each case we were pleased. The adjustment problems appeared to be small at the Watertown Arsenal which was only a minor employer in the Boston metropolitan area, and the communities were taking some action to plan for the adjustment. The Springfield Arsenal is now rapidly undergoing conversion—in part, to a private facility operated by the General Electric Co. The future closing of the Portsmouth Naval Shipyard will undoubtedly cause problems. However, the entire Portsmouth area now has a severe labor shortage. It appears likely that private employers will be able to absorb most of the shipyard workers who do not wish to stay with the Defense Department. I should also mention that the Defense Department's policy of guaranteeing a job to each permanent employee who is displaced is generally of great help. In the case of employees in the Boston area, more than three-quarters of those who wished to be transferred within the De-

partment of Defense have been relocated within commuting distance of their homes. Of course, other agencies of the Federal Government have a whole array of programs for retraining, placing and providing financial assistance for displaced workers. Distressed communities can also receive help. In general, Mr. Garner Ackley's 1965 Committee on the Economic Impact of Defense and Disarmament gives all these Federal agencies good marks for their work.

At the beginning I suggested that I would also consider the problems of individual firms and industries. If there were substantial defense cutbacks, what could be done to alleviate the financial problems of particular firms and industries which supply the bulk of our defense products? There has been much testimony on this subject and the best of it has been very pessimistic. For example, in 1963 testimony before the Subcommittee on Employment and Manpower, Murray Weidenbaum showed that 80 percent or more of the sales of some of our largest defense contractors go to the Defense Department. He was also skeptical about the ability of these specialized corporations to compete effectively in private commercial markets. In most cases they are research and development oriented and do not have the ability to produce large numbers of items at a low unit price or to market them effectively. I suspect, however, that public discussion about the vulnerability of individual firms to defense cutbacks has caused many managements to diversify by developing new civilian products or, and this may be more important, by acquiring or merging with firms that already have commercial marketing and production capability. For example, the Raytheon Manufacturing Co. was almost 100 percent dependent on military business in 1960. Now about one-third of its sales are to the private commercial market. Much of their marketing capability has been obtained by buying out smaller firms. The Laboratory for Electronics has had a similar record. Another possible example is the aerospace industry. There the Government's share of the net new orders of prime contractors declined from 88 percent of the total in 1963 to less than 60 percent in the early part of 1966. However, I do not wish to pose as an expert in this specified field, and it is possible that if a thorough study were made on this topic, it would show that there has been little trend toward diversification in the defense-related industries.

In closing I want to make one or two additional cautionary statements. First, all of my optimistic comments about the ability of the economy to adjust to a 20-percent cutback in defense spending assumed that monetary and fiscal policies would stabilize the national economy. Our studies in the New England area indicate that the adjustments are relatively easy if we are working in an economy which has overall full employment. The adjustment problems would likely be extremely difficult if the country should move into a recession.

My second note of caution is this: I do not wish to leave the impression that I believe that a shift of \$10 billion or \$20 billion in Government spending would create no hardships. It obviously would, and some communities, particularly small, undiversified ones, would be seriously hurt. In these cases, the Federal and State governments should move in with all of their available resources to cushion the impact on the affected individuals. However, my principal point this morning has been that the total impact would probably be consider-

ably less severe than might be expected from just a brief glance at the gross statistics.

Thank you.

Chairman PROXMIRE. Thank you very much, Mr. Eisenmenger.

Our next witness on regional impact, current and past impact of the Vietnam war, is Prof. Roger E. Bolton of the department of economics at Williams College. Mr. Bolton.

**STATEMENT OF DR. ROGER E. BOLTON, DEPARTMENT OF
ECONOMICS, WILLIAMS COLLEGE**

Mr. BOLTON. Thank you, Mr. Chairman.

REGIONAL IMPACT

In this area, the first question we must ask is just why the regional effects of economic trends and policies are important. The ultimate goal of economic policy is the benefit of persons. The effect on people is what should concern us. Except for the fact that Congressmen and Senators represent specific regions, why are regional groupings of people important? Why does the regional tag on people matter?

It would not matter if there were perfect mobility of people between regions. In that case economic policy would need only to aim for a balance between supply and demand at the national level, as far as full employment and stability policies were concerned. Changes in aggregate demand, such as an increase or decrease in defense spending, could be offset by general monetary and fiscal measures, and it would not matter whether the regional distribution of demand changed as a result. In regions where demand declined there would be unemployment at first, and in regions where it increased there would be labor shortages and inflation. Regional adjustments of two kinds would occur, and they would eliminate both the unemployment and the inflation. First, labor would move away from the declining area to the expanding area, attracted by rising wages and employment opportunities in the latter. Second, if the declining area is suitable for production of some items in demand in the new situation, industry would move into the declining area, to escape higher wages and labor shortages. Eventually equilibrium would be reached with full employment in all areas, as long as the national total of aggregate demand were adequate.

But, of course, mobility is not perfect, especially for older, less skilled, and less educated workers. Mobility between areas seems even less perfect than between industries in the same area, since the barrier of geographical distance is added to other barriers. When there are changes in composition of demand by product, such as might be caused by the net effect of a change in defense spending and aggregate policies to offset it, the resulting unemployment in some regions and excess demand in others will not be quickly eliminated by the regional adjustments described. Labor may be reluctant to move until inflation and unemployment have become severe and persisted a long time. If an area had produced some very specialized product, the demand for which had fallen, and if the area is not suitable for products the demand for which has gone up, industry will not expand into it and

the second adjustment will not occur either. The experience with depressed areas is sufficient evidence that this kind of immobility can be a problem. In recent years a very buoyant economy has eliminated the severe unemployment in many such areas, but this has not occurred without substantial inflation elsewhere in the economy, suggesting that this is necessary to break down the barriers of immobility.

If unemployment and inflation are things to worry about, then, the regional dimension of demand does matter. But asking the question, "Why?" does serve a useful purpose. It reminds us that the problem is not one of regions per se, but of the people in them. If their problems can be solved by encouraging movement elsewhere, this is more appropriate than giving artificial favors which allow inefficient production to continue forever in the region. In the long run, it may be quite proper that some regions and areas decline and die in the economic sense, as long as people do not remain in continued distress.

How this discussion applies to the subject of these hearings should be evident. The rapid Vietnam buildup and the required cutback in other things—such as highways, automobiles, and housing—constitute changes in the composition of aggregate demand, with regional effects. If the war ended and the appropriate fiscal and monetary policies were taken to stimulate new demands to replace defense demand, this would constitute another change in composition of demand by product and might result in a different regional distribution.

In the 1950's, when defense expenditures rose rapidly again after the post-Korean cutback, the composition of demand changed markedly. The new missiles and electronics items differed markedly from the conventional ordnance and equipment which had been needed in the Second World War and the Korean war, and they also differed from the civilian goods and services which would have been produced instead, if taxation had not cut the demand for them to make room for defense production. The shift was away from ordnance, ammunition, vehicles, and the routine supplies to support large forces in combat. The shift in regional distribution which resulted is well known and has been extensively documented. Defense demand shifted away from Middle West and Middle Atlantic manufacturing areas, which were suited for production of conventional equipment, and toward the southern and western areas of the country, which proved more suitable for manufacturing and testing the sophisticated new weapons. The Pacific coast and several Mountain States had their growth greatly affected as a result. The older manufacturing areas reconverted to civilian goods, following their natural comparative advantage. For some time after the temporary recession in 1953-54, nondefense demand was strong. In the late 1950's its growth slowed, excess capacity and unemployment began to persist, and the areas which had lost defense demand envied the success of the newer areas which were growing rapidly.

The more recent increases for Vietnam have also changed the geographical distribution of defense demand, partially reversing the trends of the later fifties and early sixties. The war is the more conventional type, and the needs for ordnance, vehicles, and combat supplies have grown much more rapidly than for missiles, ships, and electronics. Inspection of Defense Department data on commodity classification of prime contracts in fiscal years 1965 and 1966 shows very large increases in 1966 in the relative importance of vehicles, weapons, ammunition,

food, textile and clothing products, and several different categories of equipment and supplies of ordinary types. These increases in the percent of contracts imply very large increases in dollar amounts, because the national total increased by more than one-third in 1966 over 1965. The increase for ammunition is especially striking. The absolute dollar value of contracts for ammunition increased by more than \$2 billion. There were, on the other hand, declines in the share of contracts going for missiles, ships, and construction (in this country) so large that the absolute dollar value in these programs declined. The amount for missiles had already fallen sharply in fiscal years 1964 and 1965, and figures from direct surveys by the Defense Department of large missile manufacturing plants show declines in employment of about a third between 1963 and 1966.

Along with this change in commodity pattern has come a change in the regional distribution of procurement. All the major census regions received more prime contracts in fiscal year 1966 than in 1965, but the increase varied greatly in size. The increases for the Mountain and Pacific regions, for example, were quite small and their fractional share of the total fell greatly. Despite the large increase in the national total, increases were relatively even faster in the East North Central, South Central, and New England regions.

Chairman PROXMIRE. What is the east north central region? What States does that include?

Mr. BOLTON. Ohio, Indiana, Michigan, Illinois, Wisconsin.

Chairman PROXMIRE. Thank you.

Mr. BOLTON. Other areas of the country had increases roughly in pace with the national total. Although prime contracts do not indicate the true regional distribution of all defense production, because of the subcontracting across regional lines, they are nevertheless very important indicators. A very large part of the contract value is produced in the State the prime contractor is located in.

Inspection of data on prime contract value classified by both commodity and State, clearly shows the regional effect of the new emphasis on conventional equipment. Relative to the total change for the State, increased ammunition contracts were large for many Midwestern States, for Tennessee, New Jersey, Texas, California, and some States in the South. New England benefited greatly from weapons contracts; and the Midwest from vehicle procurement. Helicopter contracts loomed large in Pennsylvania and Connecticut; and aircraft engines in Connecticut, Massachusetts, New Jersey, Ohio, and Indiana. Textile and clothing products were important for many Southern States and several New England ones. Various miscellaneous kinds of equipment and supplies, such as military building supplies, production equipment, photographic equipment, and construction equipment were contracted for in large quantities in all the East North Central States, and some Southern ones. The wide variety of items for which large contracts were placed in the traditional Manufacturing Belt of Ohio, Indiana, Illinois, Michigan, and Wisconsin in particularly striking.

These have been indications of the procurement picture. There are also data on changes in civilian and military payrolls. Between June 1965 and June 1966, about three-quarters of the increase in civilian employment at Defense Department installations took place in nine States: California, Virginia, Maryland, Texas, Utah, Georgia, Oklahoma, Pennsylvania, and Missouri. In the same period, the States in

which there were the largest increases in military personnel assigned, and thus the States where they spend at least some of their pay, were Texas, California, Georgia, Illinois, Hawaii, New Jersey, Missouri, Virginia, and South Carolina. In civilian and military payrolls, then, the Midwest has not participated nearly as much as it has in procurement. Their regional distribution has followed the traditional lines of concentration in the south and west.

What would happen if Vietnam requirements suddenly fell must remain partly conjecture, but some general observations can be made. First, it is clear that the adjustment problems of any area suffering a reduction in defense demand are eased if there is adequate demand in the economy generally. Monetary and fiscal policies must be strong enough and prompt enough to insure an overall balance. Other witnesses will speak to this, and, I trust, discuss the difficult problems of timing and the necessity to look at defense obligations and not only cash expenditures by the Treasury. Expenditures may be rising even as real demand is falling. Second, the heavy increase in demand in the Midwest may pose relatively few problems for adjustment in case the buildup is reversed. This region has a highly diversified base for the manufacture of consumer durables, capital goods, and the materials they require. Strong demand for the products of the Midwest would probably result from almost any combination of Federal policies to offset the decline in defense demand—decreased taxes, increased transfer payments, more grants to State governments, or lower interest rates to stimulate investment.

Certain other characteristics of the buildup, however, suggest some difficulties. Weapons, ammunition, and textile and clothing contracts are perhaps now stimulating production in areas which could not maintain the employment if the composition of demand changed. Weapons and ammunition are needed in only small quantities in the civilian economy, and the domestic textile industry has long had a rugged time of it with foreign competition. Some Southern and Plains States, and perhaps Vermont, have been affected by increases in these contracts and might face somewhat more difficult adjustment problems.

But in general, if the right aggregate demand policies were followed, the regional adjustment problems in a post-Vietnam situation would probably be less than they would have been following a general disarmament several years ago. Then, when disarmament was something we could hope for, concern was expressed about areas like California and the Mountain States whose economies were so dependent on defense production of a very specialized kind, with few civilian counterparts. Many of the workers indirectly dependent on defense demand there are not the highly educated, mobile scientists and engineers we hear about. If disarmament were to come now, this would still be of concern. But as far as the specific increment in spending for Vietnam, the problems would probably be less severe if the increment were suddenly eliminated and civilian demand substituted. By "civilian demand" I mean nondefense demand, public and private. This is because of the heavy expenditures on items similar to civilian goods, or which are produced in regions which also produce civilian goods. Even the specific localities which have suddenly expanded in very specialized military production might be helped by being close to areas which could make the changeover more easily. This is not to say there will not be some areas where unemployment will be a problem. Policies

should be readied to cope with them. One important factor will be how long the buildup continues. The longer it does, the more long-term commitments people will make in the areas, commitments in business capital and housing, for example.

These are only tentative conclusions. It would be wise to study closely the areas which have recently received large increases in demand, to estimate the ease of their reconversion to other kinds of production. It is not just important to measure the regional impact, it is also necessary to assess the capability for various kinds of adjustment. Although the buildup's end is not yet imminent, a study to determine regional adjustment problems in advance would be very helpful. It would guide policies to assist adjustment when it is required. If areas can be efficiently reconverted to other production with certain Federal policies, such a study would suggest what is appropriate, given the comparative advantage of the area and the existing stock of business and public capital it has. And advance information would also help identify cases where labor mobility ought to be concentrated on and the area better allowed to decline in the long run.

Thank you.

Chairman PROXMIRE, Thank you very much.

Our last witness this morning, before we have our question period, is Dr. Daniel Suits of the department of economics, University of Michigan, who will discuss the impact of the general economy, of the current and past situation.

STATEMENT OF DANIEL B. SUITS, DEPARTMENT OF ECONOMICS, UNIVERSITY OF MICHIGAN

IMPACT ON GENERAL ECONOMY

Mr. SUITS. Like any other expenditures, outlays for defense have a multiplied impact on the economy. Not only does war production add directly to the gross national product, but the additional income received by workers and others connected with war production induces additional demand for consumer goods. A statistical analysis of these induced demands, conducted by the staff of the Research Seminar in Quantitative Economics at the University of Michigan, suggests that each dollar of war outlay stimulates about 85 cents of additional output of consumer goods. By the time all effects have worked themselves out, the addition of \$20 billion to annual defense outlay adds a total of about \$37 billion to the GNP.

At present prices, approximately one additional man-year of employment is needed for each additional \$10,000 of GNP. By the time all effects have worked their way through the system, therefore, the initial \$20 billion of defense expenditure together with its induced consumption impact is responsible for about 3.7 million additional jobs.

With this as background, we can now examine the course of events over the last 2 years. As shown in table I, defense expenditures, which had been nearly steady, began to rise in the second quarter of 1965, and continued to rise at an accelerated rate. The increased demand for war materials expanded total output and employment. The higher wages and profits paid by defense firms expanded household buying power and raised the demand for consumer goods. The generally high

level of demand created a favorable profit outlook that afforded an attractive environment for new investment, adding still further to the total use of productive capacity.

The rise in war spending from an annual rate of \$48.2 billion in the first quarter of 1965 to the rate of \$65.5 billion in the last quarter of 1966 represented a total increase of \$17.3 billion. Taking account of induced consumer expenditure, this increase was responsible for a total rise of \$32 billion in annual GNP, and for roughly 3.2 million additional jobs. Unemployment declined from 4.8 to less than 3.7 percent of the civilian labor force, in keeping with the rising rate of output.

The 15-percent rise in GNP was, of course, a reflection of both rising physical volume and higher prices. Measured in constant 1958 prices, the overall increase in GNP was only 9.5 percent, the remaining 5.5 percent representing price increases. This can be compared with the preceding 2 years. The total GNP grew 11.6 percent from the first quarter of 1963 to the last quarter of 1964. The increase in physical output during this period amounted to 8.5 percent, prices rising only 3.1 percent.

The higher price pressure, which appeared early in 1966 was especially noticeable in food and raw materials. Although there were expressions of alarm over this development, and a call for tax measures to contain the inflation, it now appears that the price increases were merely the natural concomitant of the shift to a high employment economy. They could have been contained only by tax action heavy enough to hold the prosperity itself in check.

In fact, spending for the Vietnam war rose only slightly faster than the increase in productive potential provided by rising labor productivity and the normal growth in the labor force.

A useful way to examine the general impact of Vietnam spending on the U.S. economy is to go back over the events of the last 2 years, applying the statistical relationships mentioned earlier to remove the effects of Vietnam spending and the induced consumption that accompanied it. Below each historical series in the table is shown the corresponding magnitude after the calculated impact of Vietnam expenditure has been subtracted. The difference between the series is striking. The calculated output of the last quarter of 1966 is almost 4 percent below the level historically observed. The 4 percent is reflected in the figure for unemployment. In place of the erosion of unemployment as it actually occurred, we see a fairly steady rise to a recessionlike rate of 7.7 percent of the labor force. The general economic effect of Vietnam spending, therefore, has been to divert slightly more than 2 years of normal growth in economic capacity away from other programs and alternative uses.

The same table gives a good estimate of what would happen if Vietnam expenditures were cut back at the same rate they were built up. With no provision made to replace them with other much needed Government programs, or with tax reductions to release purchasing power to consumers, the impact of the cutback in defense expenditure would be on the order of a relatively mild recession. Figure 1 shows the development of unemployment implied by the defense cutback compared with the recession of 1958. The solid line in figure 1 marks the rise in unemployment during the recession of 1958. It began with an initial level of about 3.6 percent of the labor force unemployed in

the fourth quarter of 1956, and rose to around 7.7 or 7.8 percent unemployment in the third quarter of 1958.

The calculated impact of deescalation, shown by the dotted line, begins with a somewhat higher level, initial level of unemployment in the economy, and rises to approximately that same recession level of 7.7 percent.

It goes without saying that even this impact could be greatly minimized, if not entirely avoided, by phasing in alternative Government programs and tax adjustments in pace with declining war costs.

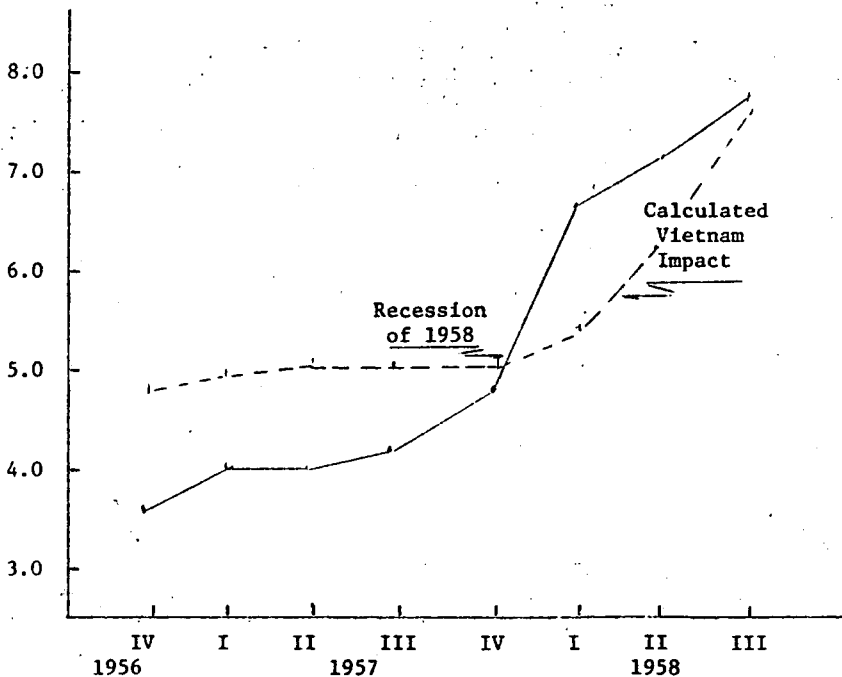
(The tables referred to follow:)

TABLE 1.—Impacts of Vietnam expenditure on gross national product and unemployment¹

	1965				1966			
	I	II	III	IV	I	II	III	IV
Defense expenditure.....	48.2	49.1	50.7	52.5	54.6	57.1	62.0	65.5
Gross national product (billions of dollars):								
Historical data.....	660.8	672.9	686.5	704.4	721.2	732.3	745.3	759.3
Vietnam removed.....	660.8	670.2	680.5	695.1	707.9	713.8	718.7	727.5
Unemployment (percent civilian labor force):								
Historical data.....	4.8	4.7	4.5	4.2	3.8	3.8	3.8	3.7
Vietnam removed.....	4.8	5.0	5.1	5.1	5.1	5.6	6.2	7.7

¹ Source: Calculated by Research Seminar in Quantitative Economics, the University of Michigan. This research is supported by a grant from the National Science Foundation.

Figure 1. Comparison of Calculated Vietnam Impact with the Recession of 1958



Chairman PROXMIRE. Thank you very much, gentlemen, for three very, very interesting and helpful papers. I must say that I am most impressed.

I would like to start with Mr. Eisenmenger. Mr. Eisenmenger, as I understood you to present your paper, it was your emphasis that the reason that New England was able to make this remarkable adjustment which you describe is because of the fact that we did have a buoyant economy, we did have diminishing unemployment throughout the country during part of this period, much of this period, and for this reason there was a demand that available workers and industry were able to fill, and that if we had not had this, the transition would have been more difficult, if not impossible, is that correct?

Mr. EISENMENGER. Yes; and my other point was that the adjustment process in New England really took a lot longer than you would expect in the case of a similar loss of economic base in other areas. In New England adjustments were required of depressed, highly specialized textile communities which had the problems posed by older workers, an immigrant labor force and the absence of growing industries.

You just didn't have any of the mobility then that you have in our rapidly growing metropolitan areas today. The adjustment problems were centered in small metropolitan areas, not in diversified metropolitan areas such as Hartford, Boston, or New Haven, which I might add, really didn't have any serious problems after World War II. Thus, it is not valid to compare the rather specialized problems of New England's textile communities, which had almost everything going against them to those of the rapidly growing, sophisticated and diversified metropolitan areas which receive most of our procurement contracts today. These areas would have almost everything going for them if there should be an adjustment.

Chairman PROXMIRE. What would you say we have learned from that particular adjustment that we can use in the Vietnam war situation, other than the point that has been made very well by Mr. Suits, Mr. Bolton, and you, that we obviously should follow a policy, tax policies, spending policies, and monetary policies that will stimulate the economy and keep the level of demand at an appropriate rate? What mistakes were made that we can avoid in the future, and so forth, in this particular New England situation?

Mr. EISENMENGER. I don't know if anyone could really have anticipated the problems in New England.

Chairman PROXMIRE. I am not saying that you could have anticipated them, but having gone through them.

Mr. EISENMENGER. What we could have done?

Chairman PROXMIRE. Yes; perhaps increased mobility is one possibility.

Mr. EISENMENGER. Yes. I hate to have a fatalistic view about these things, but you had so many people who were just about ready for retirement, older people who had held only unskilled jobs all their lives, in New Bedford and Fall River. You couldn't really expect such people to move to other areas. It is pretty hard to visualize any mobility program that could have helped them.

Chairman PROXMIRE. One of the points that your observation suggests is that we have been working in the Senate in the last few days

on a provision that people can retire on social security at the age of 60. They get a reduced benefit so the cost to the Government over a period of time is nil. This would obviously reduce labor supply and cushion the employment impact.

This obviously would diminish the pressure on jobs. It would tend to increase demand to some extent, at least in relationship to available supply. How about this as a —

Mr. EISENMENGER. It would certainly help. However, you may have very substantial Federal spending for early retirement in all areas of the country just to help what may not be a very serious problem, except in a few isolated communities. In other words, it may be an inefficient way to spend Federal money to accomplish desirable social goals. For instance, you may have to make early retirement payments in Chicago, which is a booming area, and in Worcester, Hartford, and Springfield, just to save what may be a few problem areas—New London, Conn., perhaps, a few southern towns, and maybe one or two towns in southern California. My off-hand guess is that it is an inefficient way to solve what is probably a minor problem.

Chairman PROXMIRE. Did I understand you to say that an inflationary economy is necessary in order to reduce chronically high area unemployment?

Mr. BOLTON. I think that was a point I suggested, Senator.

Chairman PROXMIRE. I see.

Mr. BOLTON. I think the past evidence does suggest that quite strongly.

Chairman PROXMIRE. So that you would say in these areas that are particularly hard hit by an ending of the war in Vietnam, that to solve the problem as far as they are concerned, given the people in that area, if they don't move, that you are going to have to have an inflationary economy in your judgment.

Mr. BOLTON. I think much would depend on the characteristics of these areas. These areas would probably not be in as bad shape as the depressed areas of the past, and I don't think—perhaps there wouldn't be too much excess demand pressure which would be required to bring an adjustment in the case after Vietnam, but one's assessment of this depends on one's standards as to what is a reasonable amount of inflation and what is a reasonable amount of unemployment. All the evidence we have I think suggests there is a trade off here, and given present policies and practices of people on mobility, it is just very difficult to have your cake and eat it too.

Chairman PROXMIRE. Let me turn this around for all of you gentlemen, just a minute. As you know, the day before yesterday General Westmoreland in New York said he foresaw no end of the war, and implied that they would need more troops in an escalation, and yesterday Senator John Stennis, in testifying, also indicated that he felt that there would be an escalation this year, an escalation of an additional 50,000 troops with an impact on the economy of \$4 to \$6 billion more spending than the administration had planned for, although they had planned for a large increase.

I would like to ask the three of you how will this affect the industry, the regional economic and the general economy? We will start with Mr. Eisenmenger. Are we equipped, in other words, to meet this in

your judgment, with the presently available labor supply and plant facilities?

Mr. EISENMENGER. This buildup would create structural problems and maybe "structural inflation" because it would increase demand in the Middle West, our industrial heartland, the more sophisticated manufacturing centers in New Jersey, New York, and New England, and probably the Far West. These are the areas that are already growing very rapidly and that have relatively high wage rates in order to pull in people from other areas.

So I think it is quite clear that, more than just an increase in aggregate demand in general, this escalation would create pockets of excess demand where some inflationary problems and wage rate pressures would appear.

It is for this reason that I may not be quite as concerned as Mr. Bolton about a possible decline in Vietnam spending, because I think the result would be a more reasonable distribution of Government spending across the country. You wouldn't have defense spending causing such differences in regional growth as you now have at the present time.

Chairman PROXMIRE. Would you care to pinpoint this, Mr. Bolton? You indicated the Middle West has had a particular increase because of the Vietnam war situation, in the demand for more conventional supplies and equipment, and less emphasis on the missiles, and so forth, which are produced on the coast.

Mr. BOLTON. I think it is certainly true if the buildup took the form of another 50,000 in combat troops that the same kind of regional distribution would occur as we have had in the previous buildup. You have two main types, the purchase of a lot of ordinary weapons, ammunition, and combat supplies in the Midwest, and you would also have extensive expenditures in the South and West for operation of training bases, and so forth, which this would require.

I think especially in the Midwest that this would be an addition to demand in an area which is already pretty much at full capacity. We know of the labor shortages, I think in areas like Milwaukee, for example, and in certain special occupations.

I think that if this additional increment were put on—perhaps Mr. Suits should really deal with this—but I would hazard a guess that we would be adding to the inflationary pressure, unless we reduced other demands in the economy below what we now anticipate they would be.

Now this may simply require keeping them at the present level. It is not necessary to cut down other demands in order to free capacity for defense demand, because the capacity of the economy is growing very rapidly at all times, about 4 percent a year.

Chairman PROXMIRE. You see, if we are going to increase capacity, and perhaps we are going to have to if we are going to have a continued escalation, and it may be more rapid than was suggested with 50,000 troops, it could be more, we have the alternative of either reducing spending or increasing taxes and hoping that the increase in taxes will be translated into less pressure by the private sector of the economy. The kind of spending that we might reduce is in the space program, public works programs, other areas that would involve some substitution of the resources that would go into the Vietnam situation.

Mr. BOLTON. That is correct. That is the choice which must be made. My own value judgments are to continue public programs at their present level and to raise taxes to reduce private spending, but reasonable men can easily disagree on this.

Chairman PROXMIRE. You would agree that the economic impact would be roughly the same?

Mr. BOLTON. In the regional sense I would say yes.

Chairman PROXMIRE. Wouldn't it be easier to pinpoint it from a regional standpoint if you reduce spending?

Mr. BOLTON. I don't understand the question.

Chairman PROXMIRE. Well, if you have a big public works program on the self or about to move, in an area where you already have a scarcity of manpower, and you expect the defense demand is going to require the use of that manpower and of those facilities, in that area you would restrain your public works operation, cut your roadbuilding.

Mr. BOLTON. That is true. You probably would be able to pinpoint the decreases more precisely. That is a point I suppose for reducing public spending.

On the other hand, as I indicated, I think an increase in taxes would reduce consumer demand, and this also would have a heavy impact on the Midwest. We know consumer demand would probably be heavily in durables.

Chairman PROXMIRE. Because of the automobile industry?

Mr. BOLTON. In durables such as automobiles or in housing construction, or something of this sort.

Chairman PROXMIRE. It is pretty hard, you know, to have anything but a very diffuse overall national impact if you increase taxes. If you follow the administration's proposal of a 6-percent increase in a surtax on individuals and corporations, I don't know how you could construe that as reducing the demand for automobiles, for instance, and then making it possible to produce more jeeps or helicopters.

Mr. BOLTON. Well, you must remember that no matter where the initial change in demand is, that there are subsequent responses, multiplier responses.

Chairman PROXMIRE. Yes. I am talking about the regional situation right now.

Mr. BOLTON. I am saying these induced effects would eventually work back into the traditional manufacturing areas as well, so that even if you reduced public works expenditures in California say, eventually some of the reduction in the impact, not all of it but some of it, would come back to the Midwest, because steel, for example, and various kinds of construction equipment, and so forth, is produced in the Midwest.

Chairman PROXMIRE. You see, the reaction I get is that when we talk about meeting the problems of escalation, and a greater demand on our resources and inflationary pressures, the answer is to increase taxes.

Then when we come to the deescalation problem, negotiations, the answer is to increase public spending on programs that we need, spending on antipollution, spending on various antipoverty programs, and so forth.

So that it would seem that the taxpayer gets it either way. He doesn't get any relief on deescalation, at least that doesn't seem to be the top priority, and he has to pay more on the escalation.

Mr. BOLTON. That is true.

Chairman PROXMIRE. I am just asking that to have you justify it.

Mr. BOLTON. The people who advocate this are not really being inconsistent or anything. They express a preference that the share of the gross national product going into public goods is too small, or certainly should not be any smaller, and every taxpayer is also a citizen who shares in the benefits of air pollution control, expenditures on education, and so forth. As I say, this reflects my own value judgment.

Chairman PROXMIRE. Well, also of course, you can be more precise in your choices. You can be against air pollution and against water pollution and at the same time feel that there are areas of public spending that ought to be reduced.

Mr. BOLTON. Yes.

Chairman PROXMIRE. Like maybe the space program.

Mr. BOLTON. Yes.

Chairman PROXMIRE. And some other areas of public expenditure, perhaps roadbuilding, and maybe some of the others.

Mr. BOLTON. Yes, I would certainly agree with that.

Chairman PROXMIRE. Mr. Suits?

Mr. SUITS. I would like to endorse that last point. There are many areas of public expenditure which are, after all, critical. It is not a matter of choice whether we have a police force or do not have a police force. By the same token, I should say right now such areas as pollution control and a strong poverty program are critical. We really cannot afford to cut these back.

I am less impressed than many people appear to be with the urgency of our space program, and I would be perfectly satisfied to reduce expenditures on that score. Moreover, this is precisely the area where one would get the largest tradeoff as far as war production is concerned. The space program is certainly something that one should be prepared to sacrifice I think.

One cannot expect to fight a war without making some kind of sacrifices. The question is whether we should sacrifice new automobiles or new clothes or space programs, or whether we should make sacrifices in areas of pollution control and poverty reduction programs.

I would like to say that the economic impact of the overall effect of prospective escalation is certainly the last aspect of it we are concerned with in reality. Nevertheless, to turn our attention to the economic implications of it, I would think, on the basis of my calculations, that our economy is not now in a tight inflationary position. We are actually in a better position than we were 6 months ago to absorb an additional \$4 billion of defense expenditures at annual rates. I presume this is the kind of number that you meant, an additional \$4 billion this year above the \$12 billion that people are already—

Chairman PROXMIRE. You see there is already a big increase for defense.

Mr. SUITS. Yes.

Chairman PROXMIRE. I was just asking what was the increase for this year. I don't have it right in mind, but as you know, it is very substantial.

Mr. SUITS. Yes.

Chairman PROXMIRE. If on top of that you have the midpoint that will be \$5 billion, according to Senator Stennis yesterday, a \$5 billion

increase on top of the massive increase we already have, you have, No. 1, the problem of the impact on the economy generally, which I am sure you are addressing yourself to.

You have, No. 2, the problem Mr. Bolton was concerned about, and I think properly so, the impact on particular regions, which are already straining their resources and have a real manpower shortage, and so forth, the impact on them.

Mr. SUTTS. Yes. Now to take the overall picture, last November in making our projections for calendar 1967, we allowed for an additional \$12 billion over calendar 1966 in defense spending.

Now if this would be an additional \$4 billion on top of that, it would add roughly 1 percent to the 1967 GNP.

Chairman PROXMIRE. You are talking about that combined with the multiplier effect?

Mr. SUTTS. Yes.

Chairman PROXMIRE. Incidentally, the staff questions your multiplier. They think that 1.85 is small, and that it could easily be substantially more than that. The impact of this spending would be in my view considerably more than 1.85.

Mr. SUTTS. Let's take up this question of the size of the induced effects; 1.85 does strike many people as being a low multiplier. I think the reason is that we have an exaggerated notion of how much of our demand is actually induced by income as compared to outside forces, consumer whims and so on.

The position of the automobile industry, which—at least up until the last couple of weeks—has had declining sales in face of a very rapidly rising consumer income, is a case in point.

Now the multiplier 1.85 works out roughly as follows. If we begin with an initial \$1 of gross national product, not all of this of course reaches the household. Some of it goes for depreciation allowances, some of it is taken in taxes, some of it goes into corporate saving, and so on. Out of an initial \$1 of GNP, only about two-thirds, about 67 cents actually reaches the household.

Chairman PROXMIRE. This is, you would agree I am sure, very theoretical, isn't it, because if you are doing this in a period like 1964, 1965, 1966, when we have this massive acceleration of business investment in plant and equipment, when it virtually exceeds, well, it is about at a level with the cash flow, and they invest almost everything they have, their depreciation reserves, their undivided profits, everything that is not distributed as dividends, under these circumstances these assumptions you are making wouldn't be true.

Mr. SUTTS. Yes, this is quite correct. If you are going to include the pressure on capacity utilization, such as we saw last year, and the impact that this has on business plant and equipment expenditure, then the multiplier in this sense could very easily be as high as 3. That is correct.

Chairman PROXMIRE. I am very impressed and interested in your estimate. It could be misconstrued easily, that the Vietnam situation, if we didn't have the Vietnam war, and we didn't follow any other compensating governmental policies, we could have a depression, in the fourth quarter of the last year, a depression to the extent of 7.7 percent of our work force out of work.

Chairman PROXMIRE. In other words, unemployment would be close to 8 percent.

Mr. SUITS. Yes.

Chairman PROXMIRE. It would be at a level that most of us would feel was a genuine recession.

Mr. SUITS. Yes. This is, of course, supposing merely that we subtract out the Vietnam impact, and then look at what is left. This doesn't imply that we wouldn't have had other uses for these same resources.

Chairman PROXMIRE. Other uses, but at the same time, if you look at the non-Vietnam sector of our economy, while the increase has been modest, there has been an increase in general in spending, in most of our programs.

Education has increased at a very substantial rate as far as Federal Government assistance is concerned, and I am sure you are not satisfied and many other people aren't satisfied with the rate. It could be more, but it is a rapid rate, if we are going to absorb all of this \$22 billion we are spending in Vietnam, in these other areas.

Don't you think it is unrealistic to assume that Congress would spend that much money?

Mr. SUITS. Oh, expenditures I don't know. Let's put it this way. In the last 10 years, say since the recession of 1958, I believe that all of us, and perhaps most particularly the Congress, have come to a much greater appreciation of the role of the Federal Government in balancing the economy.

I think the tax reduction of 1963, I think the rescinding of the investment tax credit, I think the President's request to have the investment tax credit reapplied, the current application for the 6 percent tax add-on, all of these things bespeak a much greater sophistication than we have ever had before in this area, and I have every confidence that the Congress and the administration would take such steps as they would deem necessary to forestall the occurrence of a recession of this magnitude.

Chairman PROXMIRE. What are you saying, if we could remove the Vietnam war situation, we could have two things. We could have an increase in Government programs, we could have a substantial tax reduction.

Mr. SUITS. That is right, in such combination as we thought was best suited to the needs of the country.

Chairman PROXMIRE. And I take it you would also say that as we move into a period of negotiations to the extent we ever do, that under those circumstances, cease-fire, that under those circumstances we could have both.

Mr. SUITS. That is right.

Chairman PROXMIRE. Yesterday we were cautioned, I think very wisely, by Senator Stennis that the Defense Department is following a policy of living off their inventories, depleting them and they are doing this deliberately and they have said so, but he said it will be a long time in his judgment before those inventories can be replenished, and before we can bring the Defense Establishment back up to the level that he thinks the President and the Congress feels would be adequate, so that we do have that compensating factor and that gradual blending into a more normal situation.

Mr. SUITS. That is correct.

Chairman PROXMIRE. Do you want to comment, Mr. Bolton?

Mr. BOLTON. Yes. I just wanted to make sure my previous remarks weren't misunderstood. The taste one shows for a combination of public and private goods depends a lot on whether you are talking about four or five billion dollars or whether you are talking about \$20 billion. I didn't want to imply that I was in favor of spending all of it in either case on public goods. I simply was expressing the idea that the proportions might be increased somewhat in favor of public goods, but I certainly would support lower interest rates to stimulate private investment, private construction, and some tax decreases, if we are talking about a cutback, in order to stimulate private demand. I just want to make that clear.

Chairman PROXMIRE. Mr. Eisenmenger?

Mr. EISENMENGER. I want to make one comment. I would agree with Professor Suits that a reduction in spending for our space effort would make a great deal of sense when you have a national war effort going on, because these two activities do use the same resources. But, and I would also like to emphasize that I am an economist and not a political scientist, it is hard to visualize how you could cut the interstate highway program differentially in your fast-growing areas, say in the Middle West, the Far West, or the Northeast. I imagine it would be difficult to get political acceptance of that idea.

Chairman PROXMIRE. Yes. The roadbuilding program would be hard to cut unless you do it overall, as the President tried to do in December when he announced that he was shrinking the program, and did. There are other programs that aren't individually as big as that program, but are big, that you might conceivably be able to slow down, especially with regard to dam building, Federal buildings, and that kind of thing.

Mr. EISENMENGER. Yes.

Chairman PROXMIRE. I will yield to Mrs. Griffiths in just a minute. I would like to ask, and this is almost on behalf of the ranking Republican member, Mr. Curtis, who has been very diligent in questioning about this, and I think building up a good strong case.

Many of us feel we ought to have job vacancy statistics. The administration has recommended this, but the Congress has failed to provide it. We feel this would be a helpful element in providing for the kind of labor mobility we need. We don't have these job vacancy statistics on a national basis. There are some that we get in the area of, what is it, 15 or 16 labor markets, but we don't have it on a comprehensive basis.

What is the feeling of you gentlemen? Do you feel that this would be helpful in view of the fact that you have spoken at some length on the importance of mobility?

Mr. EISENMENGER. I would rather not talk too much about it, because I could soon run beyond my area of competence. I believe Sweden and the Netherlands do have a system of national registration and companies supply job vacancy data. I have a feeling it would take quite some time just to arrange the governmental machinery for data collection. The difficult question is: Do the benefits exceed the costs? [I just don't have any special competence. I would rather not comment.]

Chairman PROXMIRE. The cost is fairly modest as I recall, \$10 million, and we would get information, accurate information on unem-

ployment, the availability of jobs. We would know where they were and we would be in a much better position to encourage people, therefore, to move from one area to another and to maximize our resources and prevent idleness in one area and prevent scarcity where you have production and where you needed people.

Mr. EISENMENGER. It has always sounded very plausible to me, and I would tend to agree with you. I just don't know what the mechanical administrative problems are—requiring every employer to record with some governmental agency when he has a job vacancy. But it sounds reasonable.

Chairman PROXMIRE. Certainly in the period where we are moving possibly to escalation in Vietnam, and where you are going to need more production, and you want to ease inflationary pressures, this might be helpful. Mr. Bolton?

Mr. BOLTON. Yes, I would say it would certainly be a good thing. I think the compliance problems would be eased by the fact that many employers are crying for labor, so they presumably would be quite willing to give information.

But I would emphasize that information is just one part of mobility. We need all the other things which go along with it. As you say, the encouragement, and perhaps some financial support and extensive retraining programs, and so forth. Just knowledge of job vacancies will never be sufficient in itself.

Chairman PROXMIRE. Mr. Suits?

Mr. SUITS. Yes, I think there are two aspects. The question of compliance, for example, has to do with the question of obtaining a complete job inventory, so to speak, or a complete listing of positions open. That would be one thing that one might aim at.

On the other hand, if we are thinking merely of statistics that match the present unemployment data on a household basis, or employment data on an establishment basis, we might very well depend on a much smaller sample of firms to provide this information, to get a general picture of the pattern of openings, of where we need people and of what kind of people are available to fill these jobs.

Chairman PROXMIRE. So you only have a sample in unemployment.

Mr. SUITS. That is right, and this might be adequate for most purposes, certainly for purposes of overall planning, if we had a corresponding sample from a small sample of establishments. I am not a sampling statistician and I don't know how many establishments would be needed, but reliance on a sample would reduce greatly the total burden on the business community, so that it is quite feasible to collect data of this kind. At the present time we are more or less flying blind. We only have one side of the scissors, and we don't know where the other side is.

We know how many people are looking for jobs, but we don't know how many jobs are looking for people, nor what kind of jobs are looking for people. This would be immensely helpful.

Chairman PROXMIRE. Very good.

Mrs. Griffiths?

Representative GRIFFITHS. It seems to me that you have too many things that mask the real unemployment of the country. I have just come from Ways and Means, and we are doing social security. Part of

the unemployment of the country is masked by the welfare laws. You can't tell who is unemployed or who is available for work because of it.

A large part certainly of the money that is spent for defense is spent in the State of California. California absolutely will not permit a woman to work, I understand, over 48 hours a week. They have some very qualified women who are not permitted overtime. Now, I understand that this case is coming up through the courts, and maybe the Supreme Court will have sense enough to say that a woman is a person and that the equal protection of the laws apply, and therefore, you will be able to hire them for more than 48 hours.

But part of the scarcity of labor would be done away with if they could be hired, and this is particularly true in defense industry. It seems to me that one of the problems of the defense industry is that it is occupied by highly unionized, highly articulate workmen, plus the fact that you are paying for the lobby of the manufacturers out of Federal money, to come down here and lobby to get additional contracts, and to set up a system where a large part of their expenses are paid that is really not true with other manufacturers.

Therefore, I think that any statistics have to be more carefully looked at than we are now drawing statistics for unemployment. Would you like to say something?

Mr. BOLTON. May I ask, Does that California law apply to all women or just those with children?

Representative GRIFFITHS. All women.

Mr. BOLTON. That does strike me as being unreasonable then; yes.

Representative GRIFFITHS. What objection do you have for those with children? Why would you like it to apply to women, those with children? Fifty percent of all women are working now. Why do you want some to stay home?

Mr. BOLTON. I was just going to suggest that there is some basis for having some standards and not allowing a mother to neglect her children, even if it means getting a—

Representative GRIFFITHS. You mean like a woman with a 400-word vocabulary, it is a good idea for her to stay home with all 13 illegitimate children.

Mr. BOLTON. I agree that is a problem.

Representative GRIFFITHS. It is a very bad idea. The idea is that those children should be put some place where they have a chance and the woman herself should be given a chance.

Some years ago I asked in this committee about machine tools, and finally the GAO has come in with a report, and I found out that, of course, the original tooling clause was put in the Defense Department contracts, so that a manufacturer would not be compelled to purchase equipment that was not ordinary equipment for his company, the exotic equipment, the equipment that was used purely for the manufacturer of defense products.

Now I really was thinking about tools, jigs, dies, and fixtures that are put on equipment, and that are not kept track of by the Federal Government. I asked the GAO to see if they could find out really where that equipment was and how we do keep track of it.

In one plant, I believe in California, the manufacturer told them that he put on 20 men for a year to sort out the Government's equipment, as opposed to his own.

They found out all kinds of interesting things. One manufacturer had two 4-ton presses, and he asked for an 8-ton press, in the interests of economy. He used it for 1 year in the aircraft industry, and then the whole thing went over to commercial production and he was back on the two 4-ton. So that in fact in this industry, we are subsidizing some manufacturers as opposed to others, where they are really competing commercially.

This hasn't been done. This is done with defense contractors. It is not done with general and commercial contractors. Personally, I would like to find out where we are wasting the money, and I am sure that we will be able to pick up quite a lot of money and we will be able to make this change more easily.

Thank you.

Chairman PROXMIRE. I would like to ask each of you gentlemen, as professional economists, how you react to the administration's preparation, for deescalation. If hostilities should cease tonight, the administration has no contingency plans to put into effect tomorrow morning.

All of you have stressed the need for prompt action. What is your feeling about this? There is the Ackley committee that has been created that will report in September or so, but until that time, we aren't prepared. How about it?

Mr. BOLTON. I certainly would say that there ought to be advance planning. I do not know how much such planning there is in the administration. My impression is that there is not a great deal.

Chairman PROXMIRE. Our staff has checked with the various administrative agencies, and they find again and again in one agency after another—we don't have any plans.

Mr. BOLTON. Well, then I would certainly say that is unfortunate. I think that to some small extent, that perhaps our willingness to try to find a way to cut back on the defense budget at certain times would be increased if we were more confident that we could adjust in the economic sense.

I think that was perhaps especially true earlier. I don't know whether it really applies to the particular situation. But I for one would think that such advance planning might actually contribute in a small way to a situation in which the planning would have to be used.

Chairman PROXMIRE. Mr. Eisenmenger.

Mr. EISENMENGER. Are you thinking of planning in advance for the specific direction of accelerated Government spending in the case of deescalation?

Chairman PROXMIRE. Yes.

Mr. EISENMENGER. Then, if there is no planning at the administrative level, you should be very concerned. If you don't have that type of advance planning, then you are more or less forced to use generalized fiscal and monetary policy in reaction to a deescalation.

A lot depends on how important it is to you that Government spending be increased in specific areas.

It doesn't take much advance planning just to have a tax cut. But to reallocate Federal spending wisely does require planning. That is my point.

Representative GRIFFITHS. Mr. Chairman, I might point out that I once believed that a tax cut was a very simple thing to enact.

Mr. EISENMENGER. I don't mean that.

Representative GRIFFITHS. But it took the Ways and Means Committee a week to reinstitute the investment credit, and I may point out the Senate has been working on it ever since.

Chairman PROXMIRE. That is a relatively simple restoration that is almost unanimous. Everybody is for it. The administration has asked for it, in view of the economy, but you can imagine some other kind of reduction.

Mrs. Griffiths had a wonderful statement. She said she thought a tax cut would go through the Congress quicker than a declaration of war.

Representative GRIFFITHS. I certainly did. I couldn't imagine anybody in the whole world that wouldn't be glad to have a tax cut.

Chairman PROXMIRE. I must say I shared that view, but I have been disillusioned too.

I would like to ask you, Mr. Suits, because this is so crucial to your analysis, which is fascinating and I know you are a great expert in this area, if you could spend just a few more minutes justifying your multiplier figure. The staff is very troubled about it and I am concerned about it and it is most important, of course, if we are going to get a fair analysis of what we are up against if we do reduce spending or if we increase spending.

Mr. SUITS. I will be happy to.

First, may I say that the multiplier figure that I used is derived from what we call an econometric model of the U.S. economy, a system of approximately 90 statistical equations that represent the various interrelationships in the economy. However, the general order of magnitude of the multiplier is very easily justified.

Out of an additional dollar's worth of production, after we take off depreciation allowances, taxes, corporate savings, contributions to social insurance, personal taxes, and so on, we get down to about 67 cents of household income available for spending—what we call "disposable income."

The figures indicate that taking one year with another, and one family with another, about two-thirds of this additional disposable income gets spent, which means that out of an additional increase in production of \$1, you get something like four-ninths of a dollar of additional spending. This responding ratio of four-ninths gives us a multiplier of nine-fifths. So that the overall general magnitude 1.85 is quite reasonable.

Now this multiplier includes in its impact the accumulation of additional inventory that accompanies higher sales levels, but it does not include in its impact the additional investment in plant and equipment that generally accompanies a very tight demand on our productive facilities.

In other words, 1.85 is what you might call a direct impact multiplier. It does not envisage a second or third order effect, in which business firms go out and add to their plant and equipment budgets as they did during last year.

Chairman PROXMIRE. So it is a conservative modest estimate.

Mr. SUITS. That is right.

Chairman PROXMIRE. It doesn't follow all the way through.

Mr. SUITS. That is right.

Chairman PROXMIRE. And it could be substantially higher.

Mr. SUITS. That is right. If one takes this plant and equipment into account, it could very easily be as high as three.

Chairman PROXMIRE. Why do you figure that the employment multiplier of a Government shipyard is lower than a private shipyard.

Mr. SUITS. I haven't any idea. I refer that to my colleagues.

Mr. EISENMENGER. I was the one who made that statement.

Chairman PROXMIRE. You were the one who said that, I beg your pardon.

Mr. EISENMENGER. At a Government facility such as a shipyard, most supplies are not obtained in the immediate metropolitan area.

Chairman PROXMIRE. You weren't talking about the national multiplier.

Mr. EISENMENGER. No, no; the local multiplier.

Chairman PROXMIRE. The specific local. That would answer it.

Mr. EISENMENGER. At the Portsmouth shipyard many supplies are obtained from outside.

You also have the special situations that many of the shipyard workers live outside of the Portsmouth area. They travel 30 to 50 miles to Portsmouth, because the shipyard pays high wages. Thus, there are some special conditions involved in that estimate of the Portsmouth Shipyard multiplier.

Chairman PROXMIRE. I have another question for Mr. Bolton. I have worked, as I think Congresswoman Griffiths has too, on the depressed areas legislation. Senator Paul Douglas, who was chairman of this committee, was a great sponsor of that legislation and I co-sponsored it. We sponsored it on the basis of feeling that there is real value in trying to preserve a community, and of course you can go too far in this direction, but you do have the facilities there, you have the schools there, you have in some cases, in many cases you have a good strong civic sentiment of people who want to stay together and work together, and so forth.

Doesn't your analysis suggest a somewhat callous view toward the community that has lost contracts, that has become very heavily and deeply involved in defense work? Then when the Vietnam was is over, we have a deescalation, you walk away from it. Isn't there something there that maybe is a little more than just straight economic analysis that we ought to fight to try and give the people there an opportunity at least to preserve?

Mr. BOLTON. I don't think it is callous, Senator.

Chairman PROXMIRE. Maybe "calloused" isn't the right word. I would just say ignoring other values possibly.

Mr. BOLTON. Let me say a few things. There probably aren't going to be that many areas, and I put in those remarks just to make sure that we didn't try to preserve every single community in the country.

Now I don't think it is callous, because I was very careful to say that the people in the areas should be helped, but I am trying to say that it may be better simply to help them by giving them transfer payments or perhaps an early retirement plan, or something of this

sort, rather than try to carry on certain kinds of production there inefficiently due to subsidies.

Chairman PROXMIRE. No, no; I am thinking of something else. You are from Michigan, is that right?

Mr. BOLTON. No; I am from Massachusetts.

Chairman PROXMIRE. You are from Massachusetts. Mr. Suits is the man from Michigan. Well, Massachusetts I am sure has the same situation that upper Wisconsin has in some of its areas, perhaps even more intensively.

I am thinking of a town that used to be a mining town in northern Wisconsin. The level of education is high, the level of skills are high. The people like the town. It is on Lake Superior. It is a beautiful place. It has real recreational possibilities, with imagination and capital. It would seem to me that we ought to take a very long look at this situation before we conclude that it is just uneconomical, because obviously they can't mine anymore, and just walk away from it.

Mr. BOLTON. I would agree with that. I wasn't saying that. In all of these areas there is a lot of capital, especially public capital, and there is perhaps a skilled and educated labor force which might be converted into other kinds of production. But you know, I think we have to make sure that there is some capability there, and if we simply have a blanket policy to save every area, we are being somewhat callous to the taxpayer and all the other citizens who have to suffer the wastes of such inefficiency.

There would be a difficult problem there of balancing the few against the many. I, for one, would not want to be an administrator who had to carry out the kind of hard look that I am suggesting. It would be very difficult politically. But as I say, if you do have a blanket policy, which would penalize all the rest of the country, then I think that would be wrong also.

Representative GRIFFITHS. I asked Mr. Wirtz in general meetings on the Economic Report if any of the money had been used to transfer people from one area to another, and there hasn't been.

Mr. BOLTON. My impression is that this has not been a common strategy.

Representative GRIFFITHS. They just won't leave.

Mr. BOLTON. You know, I consider myself a very humane person, Senator.

Chairman PROXMIRE. I am sure you are. You wouldn't be teaching at Williams, is that right?

Mr. BOLTON. Yes.

Chairman PROXMIRE. If you weren't humane.

Mr. BOLTON. And I would say that if we try very hard, and if in the end the people do not move, then I don't want to leave them in the lurch. I would want to help them, but I think we ought to try very hard. That is all I am saying.

Chairman PROXMIRE. We are not arguing about helping people because I am sure you want to help them as much as I do, or more. What I am talking about is whether or not we shouldn't consider the economic viability of an area.

Mr. BOLTON. I think you should.

Chairman PROXMIRE. Because a defense industry has moved out, there are other alternatives that you can consider that are just as pro-

ductive economically with some capital investment and some retraining and that kind of thing.

Mr. BOLTON. I agree with you. As I say, I think the areas which might have to be abandoned are probably very few. In an economy, after all, where the population is growing rapidly and the spaces are filling up, and many of the big metropolitan areas are already becoming too crowded and too smoky, it may mean that we need these areas very soon.

Chairman PROXMIRE. I am just about through. There was one question that the staff suggested we ought to ask Mr. Suits, because you haven't had a chance to comment on it, and that is your reaction on the absence of contingency plans in the event of deescalation in Vietnam.

Mr. SUITS. The ideal contingency plan, I suppose, is one that is already on paper in a hard form, and funded, at least on a standby basis. It would be ideal if we could have a package of these worked out.

I don't know what the political and constitutional problems are, but surely on the administrative side, the least we could ask is for a committee or group to sit down and say what kind of economy do we want to have at the end of this war in Asia? If they would compile a list of the kind of programs we want to bring in, it would put us much in the position that we were in just recently when we turned off the spigot on the road program and then turned it back on again.

Chairman PROXMIRE. On a much bigger basis, yes.

Mr. SUITS. On a much bigger basis. Now, as I say, I don't know what may be the political problems and the constitutional problems of working this out, but surely on the administrative side there is no difficulty in at least having the blueprints, and knowing what kind of funding would be required.

Chairman PROXMIRE. Because certainly you were saying earlier that you thought the economic considerations were much less important than the other considerations.

Mr. SUITS. Oh, yes.

Chairman PROXMIRE. And, of course, you are dead right, except that economic considerations, I think, enter into our attitudes toward Vietnam, if we are honest with ourselves. We have to recognize that people are employed, they are getting profits, they are getting salaries, and so forth, out of this situation, and I am convinced that the economy would be far better off if Vietnam could be over in all kinds of ways, not only in terms of a tax cut and other programs, but in many, many other ways, lower interest rates, almost every aspect of the economy would be improved, and improved with any kind of prudent action on the part of the Federal Government.

Mr. SUITS. There is absolutely no question about that.

Chairman PROXMIRE. Gentlemen, thank you very, very much. This has been a most enlightening and informative morning, and we very much appreciate it. Thanks a lot, for a fine job.

The committee will resume its hearings in this room at 2 o'clock this afternoon.

(Whereupon, at 11:50 a.m., the committee recessed until 2 p.m. of the same day.)

AFTERNOON SESSION

Chairman PROXMIRE. The committee will come to order.

Our witness this afternoon is a distinguished professor, Murray Weidenbaum, chairman of the Department of Economics, Washington University, St. Louis, Mo.; a man who has done more works I think, in this area than anybody in the country, and who has compiled a most helpful, detailed study which I hold here, "The Impact of Vietnam War on American Economy."

Professor Weidenbaum, I can tell you that we have based these hearings very largely on your excellent work, which has been referred to by witnesses, including witnesses this morning, and we are very privileged to have you. I apologize for the absence of some of the other members, but there will be other members here later today, and I am sure you appreciate these are mighty busy times; other committees are in session.

You go right ahead.

STATEMENT OF MURRAY L. WEIDENBAUM, CHAIRMAN, DEPARTMENT OF ECONOMICS, WASHINGTON UNIVERSITY

TIMING OF IMPACTS

Mr. WEIDENBAUM. Thank you, Mr. Chairman, for those very kind remarks. I should like to point out that the views I express, both in that formal report and orally today, of course, are strictly my own opinions.

I would like to just offer orally the highlights of that 100-plus page report.

Chairman PROXMIRE. That will be fine. Without objection your full report will be included in the record at the end of your remarks.

Mr. WEIDENBAUM. The key points are:

1. The persistent uncertainty as to the nature and extent of the U.S. commitment in Vietnam.

2. A lack of general understanding —

Chairman PROXMIRE. Will you repeat that first point again.

Mr. WEIDENBAUM. Persistent uncertainty as to the nature and extent of the U.S. commitment in Vietnam.

Chairman PROXMIRE. Right.

Mr. WEIDENBAUM. 2. A lack of general understanding of the speed with which the military buildup affects the economy.

3. Confusion in interpretation and delay in the release of budget information in 1966.

4. Resultant basic problems in national economic policy which we are now facing.

An evaluation of the impact of U.S. expenditures for Vietnam on the American economy must begin with a review of the events in Vietnam itself and of the increasing U.S. involvement there.

From 1954 through 1963, the United States was providing minor amounts of assistance. Fewer than 1,000 American troops were involved. Beginning in November 1963, with the overthrow of the Diem government, the U.S. commitment increased, but slowly at first.

By the end of 1964, the total of American troops in South Vietnam was a little over 23,000. A significant change in the nature of the conflict occurred in 1965—the intensification of infiltration of arms and personnel from North Vietnam. The buildup of U.S. troops then accelerated rapidly, reaching over 184,000 at yearend.

Since early 1966, American forces have been conducting the bulk of the offensive military actions against the Vietcong. The South Vietnamese are primarily responsible for the more passive missions, such as pacification. Total American troops in South Vietnam have exceeded 400,000 since the end of 1966.

In retrospect, the U.S. role changed from support to active combat when the South Vietnamese no longer could defend themselves against the combined onslaught of the Vietcong and massive infiltration of North Vietnamese equipment and manpower.

It is futile to speculate as to anyone's ability to have forecast these developments. The evolution of the U.S. role in Vietnam could scarcely be inferred from the day-to-day statements of administration spokesmen. On various occasions in 1963 and 1964, Secretary McNamara stated that the war was to be fought by Vietnamese, not by U.S. troops.

In 1965, after U.S. troops were in combat, he stated that the South Vietnamese would bear the brunt of the fighting. My purpose is not to criticize the inability to make accurate forecasts under extremely difficult conditions, but to emphasize the great uncertainty that existed in evaluating the impact on our domestic economy of the expanding U.S. commitment in Vietnam.

From the viewpoint of demands on the resources of the American economy, the Vietnam war really had its initial impact in fiscal 1966. Prior to that the Budget Bureau estimated that the additional costs of Vietnam were \$100 million or less a year, a rather insignificant factor in a \$50 billion military budget and a \$700 billion economy.

The January 1966 budget message, in contrast, estimated that the Vietnam war would require \$14 billion of appropriations in fiscal 1966 and \$4 billion of expenditures. It appeared at the time, at least to many observers, that the Nation could wage a two-front war without raising taxes—the war on poverty and the war in Vietnam. That theme was enunciated in the budget message and in the President's January 1966 Economic Report, where he stated:

"The fiscal program I recommend for 1966 aims at full employment without inflation" and that "this budget provides for the maintenance of basic price stability."

In retrospect, things did not work out that way; 1966 witnessed the most rapid inflation since Korea. The basic explanation is that, despite the assurances of the Economic Report, the increases in government civilian and military demand, coupled with the continued expansion in business investment, exceeded the capability of the American economy to supply goods and services at then current prices.

Two key factors helped to explain what happened. The first factor was the underestimate in defense spending. The January 1966 budget projected the cost of Vietnam at \$10 billion in fiscal 1967, and the current estimate is almost double that.

The second factor is the underestimate of the speed with which a military buildup affects the economy.

The key point is that the bulk of military production is carried on in the private sector. As a result, when there is a large expansion in military orders, as occurred in fiscal 1966, the immediate impact is not registered in the Government budget. The initial impact, in terms of demand for resources, is recorded by the Government contractors in the private sector.

Hence, during the early stage of a military buildup, we have to look at the private sector to see the expansionary effects. This is hardly a new phenomenon. The same type of underestimate contributed to the inflation in the Korean buildup. Unfortunately, the same mistake was repeated during the first year of the Vietnam buildup.

The most rapid expansion of military orders occurred in 1966. So did the most rapid rate of inflation since Korea. That was the period when the Nation, and particularly the administration economists, were still congratulating themselves on the success of the 1964 tax cut. Little need was felt, at least officially, for greater fiscal restraint.

To some extent, the inflationary pressures of the Vietnam buildup were accentuated by a liberal monetary policy in 1965, some of the results of which continued to be felt in 1966. Beginning in December 1965, however, the Federal Reserve Board took steps to tighten the availability of credit.

In fairness, some positive impacts of Government economic policy in 1966 should be acknowledged. The Nation achieved a large and rapid shift of resources from civilian uses to military programs, without direct controls over prices or wages. Moreover, economic growth and improvement in the living standards continued despite the defense spending increases and inflation.

In a sense, this post mortem may be too late. The demand-pull inflationary pressures of 1966 seem to have run their course. We do have a legacy of cost-push inflationary pressures which are likely to plague us later this year, particularly as major union agreements come up for renewal.

Looking ahead, however, in the near future the Nation may once again find itself in a situation where economic and fiscal policy fail to take account of the timing of the economic impact of Government spending. If that turns out to be the case, avoidable inflation or recession may occur once again.

Should another major escalation occur in the U.S. commitment in Southeast Asia, it would be important to promptly institute restraining fiscal measures to offset the inflationary impact.

Conversely, should peace come to Vietnam, it would be essential to promptly put into action expansionary fiscal measures to offset the immediate deflationary effects of a defense cutback. Most economists agree that the economy can successfully adjust to a defense cutback, or an expansion. The concern mainly is over our political willingness and capability to act promptly enough. The recent record is hardly reassuring.

As my final point, I suggest that this committee recommend a single simple but basic innovation: A regular monthly report, a set of military indicators, comparable to the economic indicators, presenting the basic unclassified data on military programs. This report should contain:

1. Data on military obligations and expenditures by program category.
2. Data on military manpower, including draft calls.
3. Data on defense contracts by product group, industry, and geographic area.
4. Data on defense materials set-asides.
5. Data on orders, sales, inventories, and backlogs of defense industries.
6. The latest official forecasts of military programs, as well as comparable historical numbers, and
7. Seasonally adjusted as well as raw or actual figures.

Most of these numbers are available on a hit-and-miss basis, buried in a slue of Government reports, but are never put together in any one single release. This military indicator report should be published at a regular time each month, be readily available to the general public, and the data should be as current as Federal statistics generally.

The military indicators report should be as short as possible, omitting mere operational statistics and other data not essential for intelligent public policy analysis.

Such a report would only be telling us as much about the major component of the public sector as the Government already tells us about some of the smallest parts of the private sector. A monthly military indicator would be a major advance in our economic knowledge and would fill a key gap in our statistical information system.

Thank you.

Chairman PROXMIRE. Thank you for an excellent, concise statement, which also ends on a most constructive note for the future. Would you suggest that we could include in the monthly economic indicators these specific military statistics that you are talking about?

Mr. WEIDENBAUM. I think that would be too tall an order. Perhaps the highlights.

Chairman PROXMIRE. Why couldn't we simply have a table, which would include everything that you have suggested, and simply have it as an additional table?

Mr. WEIDENBAUM. Senator, it would be the longest table, maybe the size of this table I'm sitting at.

Chairman PROXMIRE. Is that right? You said you didn't want everything, and you listed how many specific—

Mr. WEIDENBAUM. Seven points.

Chairman PROXMIRE. Was it seven?

Mr. WEIDENBAUM. Yes. It could be shorter.

Chairman PROXMIRE. You also stole my first question. Let me read my first question to you and see if we are thinking along the same line. How valuable would it be for the Joint Economic Committee to receive a single monthly report from the Defense Department containing new orders in the latest month, the total outstanding orders, the expected future delivery dates of both new orders and total outstanding orders and the expected time phasing of prepayments on new orders and outstanding orders.

I take it that is part of what you are asking.

Mr. WEIDENBAUM. Yes, sir.

Chairman PROXMIRE. But only one part.

Mr. WEIDENBAUM. That is right.

Chairman PROXMIRE. For instance, this doesn't include the manpower information which you suggested.

Mr. WEIDENBAUM. Or the data on the industry side, the defense industry side, the contracts, the backlogs, inventories. I think the two recommendations are certainly consistent.

Chairman PROXMIRE. Let me ask you this. You say this would be a very long table. How many tables would this amount to if it were comparable to the economic indicators? Seven or eight tables?

Mr. WEIDENBAUM. I really haven't sat down to design it, but say, six to 10 pages.

Chairman PROXMIRE. Six to 10 pages?

Mr. WEIDENBAUM. That should do it.

Chairman PROXMIRE. Now, is this information available now to the Defense Department?

Mr. WEIDENBAUM. Yes, sir. All of this information is released, but not on a regular basis, and often it is buried in a variety of either operational reports or other statistical releases of the Department of Commerce or the Department of Defense, but it is not put together in any one single place, and it is not released in a regular fashion.

Chairman PROXMIRE. How big a job would it be, how big a staff would it take, to do this job, and how many hours would they have to work? Could two competent men do this, in your judgment, or would it be a matter of 10 or 20?

Mr. WEIDENBAUM. I think much more of two than of 10 or 20. I also think, though, what it really would take is official policy that the data would be made available.

Chairman PROXMIRE. Can you think of any reason at all why the availability of this data wouldn't serve the national interest and the interests of the President and the Congress?

Mr. WEIDENBAUM. I could think only of positive reasons why this data would foster intelligent public policy action.

Chairman PROXMIRE. There is nothing that is classified.

Mr. WEIDENBAUM. Not at all.

Chairman PROXMIRE. It is all disclosed.

Mr. WEIDENBAUM. Yes, sir.

Chairman PROXMIRE. But it is not pulled together and it is not regularly recorded.

Mr. WEIDENBAUM. That is right.

Chairman PROXMIRE. Do you know of any request for this kind of information that has been denied or turned down?

Mr. WEIDENBAUM. There have been many recommendations, including recommendations by economists testifying before this committee for this kind of information. There have been reports of this committee which recommended not an identical set of data, but many of these data. The point on the inventories of Government producers, suppliers, this recommendation appeared in a report submitted to the Joint Economic Committee, as I recall, in the early fifties. There is a long history behind this.

Chairman PROXMIRE. Well, I will tell you this. In view of your particular knowledge, would you work with the staff of this committee for the purposes of composing a memorandum on which you would specify the case for securing this information?

Not only what we want, but the reasons why this information is so vital and necessary for sensible judgments in our economy, so that businessmen could have it, so that economists throughout the economy could have it, so that the Members of Congress could have it, and so forth.

Mr. WEIDENBAUM. I would be pleased to, Senator.

Chairman PROXMIRE. That would be wonderful. That would be very helpful. Now, I would like to ask you to give me your interpretation and your estimates and analysis of the testimony which we had yesterday from an extraordinarily able man, Senator John Stennis of Mississippi, who as you know is chairman of the Preparedness Subcommittee and very well informed, and twice he has hit right on the nose the spending which the Federal Government has had, and has disagreed sharply with the administration; but he has been right and they have been wrong.

Yesterday, he indicated that the assumptions on which the administration had posited its budget failed to take into account an escalation which he felt was very likely, up to 500,000 men by the end of this calendar year, which would be the middle of the coming fiscal year.

He thinks they are short, apparently, about 50,000 men. He did not say that, but he said if they are short 50,000 men, the cost of these additional 50,000 men would be, in his judgment, \$4 to \$6 billion for all the factors that are involved.

Now, Robert Anthony, the Assistant Secretary of Defense, testifying the day before, said that in his judgment the cost of one soldier in Vietnam is \$30,000. Of course, Senator Stennis was basing his estimate on a different assumption. He was including the cost of training, the cost of transporting, as well as the cost of maintaining, supporting, and supplying men in Vietnam.

Would you feel that the assumption that 50,000 additional troops in Vietnam would probably require \$4 to \$6 billion—do you think that may be a fairly reasonable estimate?

Mr. WEIDENBAUM. If you can just wait a moment—

Chairman PROXMIRE. You go ahead, take your time.

Mr. WEIDENBAUM. With my hand calculator, 50,000 men at \$4 billion?

Chairman PROXMIRE. Four to six. Yes, I think the mid-figure would be five, give or take a billion.

Mr. WEIDENBAUM. I claim no expertise of precision of per man costs of the Vietnam war, but under the assumption—and this has been stated by a number of observers, that on the average there is one man in logistical support for each man in Vietnam, which would mean for a 50,000 buildup directly in Vietnam, we are talking about a total increase in the Armed Forces of 100,000 men—it strikes me that the Senator may be toward the high end of the range.

Mr. Anothony may be at the very low end of the range, but I think the average would be closer to the Senator's estimate. I have a great respect for someone whose forecasts have been as accurate as Mr. Stennis.

Chairman PROXMIRE. You indicate that one of the big troubles, and we of course agree with you wholeheartedly, has been the uncertainty

as to the nature and extent of our commitment. Now, do you feel that this was a factor in the failure of the administration so dismally, starkly, to estimate the Vietnam cost last year?

You will remember in January, as you say, they estimated \$10 billion. It turned out to be, as you say, about twice that. In a sense, they were off 100 percent.

Do you feel this was a major factor here?

I don't recall that there was any escalation much beyond the assumptions that most of us made, and of course, as I say, Senator Stennis and one or two others were quite accurate.

Mr. WEIDENBAUM. I think blaming the entire \$10 billion underestimate on uncertainty is too charitable an explanation. I think, though, we need to realize that making the assumption that the war would be over, not a prediction, but an assumption that the war would be over by the end of the budget year, was the standard budgeting procedure for the Korean war, so there was plenty of precedence for making that assumption.

Chairman PROXMIRE. But then in the Korean war, as I recall, we appreciated a great deal more than was used, didn't we?

Mr. WEIDENBAUM. That is right, and this is one of the concerns that Secretary McNamara has expressed many times over, the desire to avoid making such unnecessarily premature funding of defense activities that when the war is over, we as a nation have an excess amount of materials in inventory and of funds available to the Pentagon.

However, granted that you don't want to be overly generous in the funds you make available to the Department of Defense for purposes of awarding contracts and committing the funds, and making that assumption, and that is an operational assumption that I personally respect the Secretary making—the point, however, is that assume, for fiscal policy purposes, as it was apparent, that the \$10 billion figure was an underestimate, that the war would not likely be over in June 1967, that perhaps it was still too early for preparing a supplemental appropriation—and this is the point that the hearings I read have been dwelling on—but the time wasn't too early to take the necessary fiscal policy action.

The statement has been made many times that during—

Chairman PROXMIRE. And if we had had this monthly series of reports, this monthly series that you have suggested, we would have been prepared to make a judgment as to whether or not taxes should have been increased, other spending reduced, and so forth.

Mr. WEIDENBAUM. I think so; and specifically the statement was made repeatedly that we did not know, the administration did not know, whether the supplemental, additional funds to be spent in fiscal 1967 for the military would be \$5 or \$10 billion, or somewhere within that range in excess of the initial estimate.

Grant that, that there wasn't exact certainty, however, knowledge was there that \$10 billion was too low, that the figure was going to be maybe \$15, maybe \$17, maybe \$20 billion.

Well, for fiscal policy purposes I don't think it was essential to wait until we could come up with the fine 19-point-something. As soon as the administration publicly admitted that there was an underesti-

mate in defense spending, that expenditures were going to be higher than originally budgeted, that was the time to make fiscal policy adjustments.

Chairman PROXMIRE. I believe, as I recall, that Secretary McNamara indicated, when, in July or August, that there would be a supplemental, that they had underestimated; but he did not indicate how much.

You see the difficulty for Congress is that we have to work with the figures that we have available, and there is a tendency for those of us on Appropriations and Finance Committees to think in terms of the most recent hard estimates, where they give specific figures and facts.

Under these circumstances, it was felt it would be hard, because we were relying on a budget estimate so inaccurate that it was very difficult for us to either persuade the Members of Congress to go for a tax increase or to make a real effort to hold down spending.

Mr. WEIDENBAUM. I think, though, that it was important to make the distinction between congressional action on military appropriations and congressional action on fiscal policy; that is, tax increases or slowdown in nondefense spending and even though Congress hadn't enacted, because they hadn't even received, the request for the supplemental, as soon as it was general knowledge that the impact of Vietnam had been underestimated, that the cost of Vietnam had been underestimated, hence that the basic assumptions underlying the January 1966, budget were no longer relevant, that was the time for a change in fiscal policy.

Chairman PROXMIRE. You specified that, and this was an interesting emphasis, because we had little of it on this committee in our consideration last January and February, when the various administrative agencies and others were before us in justifying the President's economic plans for the Government in the next fiscal year, that is the lack of general understanding of the speed with which the military buildup affects the economy.

Would you detail this a little bit? Would you explain what you mean and why this is misunderstood, and how we can achieve a better understanding?

Mr. WEIDENBAUM. During much of 1966, the focus of the Council of Economic Advisers was on the so-called National Income Accounts Budget, in particular, during the first half of 1966. This National Income Accounts Budget showed a surplus of about \$3 billion. This was taken by the administration as an indication of fiscal restraint. It was cited repeatedly.

Chairman PROXMIRE. In general, that is quite sound, isn't it?

Mr. WEIDENBAUM. I don't think so. Let me say this, that it certainly is sounder to take the NIA than the administrative budget in this respect.

Chairman PROXMIRE. Wait a minute. I am saying in general, I am not saying in 1966 it was sound. I am saying it usually is a guide. This is a better guide than some of the other guides we have had in the past.

But this does show, is this true or not—the total Government spending and Government revenues, including trust fund revenues and expenditures on an accrued basis, not a cash basis?

Mr. WEIDENBAUM. I have to say not quite.

Chairman PROXMIRE. All right.

Mr. WEIDENBAUM. For two reasons: first of all, it excludes all of the lending transactions of the Federal Government, which are very large and very important. These are included in the cash budget. They are not included in the National Income Accounts Budget.

I feel the second drawback to the National Income Accounts Budget is its accrual on the revenue side, and that is, it records the payment of corporate taxes when the liability accrues to the companies, not when the cash is received at a later point by the Treasury. However, it shifts gears on the expenditure side. It doesn't reflect the receipt of the Government payment by a Government contractor on an accrual basis, which would precede the actual cash flow, but it reflects this payment on a delivery basis, which is after the cash flow, because of the tremendous amount of progress payments.

So you have a measure which during the period of a military buildup shows receipts on a leading basis, so to speak. It records the receipts before they are in the Treasury, and it doesn't record the expenditures until some time after they have left the Treasury. Inevitably during this kind of period, this budget, which overestimates, so to speak, receipts and underestimates expenditures, will show a far more favorable situation than the underlying relationship between the budget and the economy. In my formal paper—

Chairman PROXMIRE. Let me just ask you, on this point—what is your answer? What should we be looking at? Is the cash budget a better basis?

Mr. WEIDENBAUM. For this purpose, I do think the cash budget is better.

Chairman PROXMIRE. For measuring the impact in a period of rapid war buildup, you would rely more on a cash budget?

Mr. WEIDENBAUM. Yes, sir.

Chairman PROXMIRE. What did the cash budget show in 1966?

Mr. WEIDENBAUM. I must say I don't have the figures with me.

Chairman PROXMIRE. Did they show a deficit?

Mr. WEIDENBAUM. While I am looking for the figures, may I point out that in my formal paper, I have made an adjustment of the National Income Accounts Budget to cover this contingency. In other words, I have adjusted the National Income Accounts Budget for the fact that deliveries lag behind expenditures. In other words, I adjust the expenditures on a National Income Account Budget so that they are consistent with the revenues.

In doing that, I don't show a surplus in 1966. I show a Federal deficit in 1966.

Chairman PROXMIRE. That is simply adjustment in the NIA budget you show a deficit.

Mr. WEIDENBAUM. Yes, that is in the NIA budget. I have now the comparisons between cash budget and National Income Accounts Budget. In the second half of 1965, the cash budget showed a much bigger deficit than the National Income Accounts Budget. In the first half of 1966, it showed a much smaller surplus than the National Income Budget. In the second half of 1966, it showed a much bigger deficit.

The results are consistently less favorable than the National Income Accounts Budget. I think this is one of the problems. But I am a little dismayed to see, as I note in the January 1967 Budget Message, this comparison between the administrative budget and the NIA budget. It is sort of, frankly, beating a dead horse.

I recall a Presidential budget message just a few years ago saying, in effect, "We are no longer going to emphasize the old-fashioned administrative budget. We are now going to emphasize the comprehensive cash budget, which is the best measure of Federal finance."

Somehow or other we have conveniently forgotten that, and now we measure, compare the NIA budget to the administrative budget. I think the more relevant comparison is to the cash budget.

Personally, I would opt for the cash budget because it is, first of all, more comprehensive. It includes things like the big lending programs we have that don't show up in the NIA budget and, secondly, it is more accurate. It presents a more accurate portrayal of the impact of a defense buildup or of a defense cutback on the economy.

Chairman PROXMIRE. Now, proceed to spell out the speed of the military buildup affecting the economy.

Mr. WEIDENBAUM. If I may, fiscal 1966, as I point out in my formal statement, was a period where Vietnam really took hold in terms of being important as a factor in the budget and in the American economy. That is the second half of calendar 1965, July, 1965, through December, 1965. This was the point where the Federal budget on the NIA basis was running a small deficit, \$1.4 billion.

However, this was the period of tremendous buildup in military orders, military obligations, in the second half of 1965, were running on the average of \$60 billion, which was a \$7 billion increase over just a year prior. Making the adjustment—

Chairman PROXMIRE. That was, or was not, reflected in the NIA budget?

Mr. WEIDENBAUM. It is not reflected in any of the budgets.

Chairman PROXMIRE. But this is the kind of thing that you say in your summary. It isn't reflected in the Government figure, but it is reflected in the action of the private contractors.

On this basis, they go out and hire people, they make commitments on machinery, they buy raw materials, they go through this kind of action which expands the economy.

Mr. WEIDENBAUM. Precisely. It is the private production on Government account that increases the GNP. If you can conceive of several steps, breaking up the GNP into simply private sector and public sector, during the period where the defense contractors are working on Government orders, this shows up in the private sector.

This is value added in terms of the production of aircraft, tanks, ships, and so forth.

Chairman PROXMIRE. Roughly, how did this work in 1966 in terms of the timing? You say late 1965?

Mr. WEIDENBAUM. Yes.

Chairman PROXMIRE. That was the time of the buildup. The Government would increase its orders in September, October, November of 1965, no reflection whatsoever in any current budget, but those orders were obviously immediately escalating the economy.

Mr. WEIDENBAUM. Precisely. And this is the key part. That the increase in the orders result directly in increase in private production, which shows up immediately in the GNP.

Chairman PROXMIRE. Those figures you say were available, but hard to dig out.

Mr. WEIDENBAUM. That is right.

Chairman PROXMIRE. And these are the figures that you are asking the Defense Department to make available on a regular monthly basis, and a comprehensive basis so they are all put together in one place.

Mr. WEIDENBAUM. That is right.

Chairman PROXMIRE. And on the basis of these figures, you will be able to see, anticipate, understand the effect that this is having on the economy, although it is not reflected in the budget figures?

Mr. WEIDENBAUM. Precisely, because a simple-minded view is to see little activity in the public sector, great activity in the private sector, and say, "Well, the public sector is acting in a very restrained fashion. All the inflationary pressures are in the private sector." But if you look just a little more deeply than that, what is the inflationary pressure in the private sector? It is precisely the production by Government contractors.

You then look at the next period, where the production is completed. The items are delivered to the Government. What shows is a big plus in the Government budget during this period, which is recorded in the accounts. But in the private sector, there is a big minus, as inventories are liquidated, and as the completed weapons are shipped to the military.

You add the minus in the private sector to the plus in the public sector, and you get zero increase in the GNP.

The increase in the GNP occurred in the previous period, during the private production. Hence, by looking only at the formal Government budget, we are missing the period where military demand increases the GNP, which is the production in the private sector, not the delivery to the public sector.

Chairman PROXMIRE. Will these figures put us in a position where we can appraise the degree of the impact on the economy?

Mr. WEIDENBAUM. Yes, sir.

Chairman PROXMIRE. This morning, we had three very excellent papers, and one of the papers by Professor Suits estimated two things:

No. 1 was a very modest multiplier, and he agreed it was conservative. He did not trace it all the way through, but a multiplier of about 1.85 percent for the expenditures, which would give us some idea about the effect of these Government defense contracts, that they might be expected to have on the economy.

And in addition to that, he estimates that, all other things being equal, and he agreed of course they wouldn't be, but all other things being equal so that we could understand the comparison, that with Vietnam out of the picture, instead of having approximately 4 percent unemployment last year, or less, or would have had about 7.7 percent unemployment, I think, in the last quarter of last year.

Would those figures about square with your own understanding, or what do you think of this kind of estimate (a) on the multiplier, and (b) on the effect on the economy?

Mr. WEIDENBAUM. I have a high regard for Professor Suits' econometrics work. I have no reason to question the accuracy of his figures. However, I question the relevance of the results.

Chairman PROXMIRE. He did not offer this as an indication that Vietnam was preventing unemployment. In fact, he takes a very sharply contrary view.

But just as a way of measuring, you know, to reduce to a comprehensible basis an understanding of what Vietnam means in terms of jobs, in terms of the effect on the economy, and so forth.

Mr. WEIDENBAUM. Oh, from that point of view I think that is a very good indicator of how much of the economy is directly or indirectly affected by the Vietnam spending. But I have rephrased it that way.

Chairman PROXMIRE. Yes.

Mr. WEIDENBAUM. It doesn't indicate the decline in the economy, if we weren't—

Chairman PROXMIRE. Yes, he said that. He was very, very specific about that, and he agreed, as did all the witnesses, that, of course, the economy is infinitely better off in all kinds of ways, if we can have negotiations and a cease-fire in Vietnam. There would be no problem in finding policies of tax reduction and progressive spending programs that would take up the slack.

We would be better off in every sense, but this was simply a way of measuring it. Now, how about the multiplier? Have you had any opportunity to study that?

Mr. WEIDENBAUM. No, I haven't. In fact, I have used Professor Suits' estimates in some of my own work. I have no reason to try to improve on them.

Chairman PROXMIRE. This brings us to the question, when we get this information, and we have some understanding of what it is doing, what do we do. What policies would be most appropriate for the Joint Economic Committee to recommend to the Congress in terms of taxes and spending?

I realize you have to put in all kinds of value judgments to come down precisely on any side, and I am just wondering from a technical standpoint if you can help us to suggest, in view of the rapidity with which this acts on the economy, this increased defense spending, what counteraction in terms of either spending or taxes or both, do you think would be most appropriate?

Mr. WEIDENBAUM. I think in terms of three general kinds of actions, but specifically the kind that can be implemented rapidly. In other words, in general, tax reduction, Government spending increases, and changes in monetary policy are the three basic ways of doing this.

However, my guess would be that the great majority of specific actions in these three categories would not be appropriate. They wouldn't take hold fast enough.

My guess would be that on the tax side, a simple, straight percentage across-the-board change in tax rates, plus or minus, would be, if any, the only really effective way of probably offsetting whatever change was noticeable in, say, the military budget.

On the expenditure side there would be essentially transfer payments, such as unemployment compensation, veterans' pensions, OASI programs.

Chairman PROXMIRE. These are pretty hard to reduce politically. They are easy to increase but they are hard to cut.

Mr. WEIDENBAUM. I think this is one of the reasons that economists have been emphasizing the tax side rather than the expenditure side, particularly if the alternative—I would assume it is relatively easy to increase expenditures as opposed to reducing taxes, but the relationship isn't quite reversible. Somehow or other, it seems to be easier to change taxes than expenditures on the companion side.

Chairman PROXMIRE. Expansion is much easier than contraction. That is why we rely on monetary policy to restrain inflation and reduce taxes and increase spending to stimulate the economy.

Mr. WEIDENBAUM. Well, monetary policy doesn't come out with flying colors during the past year. It was rather late in—

Chairman PROXMIRE. I am not so sure. It came out almost with—it slammed on the brakes with a resounding crash and roar; in that sense, it wasn't flying colors, but it sure as the dickens slowed down the economy, in spite of the fact that the Vietnam war has been escalating, and we have been sending more and more troops overseas, those highest interest rates in 40 years that we had during much of 1966 did result in an economy in which all the indicators were either level—or practically all of them—either level or pointing down by the fourth quarter of last year. It is hard to find any that were going up.

Mr. WEIDENBAUM. I think it is one of the problems. You can take a look at, say, the money supply. It really started turning down, I guess it was in April after so much of the direct Vietnam inflation.

Chairman PROXMIRE. That is right, but the consequences weren't immediate, in comparison with the length of time it takes to get through the Ways and Means Committee of the House, the Finance Committee of the Senate, and then put it into effect, and then get the result with tax changes, the monetary policy did work, although it took some time to do it, and it perhaps overreacted. I think it did.

Mr. WEIDENBAUM. I think there is a distinction there. Incidentally, the statement this morning that you can get a tax cut through the Congress faster than a declaration of war struck me—

Chairman PROXMIRE. That was retracted by the author of it, Mrs. Griffiths.

Mr. WEIDENBAUM. The reason it struck me as amusing, and I don't mean the current controversy on the tax credit, is that we haven't had a declaration of war since 1941. But the point I really would like to make is that even though monetary policy might take effect, monetary policy actions—

Chairman PROXMIRE. Let me just go back to that. We haven't had a President who asked us for a declaration of war. I think if he did, it would go through awfully fast. We have had Presidents who have asked for a tax reduction. It took President Kennedy about 2 years to get the 1964 reduction.

Mr. WEIDENBAUM. Yes, sir.

Chairman PROXMIRE. And I think it is going to take us a long time to get even an across-the-board reduction. The investment credit is relatively very, very simple, as you know, and easy to act on compared to these other things.

Mr. WEIDENBAUM. In a way, though, I think the comparison is misleading. Certainly, the Federal Reserve Board can make decisions

fairly promptly, but in terms of the timelag between their making their decisions and the impact on private spending, income and employment, we might find that those timelags are greater than the timelag between the time that Congress reduces taxes and the increase in aftertax income on the part of the taxpayers, and the increase in their consumption.

So, even though Congress may take longer to enact a tax change, than the Federal Reserve may to enact a monetary policy change, that shorter lag, that looks favorable to monetary policy may be more than offset by the longer time it takes for monetary policy directly to affect employment and income than the tax change.

Chairman PROXMIRE. Again, I am not so sure. I think it is very possible that the monetary policy actions taken by the Fed beginning in April, began to slow down the economy earlier than the fall. The indicators suggest that the economy leveled off in the fall, and that was quite a slowdown, because it had been moving up at a rapid rate. But there was a period before that when, absent the policy of the Fed, if they had continued to expand the money supply 6 or 7, or 8 percent, we might very well have taken off with an even greater increase in business spending.

Mr. WEIDENBAUM. Yes; but the initial Federal Reserve actions for a tight monetary policy occurred in December 1965.

Chairman PROXMIRE. Well, the money supply did not turn around until April. They did increase the discount rate on December 2. At any rate, it is my fault. We got away a little bit from your principal recommendations, which I think are extraordinarily helpful.

I would like to suggest, Professor Weidenbaum, that we try to see what we can work out informally with the Defense Department, and then we proceed just as hard and as fast as we can to get precisely what you have recommended today, or at least as much of it as we possibly can get, get it on a timely basis, on a monthly basis.

You feel that it ought to be separate. It ought to be called something like defense indicators, or something like that, separate from the economic tables, because these economic tables are comprehensive now. They are 37 pages. This is a publication, as you know, of this committee.

Mr. WEIDENBAUM. Yes, sir.

In fact, I think in terms of another spinoff, if you will. I noticed that after the economic indicators were introduced, the Department of Health, Education, and Welfare has come up with something called HEW indicators.

Chairman PROXMIRE. Yes. We even have State indicators.

Wisconsin has her own indicators of the level of the economy in our State, and a number of other States have developed this.

Mr. WEIDENBAUM. And in this case, we would be doing another specialized report, where the economic indicators would still be the most general set of pertinent statistical materials, but whether it is Health, Education, and Welfare, or Defense, or other key elements to the economy, we would have another specialized set of tables.

Chairman PROXMIRE. There is this one consideration, and that is the Health, Education, and so forth, are somewhat different. The sole purpose of our requesting, at least of this committee requesting, it is for the purpose of getting greater enlightenment on the economic impact

of what this rapidly changing and dynamic sector of our Government, what the effect is that this has on the economy.

Mr. WEIDENBAUM. Yes.

Chairman PROXMIRE. And it is directed at economic information and for this reason I think we ought to give at least some consideration to its incorporation into economic indicators. This is a regular monthly publication, and it might exert a pretty good discipline, if this could be worked into the regular tables we have here, unless there is some timing reason why it should come out at a different time of the month.

Mr. WEIDENBAUM. That is certainly a thought. Anything that would help speed up—for example, I have here, unless my mail is particularly poor, what is the latest available issue of Military Prime Contract Awards, which is the most detailed data on Defense orders. My issue is July–September 1966. This is late April 1967.

Chairman PROXMIRE. When did you get this?

Mr. WEIDENBAUM. Unfortunately, it is not dated. I don't have a date on it, but it was issued covering the periods through September 1966.

Chairman PROXMIRE. Also, I think the advantage of having it published here is that it would call attention to the economic implications of this information, and the various people around the country, including the editors and commentators and economists and executives, and Members of Congress who get this, would have it immediately called to their attention, this information which would be of, I think, more significance, because it is related to the other basic information that is right here.

Mr. WEIDENBAUM. It dawns on me, Senator, I should have immediately jumped on the bandwagon and endorsed a recommendation for including the material in the economic indicators, because in 1957, in testimony before this committee, I recommended that data on budget obligations be included as one of the lead indicators in the standard compendia of Federal statistics such as economic indicators, and I forgot my own recommendation.

Chairman PROXMIRE. Very good.

Well, I want to thank you. The staff does want me to ask you one more question. As a professional economist, we asked the gentlemen this morning, how do you react to the administration's lack of preparedness for deescalation? If hostilities ceased tonight, the administration has no contingency plans to put into effect tomorrow morning.

Of course, you have stressed the importance of prompt action in the other way. How about it?

Mr. WEIDENBAUM. First of all, I make a distinction between the economic factors and the political-military factors. I have, of course, no competence in the latter two areas. And there may be political and military reasons that I am not aware of.

Chairman PROXMIRE. No, I don't think so. I think that the President acted to appoint the Ackley committee in his economic message. He said he was going to appoint Chairman Ackley, but Chairman Ackley won't be prepared to report until September. Meanwhile, although our staff has checked with a number of Government agencies,

they say they don't have any particular plans to put into effect if there should be negotiations, but when the Ackley committee reports, it will recommend what we should do.

At that point we will have this information. Now we don't have it. It seemed to us that without waiting for the Ackley committee, that it would be possible for them to arrange almost overnight certain proposals that might be sensible for us to prepare to put into effect if we should get a cease-fire.

Mr. WEIDENBAUM. I must say, one, I am concerned about the lack of public availability of any contingency planning.

Secondly, I personally fail to see the reason for the tremendous amount of delay. As you know, I was the first executive secretary of the Ackley committee, the President's Committee on the Economic Impact of Defense and Disarmament, and of course I am aware of the difficulties involved in getting agreement among a wide variety of Federal agencies. But given the six points in the Presidential Economic Report on Post-Vietnam Planning, where the President very clearly, to my pleasant surprise outlines the six key kinds of actions which can be taken to offset the deflationary impact of peace in Vietnam, I think that the implementation of those six points is something that could be done quite quickly.

In my formal paper I presented the key alternative ways of achieving each of those six points, and it strikes me essentially that these are not problems that require a great deal of background research. Certainly, the tremendous amount of work that has been done on the economic impact of disarmament, the 1963, 1964—

Chairman PROXMIRE. The Arms Control Agency testified on that, Mr. Alexander, who is head of that particular part of it. He was before us yesterday.

Mr. WEIDENBAUM. Good, because I think the agency has contributed a great deal to our knowledge of the economic impacts of defense cut-backs, and we can draw on that material already, without awaiting the tedious review of policy details.

In my formal paper I have a table on page 67 where I array what I think are the major alternative specific kinds of actions that the administration can consider in each of the President's six categories.

I just do not understand why this is a matter for 6 months or more of study, because the key aspect of a post-Vietnam adjustment program is the timely, quick, prompt, implementation of actions.

Chairman PROXMIRE. Two of the points that he recommends might take some time and effort. He suggests, No. 4, to determine priorities for the longer range expansion of programs to meet the needs of the American people, both for new and existing programs.

Now conceivably that would take some consultation, not only with the Budget Bureau, but some of the other people who are involved to find out what their priorities were, and what would be feasible to put into effect promptly, and so forth.

Then the other one is to study and evaluate the future direction of Federal financial support to our States and local governments. This is something that might require some consultation with Governors and with other people around the country, as well as the resolution of the problem involved putting the Heller-Peckman proposal into effect, for instance.

Mr. WEIDENBAUM. I think it would be helpful to make a distinction between a one-two punch, so to speak. There is the initial set of actions and there is a followon set of actions.

I think the initial set of actions, the kind of thing that maintains the aggregate demand of the conomy immediately, something that takes hold as soon as the defense contracts are cancelled, as soon as defense workers are laid off, as soon as servicemen are returned as veterans—that initial action is essential to head off any postwar recession.

Chairman PROXMIRE. At the same time, I think that some of this takes some calculation. For instance, the announced program by the Defense Department to phase out slowly our procurement, replenish inventories and build them up over a period of time.

The statistics revealed by the Veterans' Administration, that whereas less than 30 percent of the veterans of World War II went to college under the GI bill, 50 percent of the Korean war veterans did, and 84 percent of the Vietnamese veterans are going on with their education, taking advantage of the GI bill.

This suggests that the manpower adjustment may be a lot easier than we have had before, and that the adjustment can be relatively gradual and relatively gentle.

Mr. WEIDENBAUM. I am glad to hear that. I wasn't aware of that. That would take care of obviously the majority of one part of the problem—that is the returning veterans.

It wouldn't deal with the deflationary impact on the private sector, the defense companies, their employees, the geographic areas where they cluster.

Chairman PROXMIRE. Of course, it also indicates we have to make some plans for getting the available instructional personnel, and so forth, for these veterans coming back. This is going to have an impact on our higher educational institutions, with a flood of veterans, unless you are going to jam them into a great big lecture hall. You are just going to have to have more teachers available.

Mr. WEIDENBAUM. There are many private universities that would welcome these veterans eagerly.

Chairman PROXMIRE. The ones I know, my kids can't get into.

Mr. WEIDENBAUM. I will be glad to send them applications to Washington University.

Chairman PROXMIRE. They will probably end up there. They will be delighted to be there.

Mr. WEIDENBAUM. Fine.

On the question of initial adjustment policies, here we have I think a package of monetary policy which of course is under the jurisdiction essentially of the Federal Reserve Board, but I think a simple, straightforward, across-the-board tax reduction, sort of the reverse of the beautifully simple recommendation in the latest budget message for a tax increase, just change the algebraic sign, that would be an essential part of the first line.

The second of course, would be unemployment compensation. Usually, we wait until a recession and then we liberalize unemployment compensation. It strikes me that this is the kind of thing that can be done before you see the whites of their eyes, so to speak.

Then, of course, we have the second-level category of adjustment actions. Those avowedly require more time. The long-term expansion in Government programs, decisions on whether we should have a tax credit or shared revenues or a Heller-Pechman plan.

However, to the extent that the initial actions, the monetary policy, the tax reductions, the unemployment compensation maintain the overall viability of the economy, maintain the growth of the economy, high levels of employment, income and purchasing power, to that extent we make easier the secondary job of essentially the structural shifts required to adjust to peace in Vietnam, the State aid, the long-term expansions in Government programs.

But while we are deliberately, slowly wrestling with these other areas that take more time, I think the thing that needs to be done immediately is the preparation of the first line of offense, so to speak, and I can't see why that is such a drawn out process.

Chairman PROXMIRE. Thank you very, very much, Dr. Weidenbaum. You have been an excellent witness and I will make sure that the absent members discover what they have missed. They will be interested in the record you have given us, and these constructive suggestions are most helpful. I am sure that we will use them in our report here, and also do our level best to try to get exactly the kind of information you propose, because all of us in Congress are troubled, as I am sure the administration is, at errors that we made economically in 1966.

The New York Times properly called it "the year of the economic goof," because of the fact that we were unprepared for this escalation in military cost, and as a result we had these high interest rates, unacceptable inflation, serious problems that we could have avoided with wiser policies, if we had had the information and acted on it.

Your contribution has been just excellent, and I very much appreciate it. Your report will be included in the record of today's proceedings.

The committee will be in session tomorrow morning in room 4200, at 10 o'clock, to hear Professor Leontief of the Department of Economics at Harvard University; Carl Madden, chief economist of the chamber of commerce; and Nathaniel Goldfinger, director of research of the AFL-CIO.

Thank you very much.

(Whereupon, at 3:05 p.m., the committee adjourned until Thursday, April 27, 1967, at 10 a.m.)

(The report referred to follows:)

IMPACT OF VIETNAM WAR ON AMERICAN ECONOMY

[Background paper prepared by Murray L. Weidenbaum, for panel report.
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PREFACE

This study of the domestic economic impacts of the Vietnam war was prepared in the Spring of 1967. Of necessity, it is an initial exploratory effort limited both by time constraints and the paucity of available data. It can hardly substitute for, but perhaps it will hold the line until the completion of a more leisurely and thorough analysis which the importance of these events surely deserves.

Personally, I have found this a very difficult report to write because several of the key participants in the events analyzed are former colleagues and friends. However, my purpose has been neither to defend their acts nor to attack them, but to illuminate the economic aspects of an important area of government policy. Certainly, given the difficulties of the environment in which they operated, I have encountered neither heroes nor villains of the piece.

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I. INTRODUCTION¹

This study traces the expansion of the U.S. defense effort resulting from the changing American commitment in South Vietnam, analyzes the impact on the

¹ The author wishes to express his appreciation to his research assistant, Mr. Stephen F. Seninger.

U.S. economy, and examines the resultant questions of domestic economic policy.

Several *key points* emerge from this study: (1) *persisting uncertainty as to the nature and extent of the United States commitment*, (2) *a lack of general understanding of the speed with which a military buildup affects the economy*, (3) *confusion in interpretation and delay in the release of budget information in 1966*, and (4) *resultant basic problems in national economic policy*. The final section of this study deals with the process of economic adjustment to peace in Vietnam.

A. *Some historical perspective*

Until comparatively recently, expenditures for national security were a minor factor in American economic activity. In the half century prior to 1930, such outlays normally equaled less than one percent of the Gross National Product (GNP), except for the World War I period. From 1931 to 1939, military outlays averaged 1.3 percent of GNP. Since World War II, however, the Cold War and the Korean and Vietnam conflicts have raised security programs to a relatively high level even in the absence of hostilities. Immediately prior to the Vietnam buildup, purchases by the Department of Defense were about 8 percent of the total output of the Nation. The proportion was of course higher during World War II (peak of 48 percent) and the Korean War (peak of 12 percent).

The most recent levels of military demand reflect an extended period of Cold War, interspersed by incidents leading to limited conflicts, such as Korea and Vietnam, and temporary thaws and defense cutbacks, such as in 1957-58 and in 1963-64. An abrupt change in the nature of the external environment—a sudden intensification of war or a cold war thaw—and in this country's reaction to it, might well cause another major shift from the present proportion of resources devoted to security programs. Unlike many other categories of demand for goods and services, the level and composition of national security expenditures are relatively independent of influences in the private economy. Yet, these military demands heavily influenced the private economy.

The impact of defense on the economy depends not only on the level and rate of change of spending. The availability of resources and the state of peoples' expectations affect the timing and extent of the impact on prices, production, and economic growth. Heavy reliance on deficit financing during World War II, in contrast to the emphasis on tax financing during the Korean War, produced different results on consumer income and spending both during and after the war.

Even before the Vietnam buildup, military spending had been dominating the Federal Budget. Such spending accounts for over 85 percent of all Federal Government purchases of goods and services. In real terms (when the dollar figures are adjusted to eliminate changes resulting from inflation) virtually all of the increase in direct Federal purchases of goods and services during the past two decades has been accounted for by defense programs. The aggregate of all other purchases by the Federal Government is at about the same real level as in 1940. The large increases in Federal spending for civilian purposes have been transfer payments and grants, which do not show up in the GNP as Federal purchases of goods and services. Hence, the rise in the Federal share of GNP from 6.2 percent in 1940 to 10.3 percent in 1964 was accounted for almost entirely by military and related security expenditures. On this basis, it can be seen that these security-related expenditures have been the primary factor in the expansion of the Federal Government as a purchaser and consumer of goods and services.³

B. *The U.S. commitment in Vietnam*

An evaluation of the impact of the Vietnam war on the U.S. economy requires first a review of recent developments in South Vietnam itself and of the changing nature of the U.S. involvement. The nature and extent of the American commitment in South Vietnam was continually unfolding during the period 1963-66. This, of course, created fundamental difficulties both in forecasting U.S. military expenditures and in analyzing their impact on the American economy.

It is the essence of present-day limited war for one side to be uncertain of the future actions of the other. However, in the hitherto conventional conflicts such as the role of the United States after Pearl Harbor, there was little uncertainty as to the extent of our own participation in World War II—the maximum effort

³ For a more detailed analysis, see M. L. Weidenbaum, "Defense Expenditures and the Domestic Economy," in Stephen Enke, editor, *Defense Management*, Englewood Cliffs, Prentice-Hall, Inc., 1967, pp. 317-336.

which could be supported by the economy. Vietnam, in contrast, and to some extent Korea, are examples of conflicts in which our uncertainties have included both our own as well as enemy actions.

1. *The Diem Coup in 1963.*—From 1954 through early 1963, the U.S. role in South Vietnam was limited to providing training and military advisory activities. Fewer than 1,000 members of the U.S. armed forces were stationed in South Vietnam during the period 1954–1960. This number rose slightly in 1961, to 1,364. During 1962, an expansion occurred to almost 10,000³ (see Table 1). In early 1963, the situation seemed relatively stable. In February, Secretary McNamara stated, "The drive of the Vietcong supported by the North Vietnamese against the established government in South Vietnam has been blunted . . . There are a number of factors that are favorable, a number of indications that the South Vietnamese are stronger in relation to the Vietcong than they were a year ago."⁴

TABLE 1.—U.S. military personnel in South Vietnam

Date	Number
1954–60 (average)-----	650
Dec. 31, 1960-----	773
Dec. 31, 1961-----	1,364
Dec. 31, 1962-----	9,865
Dec. 31, 1963-----	16,575
June 30, 1964-----	21,000
Dec. 31, 1964-----	¹ 23,300
June 30, 1965-----	¹ 103,000
Dec. 31, 1965-----	184,314
June 30, 1966-----	¹ 322,000
Dec. 31, 1966 (estimated)-----	¹ 455,000

¹ Total of U.S. military personnel in southeast Asia.

Source: U.S. House of Representatives, Committee on Appropriations, *Department of Defense Appropriations for 1967*, Part 1, p. 378; *1968 Budget*, p. 77.

However, later in the year Buddhist agitations against Diem increased markedly. Combined with the continued deterioration of Diem's governmental support, these events culminated in his death and the overthrow of his government in November 1963. There followed a very substantial increase in Vietcong activity and a weakening of the fabric of the South Vietnam society. In commenting on this period, Secretary McNamara stated that, "the political control structure . . . has, in certain cases, practically disappeared following the November 1 coup . . ."⁵

Nevertheless, the position of the Administration remained, in the words of the Secretary of Defense, "This is a Vietnamese war, and in the final analysis it must be fought and won by the Vietnamese."⁶ Several weeks after the coup, the Secretary announced that, upon completion of certain training missions, "small numbers of the U.S. personnel will be able to return by the end of this year." About 1,000 U.S. soldiers were returned to the U.S. during that period.

2. *The Vietcong Initiative in 1964.*—In 1964, the Vietcong stepped up their rate of attack, especially against the rural population. During the year, they killed an estimated 436 hamlet chiefs and other government officials at all echelons and kidnapped an additional 1131.⁷ To put that in perspective on the basis of relative populations, we can multiply the figures by 12 and think of 18,800 mayors, governors, and legislators in the United States being murdered or kidnapped in the space of one year. Also, it was reported that the Vietcong were using weapons of higher calibre than previously noted and that these weapons were being supplied by the North Vietnamese. These included 75 milli-

³ These figures are taken from a tabulation provided by General Harold K. Johnson, Chief of Staff of the U.S. Army, and published in U.S. House of Representatives, Committee on Appropriations, *Department of Defense Appropriations for 1967*, Part 1, 1966, p. 378.

⁴ Remarks by Secretary McNamara before a press conference on February 28, 1963, and published in U.S. Senate, Committee on Armed Services, *Supplemental Defense Appropriations for Fiscal Year 1966*, 1966, pp. 64–65 (hereafter referred to as *Senate Armed Services Hearings*).

⁵ Testimony by Secretary McNamara before the Appropriations Committee of the House of Representatives on March 24, 1964, published in *Senate Armed Services Hearings*, p. 70.

⁶ Testimony by Secretary McNamara before the Armed Services Committee of the House of Representatives on January 27, 1964, published in *Senate Armed Services Hearings*, p. 67.

⁷ Department of State, *Aggression From the North, The Record of North Viet Nam's Campaign to Conquer South Viet Nam*, Washington, D.C., February 1965.

meter recoilless rifles and large stocks of machine guns and ammunition of Chinese manufacture.⁸

By the end of 1964, the number of U.S. troops in South Vietnam had risen to 23,300. Even so, the U.S. involvement was still only that of support. The military budget presented in January 1965 actually projected a small decline in total U.S. defense spending for the fiscal year ahead. However, the Tonkin Gulf Resolution approved by Congress in August 1964 authorized all necessary measures "to repel any armed attack against U.S. forces and . . . to prevent further aggression in Vietnam."

3. *The North Vietnamese Infiltration in 1965.*—A significant change in the nature of the conflict occurred in 1965—the intensification of infiltration of arms and personnel into South Vietnam. The increase in infiltration gave the Vietcong increased capability, enabling them both to operate in larger units and to increase the number and intensity of attacks.⁹

The resulting expansion in the U.S. role in Vietnam is explained by the following dialogue between a member of the House Appropriations Committee and Secretary McNamara in April 1965:

Question: "Is our stepped-up effort there, our direct intervention and air strikes, motivated to some extent by the feeling that time is of the essence?"

Answer: "Our increased effort is motivated by the fact that the North Vietnamese were greatly increasing their infiltration of men and equipment into South Vietnam. We recognized if they continued that they will just overwhelm the nation."¹⁰

In February 1965, the United States Air Force began bombing targets in North Vietnam. The decline in total uniformed personnel of the U.S. Army halted in March. In April, the U.S. buildup of troops in South Vietnam rapidly accelerated. In May, the Administration asked for and Congress quickly approved a \$700 million military supplemental appropriations bill for the fiscal year 1965.

The estimated ratio of 4 Vietnamese military forces to 1 Vietcong was considered highly unfavorable for successful South Vietnam prosecution of guerrilla warfare, particularly in view of the ratio of at least 10 to 1 found necessary for successful anti-guerrilla operations in Malaysia, the Philippines, and elsewhere. Accordingly, a major expansion of U.S. armed strength in South Vietnam was underway in 1965, reaching a total of 184,314 by the end of the year. This represented an expansion of sevenfold over the previous year.

During the monsoon season of 1965 the Vietcong attempted to cut South Vietnam in half and thus bring about a signal victory. The sharply-increased U.S. capability was instrumental in blunting this drive. This led the Secretary of Defense to state in November 1965, that ". . . we have stopped losing the war."¹¹

4. *The Reliance on U.S. Combat Forces in 1966.*—By early 1966, the U.S. forces were conducting the bulk of the offensive military actions against the Vietcong. This can be inferred from Secretary McNamara's analysis of the four major types of military operations against the Vietcong during that period.¹² A schematic presentation based on his Congressional testimony follows:

Type of military operation	Purpose	Primary responsibility
Search and destroy.....	Destroy known or suspected Communist forces and their base areas. Excludes seizing and holding territory permanently.	United States and other free world forces and strike elements of South Vietnamese Armed Forces
Clear and secure.....	Permanently eliminate Communist forces from specified areas. Includes conducting pacification measures.	South Vietnamese forces. ¹
Reserve reaction.....	Relieve Provincial capitals and district towns under Communist attack and reinforce friendly forces when needed.	Do. ¹
Defense of Government centers.	Protect Provincial capitals, district towns, and key Government installations.	Do.

¹ With assistance from U.S. forces and other free world forces.

⁸ *Ibid.*, pp. 14-20.

⁹ Cf. Interview with Secretary McNamara, *U.S. News and World Report*, April 12, 1965.

¹⁰ Testimony by Secretary McNamara before the Appropriations Committee of the House of Representatives, published in *Senate Armed Services Hearings*, p. 77.

¹¹ Statement by Secretary McNamara at a plane-side interview upon departure from Saigon, published in *Senate Armed Services Hearings*, p. 91.

¹² Testimony by Secretary McNamara, House of Representatives, Committee on Appropriations, *Department of Defense Appropriations for 1967*, Part 1, 1966, pp. 134-135.

During 1966, the regular Army, Navy, Marines and Air Forces of South Vietnam numbered about 320,000,¹³ and were primarily responsible for the more passive missions, such as pacification and defense. Total U.S. forces in South Vietnam exceeded 300,000 in 1966, the bulk of them assigned to the active "search and destroy" mission.

It should be noted that various paramilitary forces also are available to South Vietnam. According to recent estimates, these include approximately 150,000 in regional forces, 150,000 in popular forces, and 110,000 in national police, armed combat youth, and civilian irregular defense groups.¹⁴

Clearly, during 1966 the nature and extent of U.S. involvement in Vietnam were altered fundamentally. Subsequent chapters will trace through the consequences of these changes on the U.S. military budget and the economy.

5. *An Overview. It is clear that the U.S. role in Vietnam changed from support to combat when the South Vietnamese government and armed forces no longer could withstand the combined onslaught of the Vietcong and massive infiltration of North Vietnamese equipment and manpower.*

It is futile to speculate as to anyone's ability to have precisely forecast these developments prior to their occurrence. In any event, *the uncertain nature of future developments in Vietnam continually clouded the public and private analyses of their unfolding impact on the U.S. Budget and the American economy.*

A historical review—admittedly an armchair analysis—is undoubtedly easier now than any contemporaneous effort. Two types of statements by the Department of Defense increased the difficulty: (1) extremely firm statements on the limited nature of the U.S. role which did not turn out to be that limited and (2) optimistic statements which were technically accurate but which nevertheless ended to mislead regarding future prospects.

For example, on various occasions in 1963 and 1964 the policy was expressed that the war was to be fought not by U.S. troops but by Vietnamese, a policy position that later became inconsistent with the changed military and political situations. Indications of this can be found in the following excerpts from a series of quotations, which Secretary McNamara presented to Congressional committees early in 1966 in connection with press reports concerning "the reliability of my statements with respect to the outlook in South Vietnam."¹⁵

January 27, 1964. "This is a Vietnamese war, and in the final analysis it must be fought and won by the Vietnamese."¹⁶

May 6, 1964. "We can provide advice; we can provide logistical support; we can provide training assistance, but we cannot fight the war itself."¹⁷ And then, after U.S. troops were engaged in combat on a large scale:

August 9, 1965. "They [South Vietnamese forces] are bearing the brunt of the fighting; they will continue to bear the brunt of the fighting."¹⁸

The relatively optimistic appraisals of the outlook was retained from 1963 to 1965, as reflected in the statements of the Secretary of Defense (taken from the same report).

July 19, 1963. "The military operations in South Vietnam have been proceeding very satisfactorily and this is true no matter what method you apply to them. We are quite pleased with the results."¹⁹

November 21, 1963. ". . . we are equally encouraged by the prospects for progress in the war against the Vietcong."²⁰

December 21, 1963. "We reviewed in great detail the plans of the South Vietnamese and the plans of our own military advisers for operations during 1964. We have every reason to believe they will be successful."²¹

May 14, 1964. "The path to victory will be long and it will take courage and imagination for both the Vietnamese and for our forces who are assisting them to assure success, but I firmly believe that the persistent execution of the political-military plans which the Government of Vietnam has developed to carry out that war with our assistance will lead to success."²²

¹³ U.S. Senate, Committees on Armed Forces and Appropriations, *Supplemental Military Procurement and Construction Authorizations, Fiscal Year 1967*, January 1967, p. 17.

¹⁴ *Ibid.*

¹⁵ *Senate Armed Services Hearings*, p. 63.

¹⁶ *Ibid.*, p. 67.

¹⁷ *Ibid.*, p. 73.

¹⁸ *Ibid.*, p. 86.

¹⁹ *Ibid.*, p. 65.

²⁰ *Ibid.*, p. 66.

²¹ *Ibid.*, p. 67.

²² *Ibid.*, p. 73.

November 10, 1964. "So I think that today, as compared to a month or two ago, we can look ahead with greater confidence."²³

May 9, 1965. "I think in the last eight weeks there has been an improvement." In response to the question, then you, yourself, are more optimistic? "Yes, I am. . . ."²⁴

However, by 1966, a new note of caution had entered into official statements. In February, the Secretary of Defense testified to the House Appropriations Committee that "we must assume that the number of North Vietnamese Regular Army troops in South Vietnam will continue to increase substantially in the months ahead . . ."²⁵

In January 1967, he stated at a joint hearing of the Senate Appropriation and Armed Services Committees, "I do not know of any war of any substantial size that anyone has ever been able to predict the end of it accurately, and we cannot do it here."²⁶

To repeat, the purpose of reviewing these statements is to demonstrate and underscore the difficulties in analyzing the impacts of these developments on the American economy at the time they were occurring.

II. HOW A MILITARY BUILDUP AFFECTS THE ECONOMY OVER TIME

Many of the difficulties that have been encountered in analyzing the impact on the American economy of the Vietnam military buildup step from long-term deficiencies in our theoretical knowledge or in our statistical information. This chapter indicates the nature of these deficiencies and briefly analyzes an earlier similar situation—the Korean mobilization program.

A. Leads and lags in Government spending impact

While each of the numerous steps of the Federal Government spending process need not be examined, it seems useful to highlight the ones that are most relevant to the purposes of the present study in order to detect the problems involved in measuring the economic impact of a military buildup.

As a starting point, we may take the Presidential budget which is transmitted to the Congress each January and covers the 12-month period beginning the following July 1. The Presidential recommendations are subjected to many months of detailed Congressional scrutiny and to numerous revisions before the funds are appropriated. Following quarterly apportionment of the funds by the Bureau of the Budget, the various Federal agencies commit the funds appropriated to them for their various authorized activities. Thus the funds are "obligated". For many government programs, disbursements follow rather quickly. Pension payments to veterans, interest payment to holders of the national debt, and wage and salary payments to government employees are made simultaneously with or very soon after funds are obligated.

However, obligations for major items of equipment purchased from the private sector are in the form of orders awarded or contracts placed; such transactions are not soon followed by equivalent amounts of expenditure. Particularly in the case of military weapon systems, a considerable amount of time is necessary for the design, production, and delivery of the items ordered. On the larger items, so-called "progress payments" are made to provide working capital but these are less than the cost of the resources currently being utilized by the defense contractors (about 70 percent). Also, these partial payments lag behind the actual disbursements by government contractors to their employees, suppliers, and subcontractors. The delays involved are hardly trivial. During the Korean War, it was estimated that the lag between ordering and delivering typical military items varied from six months for uniforms to fifteen months for tanks to over two years for combat aircraft. The leadtime for procurement of aircraft for Vietnam has been estimated by the Department of Defense at 18 months. The estimate for ammunition is six months.²⁷

²³ *Ibid.*, p. 75.

²⁴ *Ibid.*, p. 80.

²⁵ Cf. Committee on Appropriations, House of Representatives, *Department of Defense Appropriations for 1967*, 1966, p. 137.

²⁶ U.S. Senate, Committee on Armed Services and Appropriations, *Supplemental Military Procurement and Construction Authorizations, Fiscal Year 1967*, January 1967, p. 46.

²⁷ M. L. Weldenbaum, "The Economic Impact of the Government Spending Process," *Business Review*, The University of Houston, Spring, 1961, p. 11; U.S. Senate Committees on Armed Services and Appropriations, *Supplemental Military Procurement and Construction Authorizations, Fiscal Year 1967*, January 1967, p. 163.

In the case of military procurement programs, it is clear that the placement of orders with defense contractors and their commencement or expansion of production generate demands for resources, which are evidenced by the hiring of manpower and the acquisition and utilization of raw and semi-processed material. The key problem here, however, is that all such activity shows up in the private sector and not in the public sector.

The progress payments, of course, are recorded in the administrative and cash budgets at the time they are made. However, the newer and supposedly more sophisticated measure of Government finance—the so-called national income budget—takes account, not of these progress payments, but only of the actual delivery of the completed weapons. Because this point is so basic to understanding developments in the American economy during the last few years, some elaboration seems desirable.

Table 2 shows the impact of a hypothetical government expenditure program involving the purchase of \$50 million worth of goods produced in the private sector of the economy. For purposes of simplicity, the Gross National Product is divided among Government Purchases, Business Inventory Accumulation, and All other.²⁸

TABLE 2.—*Illustrative impact of the major stages of the Government spending process (\$50,000,000 procurement program)*

[In millions of dollars]

Stage	Government purchases	Business inventory accumulation	All other	GNP
1. Appropriation.....				
2. Contract placement.....				
3. Production.....		+50		+50
4. Delivery.....	+50	-50		

NOTE.—Only direct effects are shown.

Sources: Adapted from M. L. Weidenbaum, "The Timing of the Economic Impact of Government Spending," *National Tax Journal*, Mar. 1959, p. 82.

The process begins with a Congressional appropriation of \$50 million. No direct effect occurs on the level of economic activity. The Federal agency receiving the appropriation then places a contract with a private firm, which prepares to produce the order.

Actual production then follows. The total cost (including profit)—here estimated at \$50 million—initially shows up in business inventories. Progress payments do not change this because they are not entered into the GNP accounts. Such payments are excluded because they are not considered to represent the flow of resources but are merely financial transactions. When the work is completed and the items are delivered to the Government, the \$50 million transaction is then recorded as a government purchase—and a corresponding decline occurs in business inventories. As can be seen in Table 2, the delivery stage has no impact on GNP; the expansive effect of the government purchase occurred earlier, following the receipt of the government order and the commencement of production.

B. Problems of measurement and data availability

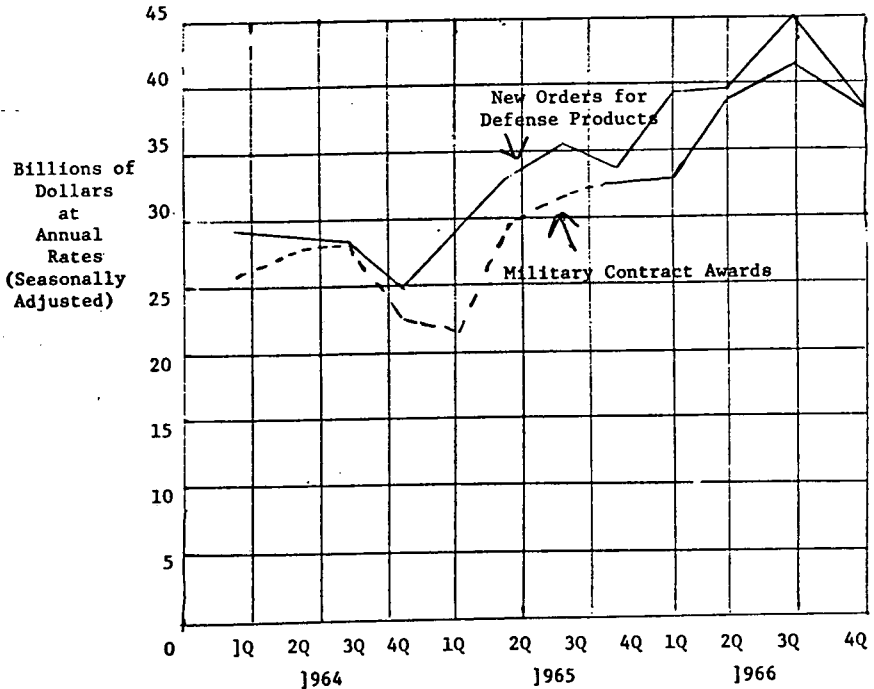
Interpretation of the spending figures for a military effort such as the Vietnam buildup is particularly difficult because the great bulk of the publicly available detail on actual and prospective defense spending is in terms of standard budget categories, which do not show how much in each category is being devoted to the limited war (Vietnam). Similar problems occurred in the contemporaneous interpretation of Korean War developments.

²⁸ For analysis of indirect effects and more complicated cases, see M. L. Weidenbaum, "The Timing of the Economic Impact of Government Spending," *National Tax Journal*, March 1959, pp. 79–85.

Hence, much of the difficulty in interpreting the economic implications of the Vietnam buildup are not really unique but stem from long-term deficiencies in statistical reports by the various Federal agencies.

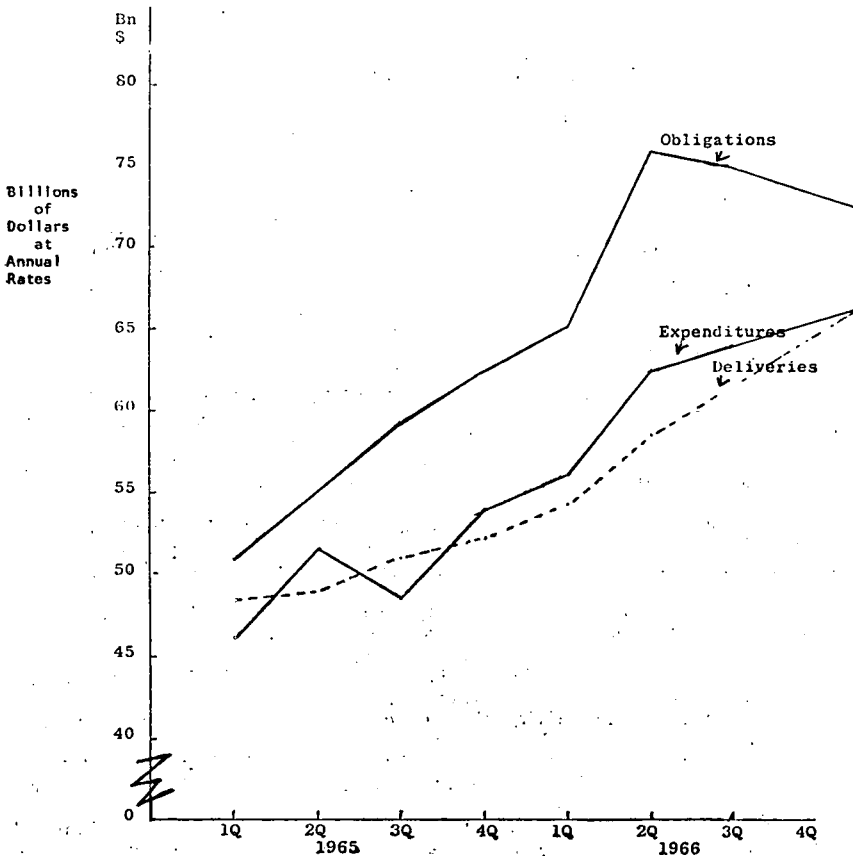
For example, the Department of Defense data on the amount of defense contracts awarded to American business firms often do not closely correspond to the widely circulated Department of Commerce data on new orders received by American business firms for defense products during the same period (see Figure 1). Much of the explanation lies in the fact that the Commerce Department does not have precise data on the subject but must make do with rough approximations. As a result, the Commerce data contain, for example, the total contracts received by aircraft companies, including airline orders for commercial jet transports.

Figure 1: Military Contract Awards to American Business Firms and New Orders for Defense Products



Source: U.S. Departments of Commerce and Defense

Figure 2: DEFENSE OBLIGATIONS, EXPENDITURES AND DELIVERIES^a



Source^a: Departments of Commerce and Defense

a/ Seasonally Adjusted

Other difficulties arise, of course, from a factor emphasized earlier—the different rates of military resource utilization that are obtained by using lead indicators (obligations) or more coincident indicators (expenditures) or lagging indicators (deliveries or purchase). Figure 2 shows the different time patterns yielded by these three series.

The statistical appendix to this paper brings together various measures of U.S. military spending to provide the reader with additional insights into the impacts on the American economy. Unfortunately, no standard pattern emerges either from the raw data or from the analysis of the rates of change. The need for fundamental improvements in the economic information system as it relates to the public sector and its impacts on the private sector becomes more urgent. Typical is the plea of Professor Arthur Burns, a former chairman of the Council of Economic Advisers, for “information on prospective federal revenues and expenditures, quarter by quarter, similar to the information that the government now compiles on business sales expectations and investment intentions.”²⁹

²⁹ Arthur F. Burns, *The Economic and Financial Outlook*, Manufacturers Hanover Trust Company, December 1966, p. 8; see also testimony of Paul W. McCracken in U.S. Congress, Joint Economic Committee, *The 1967 Economic Report of the President*, Part 1, February 1967 (hereafter referred to as *Hearings on 1967 Economic Report*).

C. Some prior experience: The Korean period

A previous military buildup—the Korean mobilization—posed problems of identifying the timing of the economic impact which provide a direct parallel to the current Vietnam experience.

Using conventional measures, Federal fiscal policy during the period of the initial buildup, fiscal year 1951, seemed appropriately restraining. Federal expenditures rose a modest 11 percent and the overall budget showed a \$3.5 billion surplus. However, a different story emerges from an examination of the statistical data used to measure the earlier stages of the government spending process.

The amount of appropriations granted by the Congress in fiscal year 1951 was 68 percent above the 1950 total. The aggregate amount of contracts let and other obligations entered into by the Federal agencies in 1951 rose 92 percent above the level of the previous year.³⁰ The interplay during that period of the opposite ends of the Federal spending process was clearly brought out in the following comment on this period by the Joint Committee on the Economic Report:

"The ineffectiveness of the governmental cash surplus, normally a deflationary force, was, in large part, attributable to anticipatory forces on the inflationary side arising from the current or expected placement of orders for future deliveries."³¹

The Wholesale Price Index jumped from 100.2 in June 1950 to 103.2 in July. It reached 107.1 by September. The Consumer Price Index rose from 101.8 to 104.4 (1947-49=100) during this period. This was described as, with the exception of the decontrol period following the close of World War II, "the most rapid and the most widely pervasive inflationary movement" in recent American history.³²

The following year, fiscal 1952, was the period of the actual major increase in Federal defense expenditures; it was one of comparative stability in the American economy. An examination of the Korean mobilization program discloses several interesting points:

1. The acceleration in economic activity occurred at approximately the *same time* as the announcement and authorization of the program, and while the most rapid increase in defense orders was taking place.

2. The acceleration in economic activity *ceased* when the rise in appropriations and obligations (new contract awards) ended.

3. The rise in economic activity *virtually ceased* when the level of appropriations and obligations began declining.

4. The major rise in government expenditures occurred *after* the most rapid expansion in economic activity and continued until after the decline in appropriations and contract awards.

As it turned out, the direct price, wage, and material controls were imposed after much of the inflationary pressures were over. We may speculate as to whether prompter imposition of tighter monetary and fiscal policies—during the fiscal year 1951—would have avoided much of the inflationary pressures, as well as obviating the need for direct controls.

However, in the Korean case the initial inflationary pressures were partly attributable to the overstocking in the civilian sector in the fear of renewed wartime shortages. As defense spending rose, a substantial correction of civilian inventories took place.

It has been fashionable to compare the Vietnam buildup with the Korean experiences in the hope of discerning parallels that would provide a firmer basis for forecasting purposes. However, important differences need to be acknowledged, although they tend to balance each other out.

The first set of differences relates to the smaller relative scale of the present buildup. The recent expansion of the armed forces from 2,700,000 to 3,200,000 seems modest indeed when compared to the spurt from 1½ million in 1950 to over 3½ million in 1952. Also, the defense budget doubled during the first year of the Korean War, while, as noted, the increase during the past year was about 16 percent. All this reflects the fact that Vietnam marks the first that the

³⁰ M. L. Weidenbaum, "The Economic Impact of the Government Spending Process," *op. cit.*, pp. 35-36.

³¹ U.S. Congress, Joint Committee on the Economic Report, *National Defense and the Economic Outlook for the Fiscal Year 1953*, 1952, p. 49.

³² U.S. Congress, Joint Committee on the Economic Report, *Inflation Still a Danger*, 1951, pp. 12-13.

United States has entered a major war with a very large existing defense establishment.

The second set of differences relates to the fact that, unlike Korea or World War II, the present military buildup was superimposed on an economy which was rapidly approaching full employment. Using June 1950 and July 1965 as the respective beginning points, a comparison shows that unemployment was higher in the earlier period (5.4 percent versus 4.5 percent) and the operating rate of industry was lower (80 percent versus 90 percent).

Summarizing these two conflicting tendencies, it may be concluded that even though the current defense program utilizes a smaller fraction of the nation's resources, it represents to a considerable extent a displacement of civilian demand rather than a total addition to actual production of goods and services. Hence, in the absence of direct controls over materials, wages, and prices, it is not surprising that inflationary pressures should have accompanied the rapid shift of resources from civilian to military use.

The Korean experience showed that the strongest inflationary pressures occurred during the first year of the buildup, while the economy was initially adjusting to the new level of military demand. The actual peak in defense spending a few years later occurred shortly before the onset of recession. *If there is any lesson to be gained from the Korean experience, it is that the Nation particularly needs to understand the timing of the impact of the different stages of a defense buildup (and subsequent cutback). Otherwise the United States can find itself fighting yesterday's inflation with a tax increase that will compound tomorrow's recessionary problems.*

III. THE U.S. MILITARY BUILDUP FOR VIETNAM

A. *The expansion of U.S. military spending for Vietnam*

The relatively minor American involvement in Vietnam during the 1954-63 period was hardly visible in the U.S. military budget. However, applying the average annual cost per U.S. soldier (\$23,000) to the number of American troops in South Vietnam during that time yields a rough order of magnitude of the demand on U.S. resources.

On that basis, the American commitment was costing about \$15 million a year during 1954-60 and rose to somewhere around \$18 million in the fiscal year 1961. In contrast, total U.S. defense spending was \$43,227 million in fiscal 1961. By the crude estimating technique used here, U.S. defense spending in South Vietnam was around \$31 million in fiscal 1962, \$227 million in fiscal 1963, and \$381 million in fiscal 1964, still quite minor amounts compared to the military budget totals.

An official estimate is available for "special support of Vietnam operations" in fiscal 1965, \$103 million.³³ That figure seems low in view of the fact that U.S. troops in South Vietnam rose from 23,300 to 103,000 during that year. Presumably, a high proportion of the costs was financed from regular operations or by drawing down inventories of weapons and supplies previously purchased.

The significant impact of Vietnam on the Federal Budget and hence on the American economy began in the fiscal year 1966. The January 1966 Budget Document estimated that \$14.0 billion of the requested appropriations and \$4.4 billion of the estimated expenditures for the fiscal year then in progress—the year ending June 30, 1966—resulted from Vietnam. The actual amounts turned out somewhat higher, \$14.9 billion in appropriations and \$5.8 billion in expenditures. A review of the data in Table 1 confirms the fact that the fiscal year 1966 was the period of major expansion of American armed forces in Vietnam. Prior to July 1, 1965, U.S. armed strength stationed there had risen to 103,000. Between July 1965 and June 1966, there was an increase of over 200,000 American troops in Vietnam. To date, further increases have been somewhat in excess of 100,000.

As pointed out earlier, the basic detail in the defense budget is not broken down to show the Vietnam components of each item separately. Hence, it is necessary to infer the impact of this commitment from movements in the more

³³ *Budget of the United States Government for the Fiscal Year Ending June 30, 1968, 1967, p. 77 (hereafter referred to as 1968 Budget).*

aggregate figures.³⁴ Thus, the escalation of the U.S. commitment in Vietnam, can, to some extent, be translated into economic impact by looking at the changing overall pace of military demand.

The data on total U.S. defense expenditures on a fiscal year basis show that the Nation's military spending was declining from \$54.2 billion in fiscal 1964 to \$50.2 billion in fiscal 1965 and did not turn up until fiscal 1966. A more precise pattern emerges when the annual data are divided into 3-month periods. It shows that the decline in military spending ended by January 1, 1965, the middle of the fiscal year, and that the last two quarters (January-June 1965) were higher than in the same period of the preceding fiscal year (see Table 3).

Moreover, the data on defense obligations—which include commitments currently being incurred for pay of the armed forces as well as defense contracts being awarded to private industry—show that the upturn began in January 1965. By the fourth quarter of 1965, defense obligations were running at about \$9 billion higher than the last quarter of 1964, at seasonally adjusted annual rates. By June 1966, defense obligations were running \$22 above the rate of the end of 1964. The January 1966 Budget Message stressed restraint in Federal fiscal policy, a theme that became even stronger in later public statements.

TABLE 3.—Selected measures of U.S. military spending

[In billions of dollars at annual rates]

Calendar year and quarter	Defense obligations		Defense expenditures (budget basis)
	Actual	Seasonally adjusted	
1964:			
1st quarter.....	52.0	55.2	49.2
2d quarter.....	61.0	54.8	56.8
3d quarter.....	55.0	53.3	43.1
4th quarter.....	51.8	53.3	48.1
Total.....	55.0	54.2	49.3
1965:			
1st quarter.....	48.2	51.0	46.8
2d quarter.....	62.2	55.0	51.6
3d quarter.....	60.6	59.0	48.6
4th quarter.....	62.1	62.1	54.1
Total.....	58.3	56.8	50.3
1966:			
1st quarter.....	60.5	64.6	56.4
2d quarter.....	86.4	75.9	62.4
3d quarter.....	77.0	75.2	63.4
4th quarter.....	68.9	72.9	65.8
Total.....	73.2	72.0	62.0

Source: Departments of Defense and Commerce.

The January 1967 Federal Budget greatly clarified the pace of the military buildup resulting from Vietnam. It estimated that Vietnam spending would reach \$19.4 billion in fiscal 1967 and \$21.9 billion in 1968. By then the magnitude of the U.S. involvement in Vietnam, as well as its impact on the Budget

³⁴ This point is brought out vividly in the following dialogue between Secretary McNamara and Senator Karl Mundt:

"Senator Mundt: What is it you are recommending in terms of Vietnam?"

"Secretary McNamara: We talked some yesterday about Vietnam cost estimates, and I said then it was very difficult to make them on any rational basis. The best we can give you is a range of something between \$17 billion and \$22 billion for fiscal year 1968, the \$22 billion being the more commonly used figure.

"Now, if it is \$22 billion for the year, it is on the order of \$2 billion a month for fiscal year 1968, and we are, I would guess—

"Senator Mundt: You can tell us how much per month is being spent now, though?"

"Secretary McNamara: Not really for Vietnam alone, sir. It is almost impossible to do it on a yearly basis, and it is really impossible to do it on a monthly basis. I can tell you how much we are spending in total for defense per month of course, but splitting that into Vietnam and non-Vietnam is honestly almost impossible." *Military Procurement Authorizations for Fiscal Year 1968*. (Hearings before the Committee on Armed Services and the Committee on Appropriations, U.S. Senate, 1967, p. 265.)

and on the economy, was fairly clearly grasped by the public. The Pentagon estimated that it would spend \$72.3 billion in the fiscal year 1968, for all military operations—a figure larger than any earlier period except the peak of World War II. Total military expenditures, excluding military assistance to foreign nations, is estimated to be two-thirds higher than at the Korean War peak and about twice the level reached during the post-Korea low. Nevertheless, the fiscal 1968 estimate represents a leveling of the rapid upsurge in military demand which has occurred since the Vietnam War escalated in the summer of 1965.

In retrospect, it appears that the latter part of 1965 and most of 1966 constituted the period where the domestic consequences of this nation's commitment in Vietnam were not fully or generally understood. The year 1967 does not seem to be a period of equal uncertainty, although the possibility of another fundamental escalation in the level of the U.S. commitment persists. Hence, it seems both necessary and useful to review the earlier period in considerable detail, particularly in the hope of identifying some lessons for future economic policy.

B. The economic policy response in 1966

The January 24, 1966 Budget message of the President estimated that Department of Defense expenditures would rise from \$46.2 billion in fiscal year 1965 to \$52.9 billion in 1966 and \$57.2 billion in 1967. On both a cash and national income accounts basis, the Federal Budget was estimated to be in approximate balance in fiscal 1967; on the administrative budget basis, the deficit of \$1.8 billion estimated for 1967 would be a reduction from the \$6.4 billion deficit envisioned for fiscal 1966.³⁵

On this basis, the President stated in the January 1966 *Economic Report* that, "The fiscal program I recommended for 1966 aims at full employment without inflation."³⁶

The January 1966 Budget Message called for several steps that would increase Federal revenues, notably putting personal and corporate income taxes more nearly on a pay-as-you-go basis and temporarily reinstating the excises on passenger automobiles, and telephone service which had just been reduced.³⁷

On the expenditure side of the budget, despite statements on economy and efficiency, the customary items were found in the details of the document. For example, it was recommended that the Department of Agriculture start construction of 35 watershed projects and 1600 miles of forest roads, that the Bureau of Reclamation start work on three new projects with a total cost initially estimated at \$1 billion, that the Corps of Engineers start building 25 new rivers and harbors projects and begin designing 23 more, that the General Services Administration finance construction of 33 government office buildings and design 10 more, and that the Government Printing Office acquire additional buildings.³⁸

The January 1966 Budget did not contemplate the firm policy of no new starts on public works projects that was maintained during the Korean War. It appeared, at least to many observers, that the Nation could afford simultaneously to wage a two-front war without raising taxes, the domestic war against poverty and the war in Vietnam. That theme was clearly stated in the Budget Message:

"We are a rich nation and can afford to make progress at home while meeting obligations abroad—in fact, we can afford no other course if we are to remain strong. For this reason, I have not halted progress in the new and vital Great Society programs in order to finance the costs of our efforts in Southeast Asia."³⁹

Secretary McNamara's testimony on the military budget in February 1966 clearly showed that the Administration was discounting any inflationary impact of the Vietnam buildup:

"As you can see, by itself, the defense program should not be a major factor contributing to inflationary pressures. I say this even though you are now considering a \$12.3 billion supplemental to the fiscal year 1966 defense budget . . . defense expenditures will, in effect, be no more of an inflationary element in

³⁵ *Budget of the United States Government for the Fiscal Year Ending June 30, 1967* (hereafter referred to as *1967 Budget*), p. 11.

³⁶ *Economic Report of the President, January 1966*, p. 10.

³⁷ *1967 Budget*, p. 9.

³⁸ *Ibid.*, pp. 192-322.

³⁹ *Ibid.*, p. 7.

fiscal years 1966 and 1967 by virtue of their relative demand on the economy than they were in the period from 1960 to 1964, and therefore by themselves are not sufficient cause for predicting inflation."⁴⁰

In retrospect, things did not work out so well as anticipated. Although the unemployment rate declined below 4 percent, *the year 1966 witnessed the most rapid period of price inflation since the Korean War*. In striking contrast to the virtual stability during the period 1953-64, the wholesale price index, which had been rising by about 1½ percent annually in recent years, mainly due to the rising cost of services, climbed more than 3 percent in 1966.⁴¹

The second, related result of economic pressures in 1966 was the virtual collapse, at least temporarily, of the Council of Economic Advisers' wage-price guideposts. These were designed to reduce or avoid inflationary pressures in the economy by encouraging management and labor to hold wage increases to the trend increase in productivity in the economy as a whole. The CEA's guidepost of 3.2 percent was widely violated during the year, and prices rose even in the absence of cost pressures.

The basic explanation would appear to be that—despite the assurances in the Economic Report—*the increases in government civilian and military demand, coupled with the continued expansion in business expenditures for new plant and equipment, exceeded the capability of the economy to supply goods and services in 1966 at then current prices.*

Some perspective may be helpful prior to attempting to identify the specific factors which help to explain the 1966 circumstances. The United States has been engaged in a large-scale war; but it has not shifted to a war economy. Ours is truly a mixed economy: the Nation literally is concerned with social security as well as national security. The controls or runaway inflation often associated with war-time experiences are not present. Yet, the economy has been pressing very closely to the limits of available capacity and the nation is making choices somewhat analogous to guns versus butter, but not quite so. In a sense, as a country, we are choosing both more guns and more butter. However, we are also choosing less private housing and fewer automobiles while we are voting for more urban redevelopment and additional public transportation—thus simultaneously increasing both the military and civilian portions of the public sector in both relative and absolute senses (see Table 4).

TABLE 4.—*Changing proportions of GNP*

	1964 4th quarter	1966 4th quarter
National Defense purchases.....	7.5	8.6
Consumer durables and residential housing construction.....	13.2	12.1
All other.....	79.3	79.3
Total.....	100.0	100.0

Source: U.S. Department of Commerce.

An evaluation by the Federal Reserve Bank of New York of the role of military demand in the American economy was typical of that of many observers during the period: "The rapid growth of defense requirements was the largest single factor shaping the course of economic activity in 1966."⁴²

The Bank pointed out that although the share of GNP directly attributable to defense requirements was still only a relatively modest 8½ percent at the end of 1966, the significance of defense is suggested by the fact that enlarged *defense outlays for goods and services accounted for nearly 25 percent of the increase in GNP in 1966*. This represented a striking shift from the earlier years of the current economic expansion when such spending contributed little or nothing to the overall growth of demand.

To cite again the words of the Federal Reserve Bank of New York, "The military buildup and the demand pressures associated with it affected virtually every

⁴⁰ U.S. House of Representatives, Committee on Appropriations, *Department of Defense Appropriations for 1967*, Part 1, 1966, pp. 4-5.

⁴¹ *Economic Report of the President*, January 1967, pp. 262, 264.

⁴² Federal Reserve Bank of New York, *Annual Report*, 1966, 1967, p. 13.

sector of economic activity."⁴³ The armed forces, in adding more than 500,000 men during the year, took over two-fifths of the total increase in the nation's available manpower, contributing directly to the tightening of civilian labor markets. A substantial share of the remaining expansion in the nation's work force was absorbed by the many firms with rising backlogs of defense orders.

The surge of military demands was obviously a sharp spur to activity in a number of industries, especially aircraft, ordnance and electronics, where employment during the year rose between 10 and 20 percent. This in turn led to intensified pressures on productive capacity. These industries reported some of the most rapid increases in expenditures for new plant and equipment. The result was further stimulus to the already high level of capital spending.

Also, the rapid rate of business inventory accumulation during 1966 was in good measure related to the expansion of defense demand. *About one-fourth of the increase in manufacturers' inventories during the year occurred in the aircraft, ordnance and electronics equipment, industries alone.* (See Appendix tables.)

C. The underestimate in the military budget

One major factor helping to explain the emergence of inflationary factors in 1966 not anticipated in the January Budget and Economic Messages was the underestimate in military spending. The January 1966 Budget projected the cost of Vietnam at \$10.2 billion in the fiscal year 1967. The current official estimate is almost double that—\$19.4 billion (see Table 5).

TABLE 5.—*Estimated appropriations and expenditures for special support of Vietnam operations*

[In billions]

Fiscal year	Appropriations		Expenditures	
	Estimated in 1967 budget	Estimated in 1968 budget	Estimated in 1967 budget	Estimated in 1968 budget
1965.....	\$0.7	\$0.7	\$0.1	\$0.1
1966.....	14.0	14.9	4.4	5.8
1967.....	8.7	22.0	10.2	19.4
1968.....	(1)	20.6	(1)	21.9

¹ Not available.

Source: 1967 Budget, pp. 73-75; 1968 Budget, p. 77.

There are several facets to this substantial change in the direct expansion of Vietnam military demand. The January 1966 Budget Message contained what seemed at the time to be a very straightforward statement to the effect that "It provides the funds we now foresee as necessary to meet our commitments in Southeast Asia." The Message went on to state that if efforts to secure an honorable peace bore fruit "... these funds need not be spent." It appeared to the public observer that the U.S. role in Vietnam was fully funded. If there were any doubt about the matter, it seemed to be resolved by the statement, "... it would be folly to present a budget which inadequately provided for the military and economic costs of sustaining our forces in Vietnam."⁴⁴

In his testimony on the military budget, Secretary McNamara stressed that the budget was based on "... a somewhat arbitrary assumption regarding the duration of the conflict in Southeast Asia." This assumption—which was not mentioned anywhere in the January 1966 Budget—was that U.S. combat operations in Southeast Asia were to be budgeted only through June 30, 1967. "Should it later appear that combat operations will continue after that date at relatively high levels, it may be necessary to amend this budget request or supplement it later with additional funds," stated the Secretary of Defense.⁴⁵

⁴³ *Ibid.*

⁴⁴ 1967 Budget, p. 7.

⁴⁵ Same as footnote 40, p. 70. "The budget is not misleading once the rather sophisticated assumptions are understood, and the Administration has not made much of an effort to see that they are." William Bowen, "The Vietnam War: A Cost Accounting," *Fortune*, April 1966, p. 259.

The explanation for the need for a supplemental to the fiscal 1967 budget if the war were to extend beyond the fiscal year lies in the long lead-time of military procurement. In many cases, weapons required in the fiscal year 1968 would need to be ordered during 1967. This helps to explain also why the military appropriations requested for 1967 were lower than those for 1966 (\$58.9 billion versus \$61.8 billion).

Another factor revealed in the Congressional hearings was that, in order to avoid the buildup of surplus inventories that occurred during the Korean War, Secretary McNamara reduced the estimates of certain supply requirements below the consumption levels predicted by the services for the force levels then being planned for. He pointed out that if the services' initial estimates later proved to be correct, inventories could be drawn down to cover the difference or additional funds could be requested. The Secretary of Defense emphasized his concern that the Nation avoid the situation that occurred at the end of the Korean War when a vast quantity of surplus military stocks were on hand, far beyond any need at the time.⁴⁶ The Department of Defense had unexpended balances of about \$32 billion at the end of 1953. It took about five years to work the unexpended balances down to more reasonable levels.

It was estimated in the January 1966 Budget Document that the Department of Defense would end the fiscal year 1967 with unobligated funds totalling \$10.4 billion and unexpended funds totalling \$43.8 billion.⁴⁷ Hence, it appeared that the Pentagon would be able to support a level of defense spending for Vietnam \$10 billion above the original estimate for fiscal 1967.

During much of 1966, it was becoming clear that the military spending rate was exceeding that implied in the January budget. However, the Administration did not issue the traditional Midyear Review of the Federal Budget in the Fall of 1966, which would have updated the estimates contained in the January budget. The reasons given were the uncertainties in Vietnam and the delay of Congressional action on budgetary legislation.⁴⁸

Nevertheless, *the lack of current estimates of military spending requirements made more difficult any intelligent public debate over appropriate economic policy.* Statements such as the following one by the Secretary of the Treasury in March 1966 indicated the difficulties faced by nongovernmental observers:

"At the same time let me emphasize that our current estimates of Vietnam expenditures remain, in the view of those most qualified to judge, an accurate evaluation of our needs so far as we can now foresee, and I would hope that, when the need for responsible restraint is so great, no one will base his economic decisions on the purely speculative assumption that our Vietnam needs will exceed current expectations."⁴⁹

A slowdown also occurred in the release of the most detailed public source of historical defense expenditure and obligation information, the Defense Department's *Monthly Report on the Status of Funds*.⁵⁰ Through the Fall of 1966, when most business, financial, and other private observers were preparing and issuing economic forecasts for the calendar year 1967, the latest available issue of the *Monthly Report* was that for June 1966. The July and August issues never did appear; the September issue appeared too late in December to be useful for most of the forecasting work for 1967. More recently, the reports have been issued with only the customary lag.

The Budget for the fiscal year 1968, transmitted to the Congress in January 1967, did not contain any arbitrary assumption as to the termination of the fighting in Vietnam. The President's budget message, in discussing the Vietnam requirements, stated that the 1968 Budget ". . . provides for those requirements on a continuing basis, including the possibility of an extension of combat beyond the end of the fiscal year."⁵¹

⁴⁶ Same as footnote 40.

⁴⁷ 1967 Budget, p. 49.

⁴⁸ The discussion of this point between Congressman John W. Byrnes and Budget Director Charles J. Schultze is quite fascinating. At first the Budget Director stated that in no year when the Congress adjourned as late as it did in 1966 was a midyear review issued. In the face of numerous citations to the contrary, the Budget Director then modified his position to the effect that in no year that the budget legislation was enacted as late as it was in 1966 was a review issued. See U.S. House of Representatives Committee on Ways and Means, *Temporary Increase in Debt Ceiling*, January 1967, pp. 53-55.

⁴⁹ Quoted in *Hearings on 1967 Economic Report*, Part 1.

⁵⁰ U.S. Department of Defense, Office of the Assistant Secretary of Defense (Comptroller), *Monthly Report on the Status of Funds by Functional Title* (processed).

⁵¹ 1968 Budget, p. 19.

In the early February of 1967, the annual hearings before the Joint Economic Committee on the President's Economic Report were the occasion for some attempts at clarification of the earlier budgetary procedure. Senator William Proxmire, the Committee Chairman, opened the discussion of the underestimate of Vietnam expenditures with the following statement:

"... in 1966 our Government made a serious economic policy blunder. Our fiscal policy was established early in 1966... on the assumption that the Vietnam war would cost \$10 billion... it is clear to me that we would have reduced spending and/or increased taxes—possibly both—if we had better and more accurate information."

The initial reply was given by Gardner Ackley, the chairman of the President's Council of Economic Advisers. He stated that one half of the difference between the original estimate of the cost of Vietnam during the fiscal year 1967 (\$10.2 billion) and the revised estimate (\$19.4 billion) reflected the assumption that the war would terminate by June 30, 1967. "The other half reflects the fact that there was a more rapid and efficient buildup of forces in Vietnam than had been initially considered possible, and second, increased requirements resulting from more intensive hostilities than had been initially assumed."⁶²

Mr. Ackley contended that the problem was "not a failure of communication," but due to the "uncertainty of the situation." The tenuous nature of the assumed June 30 termination was brought out during the subsequent dialogue between Senator Proxmire and Budget Director Charles J. Schultze:

"Chairman Proxmire... This assumption that the war would end on June 30, 1967, becomes more fantastic as I think about it, because, of course, the war could end on May 1 or June 1, and we still would have been \$10 billion off, or very close to it. So we not only assumed that the war would end on June 30, but we assumed we would know about it well in advance, and we could have slowed down our procurement so we couldn't have procured anything to fight in the period subsequent to July 1, 1967, isn't that correct?"

"Mr. Schultze... I can't answer that yes or no."⁶³

D. The underestimate of the initial economic impact of Vietnam

The second factor explaining the growth of inflationary pressures in the American economy in 1966 relates to the point developed earlier in this study—the leads and lags in measuring the impact of government spending, and specifically in understanding how a military buildup affects the economy.

The key point is that, under our private enterprise system, the great bulk of military production is carried on in the private sector of the economy. As a result, when there is a large expansion in military orders, as occurred in fiscal 1966, the immediate impact is *not* felt in the government budget.

The initial impact—in terms of demand for labor, materials, and resources generally—is felt by the government contractors in the *private* sector. Hence, particularly during the early stage of a military buildup, we have to look at the private sector to see the expansionary effects. As pointed out earlier, this is hardly a new phenomenon. This timing relationship was the factor that contributed so greatly to the inflation that accompanied the first year of the Korean mobilization.

By just looking at the Government's budget during fiscal year 1951, it seemed that the public sector was following a policy of fiscal restraint. Policy officials generally overlooked the almost doubling in the volume of defense orders to private industry during that same period. Unfortunately, the same mistake was repeated during the first year of the Vietnam buildup. *The most rapid period of expansion in military contracts to private industry occurred in 1966; so did the most rapid rate of price inflation in recent years.* But that was the period when the Nation and particularly the Administration's economists were still congratulating themselves on the success of the 1964 tax cut and little need was felt, at least officially, for greater fiscal restraint.

Some detailed analysis of this point seems to be in order. As a benchmark, it may be recalled that in fiscal year ending June 30, 1965 total contracts placed, orders let, and other "obligations" incurred by the Department of Defense were about \$54 billion. The concept of obligations is used here because it is a generic term, including both government payrolls and contracts with private firms. In

⁶² *Ibid.*

⁶³ *Ibid.*

the January 1966 budget, it was estimated that this rate of making new commitments would rise to well over \$63 billion in fiscal year 1966. In retrospect, the January budget underestimated the rise in military demand during the fiscal year which was then in progress.

The actual amount of new obligations incurred during fiscal year 1966 was somewhat in excess of \$67 billion, or almost one-fourth greater than in 1965. Actual expenditures increased at a much slower rate during the same period—17 percent. In other words, *obligations* are the more sensitive or leading indicator. Unfortunately from the viewpoint of analyzing business conditions, the supposedly most sophisticated measure of government finance, the so-called national income accounts budget, uses a concept that even lags behind actual government outlays—the delivery of completed military equipment. To compound the problem, the national income accounts budget picks up government revenues on an accrual basis, which precedes the actual receipt of cash by the government.

As was pointed out earlier, much of the impact on employment, production, an income of a military buildup occurs primarily at the points in time that budget recommendations are made, increased appropriations are enacted, and orders placed with military contractors. *However, the statement of Federal receipts and expenditures on national income account—the national income accounts budget—confines the measurement to the actual delivery of completed weapons and other military "hard goods."*

The policy implication of all this is that the official budget and economic reports were very slow to pick up the expansionary impact of the Vietnam buildup, but very quick to take account of the deflationary impact of the expansion in revenues. *The net result is that the Federal Government, though apparently following a non-inflationary economic policy in 1966, was actually a major source of inflationary pressure in the American economy during that time.*

Some statistical support for the foregoing is contained in Table 6.⁵⁴ On the far left in Table 6 is the officially reported surplus or deficit in the so-called national income accounts budget. This, the Administration economists have contended, is the best measure of the economic impact of fiscal policy. On that basis, the Federal budget shifted from a position of ease in the second half of calendar 1965 (a deficit of \$1.4 billion) to some restraint in the first half of 1966 (a surplus of \$3.1 billion).

TABLE 6.—Federal surplus or deficit: Some variations on the national income accounts budget

(Billions of dollars at annual rates)

Calendar year	Federal surplus (+) or deficit (-) official basis	Adjustments for defense obligations		Federal surplus (+) or deficit (-) adjusted basis	
		A	B	A	B
1964:					
1st half.....	-4.3	-0.1	-0.1	-4.4	-4.4
2d half.....	-1.8	-4.4	-2.2	-6.2	-4.0
1965:					
1st half.....	+4.4	-2.0	-1.0	+2.4	+3.4
2d half.....	-1.4	-5.2	-2.6	-6.6	-4.0
1966 estimated:					
1st half.....	+3.1	-8.4	-4.2	-5.3	-1.1
2d half.....	-2.0	-5.2	-2.6	-7.2	-4.6

Source: Data from U.S. Departments of Commerce and Defense. Adjustments are described in the text.

The next two columns in the table contain two alternative sets of rough adjustments for the fact that new contracts awarded may be a better indicator of the impact of a military buildup on the economy than delivery of completed weapons. The A series is essentially the excess of military obligations over expenditures during the period, seasonally adjusted and converted to an annual basis. One further change has been made. Over the years, about two to three

⁵⁴ For an earlier attempt along these lines, see M. L. Weidenbaum, *The Federal Budget and the Outlook for Defense Spending*, Washington University Working Paper 6610, November 1966.

billion dollars worth of obligations each year do not seem to result in actual expenditures. A number of technical factors are at work here, including some double counting of contracts awarded by one military agency in behalf of another military agency. Such a case might be Air Force procurement of aircraft for the Army, which may show up as an Army obligation to the Air Force, as well as an Air Force obligation to the airplane manufacturer. In computing both the A and B adjustment series, the annual obligation figures were reduced by \$3 billion in each case to take account of the double counting and to assure that any error is on the conservative side.

It can be seen, referring to the A column on the right hand side of Table 6, that adjusting for defense obligations by this method results in some significant changes in the usual measure of Federal fiscal impact. The second half of 1965 is now seen to be a period of much more substantial expansionary effect in the Federal budget than shown on the official basis. Of greater interest of course is the indication that the first half of 1966 was not a period of fiscal restraint but instead one with a substantial excess of outgo over income.

The B adjustment is a more conservative effort. It is a statistical compromise between the two approaches, the result of an arithmetic averaging of military obligations and expenditures for each period. The theoretical rationale that can be offered is that a more proper counterpart to the liability basis of the corporate revenue computations might be somewhere between the extremes of contract placement and governmental disbursement.

As would be expected, the B results are somewhat more moderate than the A series. The adjusted Federal deficit for the latter part of 1965 is rather large, but, on this basis, the first half of 1966 witnessed a deficit of somewhat reduced proportions. The adjusted deficit rises in the second six months of the year. Even the B series provides a very weak case for the widely made claim that fiscal restraint occurred during 1966.

E. Monetary and fiscal policy complications

The mild fiscal policy restraints recommended in the January 1966 budget turned out to be inadequate to stem the inflationary pressures that were building up. Some private observers were more concerned over the inflationary impact of the January 1966 budget recommendation. A report prepared at Washington University in early February 1966, stated:

"* * * the inflationary impact of the January 1966 Budget submission has been underestimated and that fiscal policy measures may need to be modified substantially * * * the current, immediate inflationary potential—during the fiscal year 1966—has been virtually ignored."⁵⁵

This report was picked up by a number of publications at that time, including the *Wall Street Journal* and *Business Week*. The latter referred to "skepticism of the degree of restraint that the Federal budget in fact provides for the economy."⁵⁶

To some extent, the inflationary pressures of the Vietnam buildup were accentuated by a rather liberal monetary policy in 1965, some of the results of which were continued to be felt in 1966. It has been pointed out that the rate of monetary expansion should have decelerated as early as 1965 as the economy regained reasonably full employment. Nevertheless, the rise in the money supply was allowed to pick up speed from an 8.0 percent annual rate in the first six months of 1965 to a 10.6 percent rate in the second half.⁵⁷ Beginning in December 1965, the Federal Reserve Board undertook a series of steps to tighten the availability of credit. By April 1966, the steep rise in the money stock was halted and a slight decline occurred through the remainder of 1966.

The most dramatic, early action was the Fed's raising the discount rate from 4 to 4½ percent. Effective December 6, 1965, the interest rate charged member banks for borrowing from their district Federal Reserve Banks was increased in an effort to "maintain price stability." Simultaneously, the Federal Reserve Board increased the maximum rates that member banks were permitted to pay their depositors to 5½ percent on all time deposits and certificates of deposit

⁵⁵ M. L. Weidenbaum, *The Inflationary Impact of the Federal Budget*, Washington University, Department of Economics Working Paper, February 10, 1966.

⁵⁶ *Business Week*, February 19, 1966, p. 29; George Shea, "The Business Outlook," *Wall Street Journal*, February 21, 1966, p. 1.

⁵⁷ Testimony of Paul W. McCracken in *Hearings on 1967 Economic Report*.

having a maturity of 30 days or more.⁵⁸ The latter action was to have serious repercussions on the savings institutions in 1966, a subject beyond the purview of this study.

A member of the Federal Reserve Board, J. Dewey Daane, explained shortly afterwards that the actions were taken because of "increasing evidence that aggregate demands were rising at an unexpectedly rapid pace and absorbing the remaining margin of unutilized capacity" of the national economy. He specifically noted that "over the summer, a step-up had been announced in the United States' participation in Vietnam, presaging on acceleration in defense outlays."⁵⁹

The Fed's action was sharply criticized at the time. Some Administration spokesmen contended that the Board should have waited until the January 1966 Presidential messages which would indicate both the expected future level of military spending and the degree of restraint in its fiscal policy. At least two members of the Board itself, Governors George W. Mitchell and Sherman J. Maisel, appeared to agree with the criticism in public testimony before the Joint Economic Committee in December 1965.⁶⁰ Some Administration reaction was more general. Secretary of Labor W. Willard Wirtz stated, "There can be no tolerance for the suggestion that expansion of the economy must be slowed down, by increasing interest rates or in any other way, while there is still so much to be done."⁶¹

At first, monetary policy was only mildly restraining. Member bank reserves continued rising, reaching a peak of \$21.7 billion in April 1966, compared to \$20.7 billion during the preceding Fall. Monetary policy tightened further in the Spring of 1966, with the total of member bank reserves remaining at the April figure through the middle of the year. The increased financial tightness also showed up in the money supply, which reached a peak of \$171 billion in April and then declined, irregularly, to a low of \$169 billion in November.

In the Summer and Fall of 1966, the Federal Reserve System took additional steps to slow bank lending. These included the unusual letter of September 1, requesting commercial banks to limit their loans to business. The letter indicated that the discount windows at the Federal Reserve Banks were open to banks conforming to these guidelines.

Other measures were taken to limit the ability of the commercial banks to compete for time deposits, including increasing reserve requirements against these deposits of over \$5 million from 4 percent to 5 percent in July and to 6 percent in September 1966. By the end of September it appeared that the peak monetary stringency had passed. Most interest rates declined somewhat and bank reserves rose again. Late in December 1966, the monetary authorities rescinded their September 1 letter, once again encouraging banks to lend in their customary fashion.⁶²

In September 1966, the President proposed the suspension of the 7 percent investment tax credit and of accelerated depreciation on commercial and industrial buildings for a period of 16 months. The tax measure was passed, with some modifications, in late October 1966.

The January 1967 Budget Message recommended a general and temporary six percent increase in individual and corporate income tax rates, effective July 1, 1967. However, the recommendation was made conditional upon a later examination of economic developments.⁶³ In March 1967, the President requested the Congress to restore the 7 percent investment tax credit which had been suspended in the Fall of 1966 as an anti-inflationary move.⁶⁴ Apparently, the worst of the inflationary pressures resulting from the Vietnam buildup were over, barring another major escalation.

⁵⁸ Press Release of the Board of Governors of the Federal Reserve System, reprinted in *Recent Federal Reserve Action and Economic Policy Coordination*, Hearings before the Joint Economic Committee, Congress of the United States, Part 1, December 13 and 14, 1965, pp. 13-14.

⁵⁹ J. Dewey Daane, "A Review of Recent Fed Actions," *Banking*, December 1966 (reprint, p. 1).

⁶⁰ Cf. *Recent Federal Reserve Action and Economic Policy Coordination*, pp. 21-34.

⁶¹ "Wirtz Criticizes Credit Tightening—Attack Strongest Yet," *Washington Post*, December 2, 1965.

⁶² Cf. "The Great Squeeze—Lessons for the Banking System," *Business in Brief*, Chase Manhattan Bank, February 1967.

⁶³ *1968 Budget*, p. 9.

⁶⁴ "Johnson Asks Restoring of 7% Investment Tax Credit. Cites Signs Capital Goods Industry Has 'Calmed Down,'" *Wall Street Journal*, March 10, 1967, p. 3.

F. Resultant economic policy problems for 1967

The previous criticisms notwithstanding, some positive impacts of governmental economic policy during this period also need to be acknowledged. A fundamental requirement on such policy was most successfully achieved—the large and rapid shift of resources from civilian uses or idleness to military programs.

In this vein, Budget Director Charles J. Schultze stated recently to the House Ways and Means Committee:

“Our military effort in Vietnam has not suffered in any way from a shortage of funds. We have provided every plane, every gun, and every cartridge needed to support operations in Vietnam.”⁶⁵

At the same time, direct controls over prices, wages and materials generally were avoided (set-asides were in force for copper and a few other key materials). Moreover, economic growth and real improvement in the living standard of the average American continued despite the defense spending increases and the inflation.

In real terms—that is after making allowance for price rises—U. S. Gross National Product rose from \$614 billion in 1965 to \$648 billion in 1966 (in 1958 dollars), a growth rate almost equal to that of 1965. Increases also occurred in 1966 in real disposable income per capita and in personal consumption expenditures per capita.⁶⁶

In commenting on economic trends in the American economy in 1966, Gardner Ackley told the Joint Economic Committee the following:

“It is far from a perfect record. But I think if one looks at it in the large, in terms of the outcome for the year as a whole, it is a record of which we can be pretty proud.”⁶⁷

Nevertheless, in retrospect, it can be argued that a major error occurred in domestic policy in the United States during 1966. In this era of sophisticated information systems, it still seems that a parallel can be drawn with the prehistoric brontosaurus whose internal communication system was so primitive that when another animal started chewing on the end of its tail, it lost its entire tail before the news reached the brain.

Somewhat analogously, *during much of 1966, especially the first half, the Nation and its economists were occupied with congratulating themselves on the success of the 1964 tax cut—when the problem suddenly had become combatting inflation rather than unemployment.*

A three-fold dilemma resulted from the various developments already covered in this study:

1. The Nation was not fully aware of the economic implications of the U. S. buildup in Vietnam.
2. Economists were not generally cognizant of the timing problems in evaluating the economic impact, and
3. Neither public officials nor private opinion were agreed as to either the need for or the nature of additional public policy measures to be taken.

Many, of course, were not convinced of the need for tighter fiscal policy, particularly in view of the Federal Reserve's tightening monetary policy. Others who would have preferred a tax increase to the extreme credit stringency did not believe that the Nation would accept so sharp a turn in fiscal policy—from tax reduction to tax increase—so quickly. Finally, even those who preferred the route of reducing government expenditures seemed to think that the Federal budget only contained two high-priority categories, defense programs and Great Society endeavors, overlooking the vast array of outmoded subsidies and special benefits.

It became clear also that, although the wage-price guideposts might be effective during a period characterized by mild cost-push inflationary pressures in an environment of some economic slack, they did not work as well during periods of demand-pull inflation such as characterized 1966.

Other negative results of the 1966 experience may be in terms of the legacy bestowed upon the future. To what extent will cost-push inflationary pressures dominate the American economy in 1967 after the aggregate demand-pull

⁶⁵ U. S. House of Representatives, Committee on Ways and Means, *Temporary Increase in Debt Ceiling*, January 1967, p. 10.

⁶⁶ *Economic Report of the President*, January 1967, pp. 214, 232.

⁶⁷ *Hearings on 1967 Economic Report*, Part 1.

pressures may have subsided? Given the conditional tax increase recommended in the January 1967 Budget, to what extent does the Nation face the possibility of a tax increase coming after the major impact of the Vietnam buildup has occurred and the economy softened?

Perhaps more fundamentally, *the failure of the Nation either to understand how a military buildup affects the economy, much less to take prompt and effective action to curtail the excessive demand that results, does not augur well for a smooth economic adjustment to the hoped-for downturn in military spending after a successful termination of hostilities in Vietnam.* In such a case, the deflationary impact of defense contract cancellations and layoffs of defense workers might occur while defense expenditures and/or deliveries were still rising. If tax reduction or monetary ease or expansion in selected non-defense spending were to wait until sizeable declines in defense purchases showed up in the GNP, governmental economic policy once again would be too slow and too late.

IV. A CROSS-SECTIONAL ANALYSIS OF THE CURRENT MILITARY BUDGET

The 56 percent increase in the level of U.S. military spending scheduled to take place within the three-year period July 1, 1965-June 30, 1968 is, of course, dramatic and having a major impact on the national economy. No doubt less dramatic but of substantial importance to individual communities, companies, and workers is the simultaneous changes which are taking place in the composition of the military budget.

A. The changing composition of military spending

Changes taking place within the military budget have been affecting the extent to which different industries and regions are participating in the defense program. The key to understanding the developments is analyzing the shifting "product mix" of military spending. The fundamental change is the shift of emphasis away from (a) developing and maintaining in being the potential capability to deal with hypothetical world-wide or general-war situations and towards (b) operating a military establishment actually waging a difficult but limited war whose dimensions keep on evolving. Table 7 shows the extent to which funds for U.S. combat forces have been shifting from general war to limited war programs. It is striking to note that general war forces now receive less than half of the share of the military budget that they received a few years ago.

TABLE 7.—U.S. military budget: General versus limited war (total obligational authority)

Category of combat forces	Amounts (in billions)		Percent of total	
	Cold war (fiscal year 1962)	Vietnam (fiscal year 1967)	Cold war (fiscal year 1962)	Vietnam (fiscal year 1967)
General war capability:				
Strategic offensive forces.....	\$8.9	\$7.1	29.8	16.5
Continental air and missile defense forces.....	2.3		7.7	
Subtotal.....	11.2		37.5	
Limited war capability:				
General purpose forces.....	17.5	34.3	58.5	80.0
Airlift and sealift.....	1.2	1.5	4.0	3.5
Subtotal.....	18.7	35.8	62.5	83.5
Total ¹	29.9	42.9	100.0	100.0

¹ The remainder of the military budget is devoted to support of the combat forces, research and development, military assistance, and retired pay.

Source: U.S. Department of Defense.

A related development, but one not as readily discernible in the available data, is the capital-intensity of the U.S. military effort in Vietnam. The Congressional hearings present numerous instances of the tremendous amount of airborne and

infantry munitions expended by or for the protection of each American soldier fighting in Vietnam. For example, in the fiscal year 1966, 5.1 million tons of supplies and other cargo were shipped from the United States to South Vietnam.⁶³ This comes out roughly to almost 16 tons per U.S. soldier stationed there at the end of the fiscal year. In comparison, the Vietcong is fighting a very labor-intensive war. The result of this different emphasis is two-fold. Primarily, of course, it indicates a *fundamental decision to use up equipment and supplies in order to save the lives of American soldiers*. The secondary result then is the costliness of the war to the American economy and the Treasury in dollar terms (in real terms, in effect we are trading dollars for American lives). One very crude indication of the great capital-intensity of the war effort is the 82 percent increase in military procurement expenditures during the same three-year period as the 56 percent overall increase in military spending.

Detailed breakdowns of the military procurement budget are useful in order to illuminate the regional and company impacts of the fundamental budget changes. Table 8 shows the shifting product mix of all military procurement (on an obligations basis). Three major shifts are taking place: (1) a more than doubling in the amount of funds going to tanks, weapons, ammunition and similar conventional battlefield ordnance, (2) a massive reduction in the relative as well as absolute importance of missiles, and (3) the reorientation of the military aircraft budget away from long-range strategic bombers and to tactical aircraft, particularly supersonic fighters and helicopters. The latter point of course only emerges from analyzing the details of the budgetary reports (see Appendix Tables for details). In general, *the military budget is looking much more like it did during the Korean War and less than during the more recent period of cold war confrontation with the Russians*.

TABLE 8.—*The changing product mix of military procurement*

	Amounts (in billions)			Percent of total		
	Korea (fiscal year 1952)	Cold war (fiscal year 1962)	Vietnam (fiscal year 1967)	Korea (fiscal year 1952)	Cold war (fiscal year 1962)	Vietnam (fiscal year 1967)
Sophisticated equipment:						
Aircraft.....	\$13.1	\$6.4	\$9.8	45.7	35.7	39.8
Missiles.....	.4	4.7	2.1	1.4	26.3	8.5
Electronics.....	1.3	1.5	1.2	4.5	8.4	4.9
Subtotal.....	14.8	12.6	13.1	51.6	70.4	53.2
Conventional equipment:						
Ships.....	1.8	2.2	2.4	6.3	12.3	9.8
Ordnance.....	9.2	2.3	6.5	32.1	12.8	26.4
Other.....	2.9	.8	2.6	10.0	4.5	10.6
Subtotal.....	13.9	5.3	11.5	48.4	29.6	46.8
Total.....	28.7	17.9	24.6	100.0	100.0	100.0

Source: Department of Defense data on obligations incurred.

Hence, the Nation is witnessing a reversal of the shift that occurred in military purchasing in the mid-1950's. Once again, the automotive, mechanical, textile, clothing, and rubber companies are becoming important suppliers of war material. The most dramatic increases have occurred in ammunition (up 270 percent during the past fiscal year), clothing and textiles (up 240 percent), tanks and vehicles (up 80 percent), and food (up 60 percent).⁶⁴ The large aerospace and electronics firms, although still significant defense contractors, are finding their shares of the military market to be declining. For example, the ten firms with the largest amounts of defense contracts in the fiscal year 1966 (nine out

⁶³ U.S. Senate, Committee on Armed Services, *Investigation of the Preparedness Program*, Report by Preparedness Investigating Subcommittee on Airlift and Sealift to South Vietnam, March 1967, p. 2.

⁶⁴ U.S. Department of Defense, *Military Prime Contract Awards and Subcontract Payments*, July 1965-June 1966.

of the ten being aerospace and electronics firms) received 26.6 percent of the total awards compared to 35.8 percent in 1964.

Unlike the period of large weapon systems—such as ICBM's which could only be supplied by a few of the industrial giants—the demands of Vietnam result in numerous smaller contracts involving a great many and variety of medium-size firms as defense suppliers. Small business firms increased their share of defense contract awards from 19.6 percent in fiscal 1965 to 21.4 percent in fiscal 1966.

B. Geographic shifts in defense activity

There is also a geographic dimension to the changes in the military product mix. Large proportions of the companies working on Vietnam orders are located in the Upper Midwest and in other relatively older industrial states in the East. The Far West, which has been receiving so large a share of defense orders during the past decade, is experiencing some absolute as well as relative declines. Table 9 shows the highlights of these changes.

Several states received defense contracts in 1966 at rates of 40 to 50 percent above the previous year's levels. These include Connecticut, Illinois, Indiana, Maryland, Michigan, Minnesota, Ohio, Pennsylvania, and Texas. In contrast, Washington State, Utah, and Colorado have seen their defense contracts virtually cut in half during the past two years. California has remained at the 1963 level, despite the substantial growth in the overall military market which has occurred since then.⁷⁰

TABLE 9.—*The changing geographic distribution of defense contracts*
[Percentage distribution of dollar volume]

Census region	Korean war (fiscal year 1952)	Cold war (fiscal year 1962)	Vietnam (fiscal year 1966)
Northeast:			
New England.....	8.1	10.9	11.9
Middle Atlantic.....	25.1	18.7	17.6
Subtotal.....	33.2	29.6	29.5
Midwest:			
East north-central.....	27.4	12.6	15.3
West north-central.....	6.8	6.7	7.6
Subtotal.....	34.2	19.3	22.9
South:			
South Atlantic.....	7.6	10.4	12.5
South central.....	6.4	7.8	12.2
Subtotal.....	14.0	18.2	24.7
Far West:			
Mountain.....	.7	4.7	2.5
Pacific.....	17.9	28.2	20.4
Subtotal.....	18.6	32.9	22.9
Total.....	100.0	100.0	100.0

Source: Computed from Department of Defense data.

The economic impacts of this shift in the location of the defense industry may not be as simple as would appear. The midwestern states have large, well diversified industrial bases and these recent increases in their defense orders, although dramatic, may be taken in stride as they will require relatively small proportions of existing manufacturing capacity. On the other hand, defense work in recent years has accounted for a proportionately large share of the total manufacturing employment of many western states and in several cases for virtually all the growth of such employment in the major metropolitan areas. The adjust-

⁷⁰ U.S. Department of Defense, *Military Prime Contract Awards by Region and State, 1966*.

ment to the changing military market may be especially difficult for those western states that are not participating in the simultaneous expansion in the commercial aircraft market.

On balance, it would be expected that the reorientation of defense spending toward greater emphasis on limited war equipment, which seems likely to outlast the current Vietnam buildup, will have important differential effects on the relative rates of growth in population, income, and tax bases in the various regions of the country—effects which should primarily be favorable to the Midwest, Southern, and New England areas.

C. Balance of payments effects

Another and special aspect of the impact of Vietnam expenditures on the American economy is the effects on our balance of international payments. The direct, adverse balance-of-payments impact of Vietnam has grown with the size of operations there. It has been estimated that Vietnam-related foreign exchange costs in the fiscal year 1967 will run over \$1 billion higher than in the pre-buildup year of fiscal 1965.⁷¹

Table 10 shows the direct impact of military activities on the U.S. balance of payments. Vietnam has also had an indirect impact as well, by stimulating total domestic spending, including purchases of imported goods. Although there are no precise measures of the indirect effects, it has been estimated that they could be as large as, or even larger than, the direct impact.⁷²

TABLE 10.—*Effects of national defense programs on the U.S. balance of payments*

[Fiscal years, billions of dollars]

	1961	1962	1963	1964	1965	1966
Expenditures:						
Vietnam-related increases.....			0.1	0.1	0.2	0.7
All other.....	3.1	3.0	3.0	2.8	2.6	2.6
Total.....	3.1	3.0	3.1	2.9	2.8	3.3
Receipts.....	.3	.9	1.4	1.2	1.3	1.2
Net adverse balance.....	2.8	2.1	1.7	1.7	1.5	2.1

Source: U.S. Department of Defense.

V. IMPLICATIONS FOR THE FUTURE: PROBLEMS OF TRANSITION

A. The ability to support the level of military spending

From time to time the question has been raised as to how much national security spending the economy can afford. The companion concern is that short-run considerations may impair the long-term capability of the economy to support a large and sometimes expanding array of national security programs.

Recent hearings on the military supplemental appropriations for the fiscal year 1967 showed congressional concern over the ability of the U.S. economy to withstand the costs of the war in Southeast Asia. The following excerpt is illuminating:

"*Senator Symington* . . . My question is, how long can this Nation afford to continue the gigantic financial cost incident to this major ground war in Asia, without its economy becoming nonviable?

"*Secretary McNamara* . . . I think forever, and I say it for this reason. That there are many things many prices we pay for the war in South Vietnam, some very heavy prices indeed, but in my opinion one of them is not strain on our economy."⁷³

⁷¹ "Defense Budget Highlights," *Defense Industry Bulletin*, Vol. III, No. 2, February 1967, p. 3.

⁷² *The Voluntary Program for Direct Investments: Status and Prospects*, Remarks by Gerald A. Pollack, Deputy Asst. Secretary of Commerce, before the National Industrial Conference Board, February 16, 1967, p. 8.

⁷³ U.S. Senate, Committees on Armed Services and Appropriations, *Supplemental Military Procurement and Construction Authorizations, Fiscal Year 1967*, January 1967, pp. 96-97.

There is no simple or generally agreed on method to measure or determine the "burden" of military programs on the economy, much less what, if any, economic ceiling exists on such programs. Yet, available economic analysis tends to support the Secretary's statement.

Using the GNP comparison, the portion of our national sources devoted to the production of military goods and services tended to diminish rather than increase prior to the Vietnam buildup, from 10.5 percent in 1957 to 8.4 percent in 1964. During much of that period, considerable unutilized or under-utilized capacity existed in the economy, far more than was generally desired. Price inflation was not particularly troublesome in those years; the wholesale price index fluctuated within the narrow range of 99.0 to 100.7 from 1967 to 1964 (base of 1957-50=100).⁷⁴

The real cost to society of allocating productive resources to military programs may be said to be that these resources are unavailable for other purposes. Yet, such resources may not be entirely diverted from other uses in practice. Some or all of the resources so used might have remained unemployed but for the expansion of defense activities. On the other hand, if there is any such sacrifice in a given time period, and if the loss is in investment, additional sacrifices will accrue in subsequent time periods as society forgoes the returns on the absent investment.

Even where resources utilized by defense programs are diverted from other sectors, the value of the resultant output does not necessarily measure the value of the output diverted from the civilian sectors. For example, when resources shift from production of comparatively low-valued products such as agriculture to high-valued products such as military research and development, the increment of GNP so absorbed exceeds in value the output yielded by the private sector.

Conversely, the Selective Service System tends to result in substantial economic losses to many men who otherwise would be holding higher paid positions in civilian life. The cost to the economy and to society as a whole is substantially above the direct cost to the Department of Defense of paying, feeding, and clothing these people; it is the opportunity cost of the higher priced goods and services which otherwise they would be producing.

Overall, analyses of the "burden" of defense expenditures have generally concluded that, if necessary for military or political reasons, the American economy could handle, with a minimum of dislocation or hardship, a far higher level of such spending than has been experienced in recent years. These studies or statements have been made by such diverse groups as the Committee for Economic Development, the National Planning Association, a panel of the United States Arms Control and Disarmament Agency, and a group of outstanding university and research economists appearing before the Joint Economic Committee of the Congress. However, many such analyses also concluded that the long-term growth and prosperity of the United States do not require even the current level of national security spending.

Hence, economic constraints do not appear to be an important limitation on the level of defense spending—directly. Indirectly, and essentially through the Federal budgetary process, financial constraints have and are likely to continue to restrict the portion of the Nation's resources devoted to these purposes. This, of course, reflects the fact that governmental appropriations for military items are not made in isolation, but result from the interplay of many conflicting requirements and demands, including those of numerous other Federal programs and of taxpayers who wish to reduce the portion of their incomes taken by the Federal Government.

B. Adjusting to changes in military spending: Peace in Vietnam

The Nation's past experience testifies to the ability of the economy to adjust successfully to major reductions in national security spending. Demobilization after World War II was extremely rapid, and no sizable unemployment problem

⁷⁴ An earlier version of this analysis appears in M. L. Weldenbaum, "Cost of Alternative Military Strategies," in David Abshire and Richard Allen, editors, *National Security, Political, Military and Economic Strategies in the Decade Ahead*, New York, Frederick A. Praeger, 1963, pp. 785-802.

developed. Between June 1945 and June 1946, over 9 million men were released from the armed forces, about three times the present total of military personnel. Between 1945 and 1946, national defense purchases of goods and services were reduced by 75 percent. This reduction was equivalent to more than 25 percent of the GNP in 1945, about three times the present proportion of GNP represented by defense.

The end of the Korean conflict involved a much smaller reduction in defense spending, which in turn started from a much lower peak than at the end of World War II. Tax reductions helped to maintain aggregate consumer income and personal consumption spending. As the total of defense spending leveled off in 1963-64, the national unemployment rate declined, clearly indicating the capability of the American economy to adjust rapidly at least to moderate changes in defense expenditures.⁷⁵

Numerous studies of the economic impact of arms control and disarmament have concluded that the United States is fully capable of making the necessary economic adjustment to fundamental reductions in the level of national security expenditures; the limitations are considered to be mainly in the political sphere—the willingness of the Nation to take measures of sufficient magnitude and promptness to utilize the resources that would be released in such eventuality. The termination of hostilities in Vietnam and/or the reduction in the level of U.S. military spending there would raise such questions once again.

The President's Committee on the Economic Impact of Defense and Disarmament stated, in its July 1965 report, "However, neither the shifts from one kind of defense spending to another (for example, from strategic weapons to weapons of limited war), nor the resumption of the gradual shift away from defense presents major problems to our economy. Even general and complete disarmament would pose no insuperable problems . . ."⁷⁶

At this point, it is extremely difficult to speculate as to the dimensions of a cutback in U.S. defense spending following peace in Vietnam. Perhaps, it would be useful to recall an earlier study which sketched out the budgetary implications of a hypothetical limited war.⁷⁷ That study, published in 1963, analyzed a possible limited war beginning in the fiscal year 1965.

It was hypothesized that the assumed conflict occurs in an area somewhat peninsular or restricted in nature geographically. Moreover, an adjacent critical national boundary limited the freedom of action of our forces. It was further assumed that the conflict ended with a truce in 1967, followed by a continuation of high state of limited war readiness.

A rough approximation of the cost of additional military expenditures under these assumed limited war conditions was on the order of \$18-20 billion for 1967, the peak year. This raised total national security outlays to about \$72 billion (in terms of 1962 dollars). After the postulated truce in the hypothetical limited war, procurement of weapon systems would be reduced from the wartime peak (see Figure 3). However, maintenance and periodic replacement of a force-being larger than that prior to the conflict would be required because of an unstable international situation. If the general dimensions of this hypothetical war correspond to the Vietnam experience, it would be expected that U.S. military spending might decline about \$15 billion during a 12 to 24 month period following the cessation of hostilities. The new level of military spending would then still be in excess of \$50 billion a year and require a large industrial base to support it.

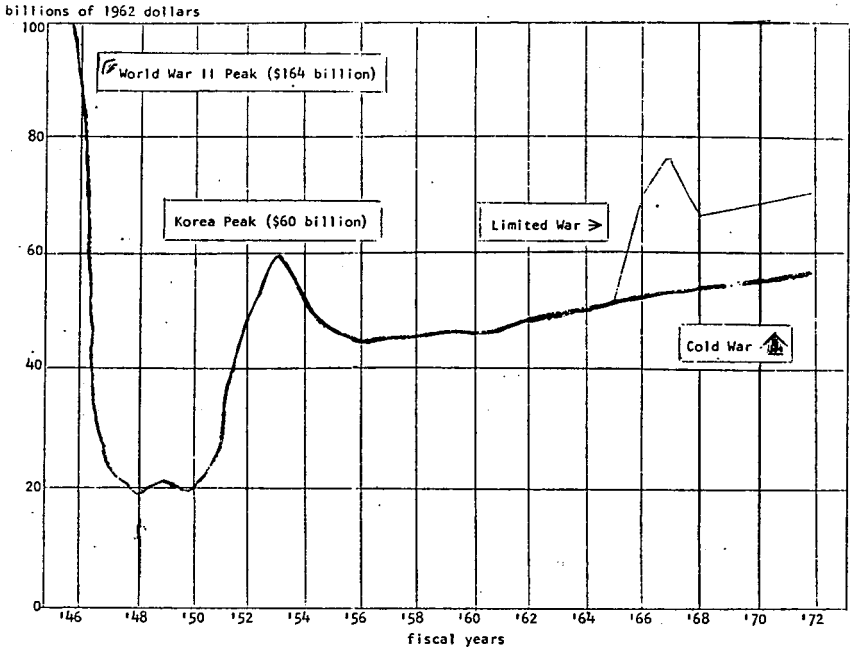
Along the lines of adjustment to a cutback in the military budget, the President, in the January 1967 Economic Report, instructed the Federal agencies to give increased attention to planning for the eventuality of peace in Vietnam. His instructions included the following six steps:

⁷⁵ See M. L. Weldenbaum, "Could the U.S. Afford Disarmament?", in John R. Coleman, editor, *The Changing American Economy*, New York, Basic Books, Inc., 1967, pp. 172-174.

⁷⁶ *Report of the Committee on the Economic Impact of Defense and Disarmament*, Washington, U.S. Government Printing Office, July 1965, p. 1.

⁷⁷ M. L. Weldenbaum, "Cost of Alternative Military Strategies," in David Abshire and Richard Allen, editors, *National Security, Political, Military and Economic Strategies in the Decade Ahead*, New York, Frederick A. Praeger, 1963, pp. 785-802.

Figur 3

PROJECTIONS OF NATIONAL
SECURITY EXPENDITURES

Source: Footnote 75

1. Consider possibilities and priorities for tax reduction.
2. Prepare, with the Federal Reserve Board, plans for quick adjustments of monetary and financial policies.
3. Determine which "high priority" programs can be quickly expanded.
4. Determine priorities for the longer range expansion of government programs, both new and existing ones.
5. Evaluate the future direction of Federal financial support to State and Local governments.
6. Examine how the transition can be smoothed for the workers, companies and communities now engaged in supplying defense needs, and the men released from the armed forces.⁷⁸

A number of specific possibilities (as well as problems) come to mind in examining the Presidential list. Table 11 is a preliminary attempt to indicate the range of options and alternative policy mixes which may become available.

It is apparent that the specific and essentially short-term question of the economic adjustments to the cessation of hostilities in Vietnam also involves many longer-run and perhaps more fundamental considerations of national social, political, and economic policy.

1. *Tax Reduction.*—For example, there are various methods of reducing taxes and thereby pumping additional purchasing power into the national economy. Prior to the Vietnam buildup, there had been some public discussion of focusing the next round of tax adjustments on the lower brackets. Such action could have

⁷⁸ *Economic Report of the President*, January 1967, pp. 23-24.

TABLE 11.—Possible post-Vietnam economic adjustment actions

Category	Some alternatives	Policy issues
Tax reduction.....	(1) Across-the-board reductions in rates; (2) major reductions in lower brackets; (3) increased investment incentives; and (4) institution of a negative income tax.	Stabilization versus growth versus income redistribution objectives.
Monetary and financial policies.	(1) Changes in discount rates, reserve requirements, and Federal Reserve open market transactions; and (2) increases in Federal lending and loan guarantee operations.	Primarily a matter of promptness in timing; also question of appropriate monetary-fiscal mix.
Rapid expansions in Government programs.	(1) Those using similar resources—anti-missile-missile, supersonic transport, planetary, and other space exploration; and (2) conventional programs, such as unemployment compensation, public construction.	Questions include (1) transfer payments versus Government purchases; and (2) prompt utilization of specific defense resources versus concern with aggregate demand.
Longrun expansions in Government programs.	(1) Human-resource types: education training, health investment; (2) physical environment types: transportation, air and water pollution control, housing; (3) technologic applications: oceanographic research, development and operations.	Primarily a matter of identification of longrun goals and objectives, then a question of identifying most economical and acceptable methods.
Federal aid to State and local governments.	(1) Expansion of existing program grants; (2) initiation of new grant programs (e.g. environment improvement); and (3) block grants, with few if any Federal "strings."	(1) The extent to which the States are to determine the areas to which they allocate Federal funds; (2) if the determination remains at the Federal level, the choice among program.
Aid to defense workers, companies, communities, and veterans.	(1) Rely on existing welfare programs and aggregate demand measures; and (2) institute specific adjustment and benefit programs.	(1) The extent to which defense companies, their workers, and communities, should be treated more generously than others affected by economic dislocation; (2) the desirability of World War II type of veterans' benefits, in view of recent expansion in education, training, and social services.

an important impact on income redistribution. It would also constitute a decision to emphasize consumption at the expense of investment, insofar as the lower income groups spend an above-average share of their income for current consumption items and save proportionately less.⁷⁰

Conversely, if major attention were given to increasing tax incentives to business investment, this too would be more than a short-term policy to offset the deflationary impact of the military cutback; such action would also serve to reduce or slow down the rate of growth of the public sector and, also, to favor investment and a more rapid long-term rate of economic growth at the expense of current consumption and a quick increase in consumer living standards.

Similarly the institution of a negative income tax would constitute a rather fundamental change in the role of the Federal Government in relation to individual citizens, above and beyond any reduction in the government's cash take from the economy. Perhaps, an across-the-board reduction in income tax rates would be most neutral in terms of these other considerations: It would mean foregoing many of the other economic policy objectives; yet, its relative simplicity and neutrality would tend to shorten substantially the lead times involved in preparing detailed Executive Branch recommendations and in obtaining congressional approval.

2. *Monetary and Financial Policies.*—If there is any lesson to be learned from recent experience, it is the need to take prompt action to offset the economic impacts of large and abrupt shifts in military demand. The key question that would be faced is the appropriate mix of monetary and fiscal policies, such that

⁷⁰ For a more general analysis along these lines, see U.S. Congress, Joint Economic Committee, *U.S. Economic Growth to 1975: Potentials and Problems*, Washington, U.S. Government Printing Office, 1966, pp. 31-32.

they independently do not overcompensate nor is the Nation witness to the performance of an act of "After you, Alphonse," "No, after you, Gaston."

3. *Rapid Expansions in Government Programs.*—Important policy choices will have to be made both within as well as between the major categories of post-Vietnam economic adjustment actions. Certainly, tax reduction and government expenditure increases represent alternative routes. The choices are not likely to be either-or ones but some combination of the two. Hence, the public sector is not likely to contract by the full amount of the military cutback (which would be the result of primary reliance on tax reduction) but some tendency in that direction would result from most of the likely tradeoffs between tax reduction and government spending increases.

Within the expenditure category, there are various programs which may be selected. Liberalized unemployment compensation, public assistance, and similar income-maintenance types of transfer payments might be among the actions most quickly implemented. However, an array of government purchase type programs is also available and will compete for funding.

Of necessity, the latter will be programs already underway and for which expenditures can be increased rapidly. For example, the backlog of authorized civil public works is substantial. It is estimated that, as of June 30, 1968, planning will be complete on projects totalling \$3.1 billion, for which construction contracts could be awarded promptly. For another \$5.9 billion of projects, planning would be underway, but not completed.⁸⁰

Another category of potential expenditure increases would be for those programs using resources similar to those released by the military cutback. Expansions in civilian space exploration, such as manned exploration of nearby planets, and completion of development of a civilian supersonic transport aircraft immediately come to mind.

4. *Long Run Expansions in Government Programs.*—The funds which would be made available from a reduction in military spending in Vietnam could be used for a variety of government programs, the expansion of which might take considerably longer than either transfer payments or ongoing construction projects.

In this category of possible adjustment actions are three major types of programs: (1) those primarily in the nature of investment in people, such as education and training; (2) those designed primarily to improve the physical environment, such as air pollution control; and (3) those which most readily apply the advanced technology of military contractors, such as oceanographic research and development.

Of course, these three groups are not entirely mutually exclusive. The systems approach developed in defense and space programs may well have important applications in education or urban redevelopment programs; improvements in the physical environment may also increase human productivity, etc. The kinds of public policy choices to be made here primarily are a matter of identifying and selecting among long-run goals and objectives, a consideration which current budgeting and other resource-allocation mechanisms in the public sector do not as yet come to grips with.

5. *Federal Aid to State and Local Governments.*—Were the short-term post-Vietnam adjustment efforts to emphasize expansion in direct Federal operations, such action might effectively result in the inability of the Federal Government to embark upon the block grant, tax sharing or related long-term efforts which have been proposed to aid state and local governments in their fiscal problems.

Several key policy issues are involved here. To what extent should the Federal Government, rather than the States, determine the specific program areas to which state and local governments allocate Federal funds? Either expanding existing "tied" program-specific grants or embarking upon new ones would maintain the influence of the Federal government in this regard. In contrast, the proposals for block grants would have rather few strings attached to the Federal aid. Tax sharing and tax credit proposals involve less if any Federal determination as to how the Federal aid is to be spent by the recipient governmental units.

On the other hand, if program grants are continued to be relied upon, decisions at the Federal level will then have to be made as to which program areas are to be favored.

⁸⁰ *Budget of the United States, Special Analyses, Fiscal Year 1968, 1967, p. 76.*

6. *Aid to Defense Areas and Veterans.*—The last category of adjustment actions mentioned in the Economic Report was aid to veterans and to the workers, companies, and communities involved in defense work. To some extent, the more general measures discussed above would provide help to those directly and adversely affected by the economic consequences of a military cutback.

However, certain special actions are to be expected. Certainly there is ample precedence for generous assistance to disabled war veterans and to the dependents of those who lost their lives in the conflict. In addition, a Vietnam "GI Bill" would provide assistance for a rapid and successful transition to civilian life for returning servicemen generally.

The question then remains as to the extent of specific aid to the portion of the civilian economy directly affected by a reduction in defense production. Two factors tend to limit pressures from this sector. First of all, as pointed out earlier, it is likely that a high level of military spending—perhaps \$50 billion a year—will be maintained after a military cutback. In addition, so much of the expansion in Vietnam requirements was met by production of civilian-oriented industries which should experience relatively minor difficulties if aggregate demand is maintained in the economy as a whole.

Certainly, the choices among the six adjustment routes analyzed here may be neither easy nor their implementation quick. Nevertheless, the official attention to the basic problem of post-Vietnam economic adjustment during the continuation of active hostilities is an important sign in itself.

C. Adjusting to Changes in Military Spending: Further Escalation.

The possibility of substantial further increases in U.S. military spending, either in Vietnam or elsewhere, needs to be acknowledged. There is little indication, in the data available to date, that any slow down in military spending is imminent. It recently has been estimated by the Deputy Assistant Secretary of Defense for Procurement that defense procurement orders to private industry will increase \$7 billion from fiscal 1966 to a peak of \$45 billion in the fiscal year 1967.²¹

The \$45 billion estimate also indicates that the Pentagon's rate of placing orders with domestic industry will accelerate in the remaining months of the current fiscal year, from an average of \$3.2 billion during each of the first eight months to an average of about \$4.0 billion during March-June 1967. However, the traditional tendency to concentrate government procurement in the latter part of the fiscal year (so-called "June buying") obscures the underlying trend.

Should another major expansion occur in U.S. military spending once again it would be important to analyze accurately the domestic economic impact and to take offsetting economic policy measures promptly.

VI. SUMMARY

An evaluation of U.S. expenditures for Vietnam and their economic impacts must of necessity be based upon a review of the events in South Vietnam itself and of the changing nature of the U.S. involvement there. From 1954 through early 1963, the U.S. role was that of providing relatively minor amounts of training and military advisory assistance. Fewer than 1,000 American troops were involved.

Beginning in November 1963, with the overthrow of the Diem government, the extent of the U.S. commitment increased, but quite slowly at first. By the end of 1964, the total of American troops stationed in South Vietnam was 23,300. A significant change in the nature of the conflict occurred in 1965, the intensification of infiltration of arms and personnel into South Vietnam from North Vietnam. The buildup of U.S. troops there accelerated rapidly, reaching 184,314 at year end. According to the Pentagon, the U.S. involvement was necessary in order to blunt the Vietcong monsoon drive of 1965 which was attempting to dismember South Vietnam.

By early 1966, American forces apparently were conducting the bulk of the offensive "search and destroy" military actions against the Vietcong. The South

²¹ "Defense Buying Bill to Climb to \$45 Billion, Up \$7 Billion, in Fiscal '67, Official Predicts," *Wall Street Journal*, April 13, 1967.

Vietnamese were primarily responsible for the more passive missions, such as pacification and defense of Government centers. Total American troops in South Vietnam exceeded 400,000 by the end of 1966.

In retrospect, it appears that the U.S. role in Vietnam changed from support and advisory to active combat when the South Vietnamese no longer could defend themselves successfully against the combined onslaught of the Vietcong and massive infiltration of North Vietnamese equipment and manpower.

It is futile to speculate as to anyone's ability to have forecast these developments prior to their occurrence. However, it is necessary to note that the uncertain nature of future developments in Vietnam continually clouded the public and private analyses of their enfolding impact on the Treasury and on the American economy.

The evolution of the U.S. role in Vietnam could scarcely be inferred from the day-to-day statements of Administration spokesmen such as Secretary McNamara. On various occasions in 1963-64 he stated that the war was to be fought by Vietnamese and not U.S. troops. In 1965, after U.S. troops were in combat, he stated that the South Vietnamese would bear the brunt of the fighting. The purpose here is not to criticize the inability to make accurate forecasts under extremely difficult conditions, but to emphasize the great uncertainty that existed in evaluating the impact on our domestic economy of the expanding U.S. commitment in Vietnam.

From the point of view of demands on the resources of the American economy, the Vietnam war really had its initial impact in the fiscal year 1966, the 12-month period July 1, 1965 to June 30, 1966. Prior to that time, the Budget Bureau estimated that the additional costs of Vietnam were \$100 million or less a year, a rather insignificant factor in a \$50 billion military budget or a \$700 billion economy.

The January 1966 Budget Message, in contrast, estimated that the Vietnam war would require \$14 billion of appropriations in fiscal 1966 and \$4.4 billion of expenditures. It appeared at the time, at least to many observers, that the Nation could afford to wage a two-front war without raising taxes, the domestic war on poverty and the war in Vietnam. That theme was clearly enunciated in the Budget Message and in the President's January 1966 Economic Report. In the later document, he stated that, "The fiscal program I recommend for 1966 aims at full employment without inflation" and that "this budget provides . . . for the maintenance of basic price stability."

In retrospect, things did not work out so well. Although the unemployment rate declined below 4 percent, the year 1966 witnessed the most rapid period of price inflation since the Korean War. The basic explanation would appear to be that—despite the assurances in the Economic Report—the increases in government civilian and military demand, coupled with the continued expansion in business expenditures for new plant and equipment, exceeded the capability of the economy to supply goods and services at then current prices. Several factors help to explain the circumstances. One factor was the underestimate in defense spending. The January 1966 budget projected the cost of Vietnam at \$10 billion in the fiscal year 1967 and the current estimate is almost double that.

Another factor is a bit more sophisticated. It relates to the lack of understanding of how a military buildup affects the economy. The key point is that, under our private enterprise system, the great bulk of military production is carried on in the private sector of the economy.

As a result, when there is a large expansion in military orders, as occurred in fiscal 1966, the immediate impact is *not* felt in the government budget. The initial impact—in terms of demand for labor, materials, and resources generally—is felt by the government contractors in the *private* sector. Hence, particularly during the early stage of a military buildup, we have to look at the private sector to see the expansionary effects. This is hardly a new phenomenon. This timing relationship was the factor that contributed so greatly to the inflation that accompanied the first year of the Korean mobilization.

By just looking at the Government's budget during fiscal year 1951, it seemed that the public sector was following a policy of fiscal restraint. Policy officials generally overlooked the almost doubling in the volume of defense orders to private industry during that same period. Unfortunately, the same mistake

was repeated during the first year of the Vietnam buildup. The most rapid period of expansion in military contracts to private industry occurred in 1966; so did the most rapid rate of price inflation in recent years. But that was the period when the Nation and particularly the Administration's economists were still congratulating themselves on the success of the 1964 tax cut and little need was felt, at least officially, for greater fiscal restraint.

To some extent, the inflationary pressures of the Vietnam buildup were accentuated by a rather liberal monetary policy in 1965, some of the results of which were continued to be felt in 1966 (the money supply rose by 6.2 percent from April 1965 to April 1966, a rate considerably above recent prior experience). Beginning in December 1965, the Federal Reserve Board undertook a series of steps to tighten the availability of credit. By April 1966, the steep rise in the money stock was halted and a slight decline occurred through the remainder of 1966.

Some positive impacts of governmental economic policy during this period also need to be acknowledged. The Nation achieved a large and rapid shift of resources from civilian uses to military programs. Direct controls over prices, wages, and materials generally were avoided. Moreover, economic growth and real improvement in the living standard of the average American continued despite the defense spending increases and inflation.

In a sense, this post mortem is too late. There is little that can be done about the 1966-induced inflation at this late stage. The demand-pull inflationary pressures of 1966 seem to have run their course. We do have a legacy of cost-push inflationary pressures which are likely to plague us later in 1967, particularly as major collective bargaining agreements come up for renewal.

However, it is quite likely that in the near future the Nation may once again find itself in a situation when aggregate economic and fiscal policy measures fail to take proper account of the timing of the economic impact of government spending, especially for goods produced in the private sector. If that turns out to be the case, avoidable inflation or recession may occur once again.

Should another major escalation occur in the level of the U.S. commitment in Southeast Asia, it would be important to *promptly* develop the *restraining* fiscal measures needed to offset the inflationary impacts.

Conversely, should peace come to Vietnam it would be essential to *promptly* put into action the *expansionary* fiscal measures needed to offset the immediate deflationary effects of a defense cutback. Most authorities are agreed as to the capability of the economy to successfully adjust to a defense cutback (or an expansion). The concern mainly relates to our political willingness and capability to act promptly enough.

STATISTICAL APPENDIX

AGGREGATE MEASURES OF U.S. MILITARY SPENDING

1. Measures of U.S. Military Spending, Billions of Dollars at Annual Rates.
2. Measures of U.S. Military Spending, Percentage Change from Previous Quarter.

DETAIL ON U.S. MILITARY SPENDING

3. Detailed Measures of U.S. Military Spending, Billions of Dollars at Annual Rates.
4. Detailed Measures of U.S. Military Spending, Percentage Change from Previous Quarter.

GEOGRAPHIC MEASURES OF U.S. MILITARY ACTIVITIES

5. Distribution of Defense Employment and Labor Force by State.
6. Defense Dependency by State.
7. Percentage Distribution of Surveyed Defense Employment by State and Product Group.
8. Changes in Defense Generated Employment by State.
9. Surveyed Employment Generated by Defense Subcontracts by State of Performance.

APPENDIX TABLE 1.—Measures of U.S. military spending

[Billions of dollars at annual rates]

Calendar year and quarter	Defense obligations		Military contract awards		Defense expenditures	Cash national defense	National defense purchases, seasonally adjusted		Defense products			
	Actual	Seasonally adjusted	Actual	Seasonally adjusted			Actual	Deflated	Seasonally adjusted			Unfilled orders
									New orders	Total inventories	Shipments	
1964:												
1st quarter.....	52.0	55.2	26.1	25.7	49.2	52.5	50.1	44.9	29.0	5.5	26.0	19.3
2d quarter.....	61.3	54.8	30.5	27.4	56.8	60.1	51.6	46.2	28.7	5.4	26.4	19.7
3d quarter.....	55.0	53.3	24.2	28.1	43.1	46.8	49.8	43.0	28.5	5.4	25.6	20.3
4th quarter.....	51.8	53.3	20.4	22.5	48.1	51.5	48.5	42.4	24.3	5.5	25.9	20.2
Total.....	55.0	54.2	25.3	25.9	49.3	52.7	50.0	44.4	27.1	5.6	26.0	20.1
1965:												
1st quarter.....	48.2	51.0	22.5	21.3	46.8	49.9	48.2	42.1	29.1	5.6	26.8	20.2
2d quarter.....	62.3	55.0	34.0	29.6	51.6	54.8	49.1	42.8	33.1	5.8	27.4	21.5
3d quarter.....	60.6	59.0	27.9	31.7	48.6	51.4	50.7	43.8	35.5	6.0	28.3	22.7
4th quarter.....	62.1	62.1	30.1	32.7	54.1	56.9	52.5	44.5	33.5	6.2	29.3	24.5
Total.....	58.3	56.8	28.6	28.8	50.3	53.3	50.1	43.3	32.5	6.4	28.0	24.6
1966:												
1st quarter.....	60.5	64.6	30.1	32.9	56.4	59.5	54.6	45.8	39.2	6.6	31.3	25.9
2d quarter.....	86.4	75.9	43.0	38.8	62.4	65.8	57.1	47.8	39.6	7.2	32.8	27.6
3d quarter.....	77.0	75.2	40.2	41.1	63.4	66.7	62.0	51.4	45.3	7.7	34.2	29.7
4th quarter.....	68.9	72.3	33.0	39.1	65.8	68.7	65.5	54.2	37.6	8.4	36.6	31.5
Total.....	73.2	72.0	37.7	38.0	62.0	65.2	60.0	50.0	40.4	7.5	33.2	31.8

Sources: Departments of Commerce, Treasury, and Defense.

APPENDIX TABLE 2.—Measures of U.S. military spending

[Percentage change from previous quarter, at annual rates]

Calendar year and quarter	Defense obligations		Military contract awards		Defense expenditures	Cash national defense	National defense purchases, seasonally adjusted		Defense products			
	Actual	Seasonally adjusted	Actual	Seasonally adjusted			Actual	Deflated	Seasonally adjusted			Unfilled orders
									New orders	Total inventories	Shipments	
1964:												
1st quarter.....	-3.8	+1.6	+21.9	+10.7	-2.3	-2.0	-4	-2.8	+34.9	0	+4	0
2d quarter.....	+17.9	-7	+18.9	+6.6	+15.4	+14.5	+2.9	+2.9	-1.0	-1.8	+1.5	+2.0
3d quarter.....	-9.8	-2.7	-20.6	-2.5	-24.1	-22.1	-3.4	-4.9	-8	0	-2.9	+3.0
4th quarter.....	-5.8	0	-15.7	-19.9	+11.6	+10.0	-2.6	-3.4	-14.7	+1.8	+1.1	-9
Total 1.....	+3.2	+2.8	-5.8	-3.7	+6	-1.4	-1.5	-5.5	+3.0	+1.8	+3.2	+3.6
1965:												
1st quarter.....	-6.9	-4.3	+10.3	-5.3	-2.7	-3.1	-6	-7	+19.8	+1.8	+3.5	0
2d quarter.....	+29.3	+7.8	+51.1	+38.9	+10.2	+9.9	+1.9	+1.6	+13.7	+3.5	+2.2	+6.4
3d quarter.....	-2.6	+7.3	-17.9	+7.1	-5.8	-6.2	+3.2	+2.3	+7.2	+3.4	+3.3	+5.5
4th quarter.....	+2.5	+5.3	+7.9	+3.2	+11.3	+10.7	+3.5	+1.6	-5.6	+3.3	+3.6	+7.9
Total 1.....	+6.0	+4.8	+13.0	+11.2	+2.0	+1.1	+2	-2.4	+19.9	+14.3	+7.6	+22.3
1966:												
1st quarter.....	-2.6	+4.0	0	+6	+4.2	+4.6	+4.0	+2.9	+17.0	+6.4	+6.8	+5.7
2d quarter.....	+42.8	+17.5	+59.5	+17.9	+10.6	+10.6	+4.5	+4.4	+1.0	+9.0	+4.8	+6.5
3d quarter.....	-10.9	-9	-16.2	+5.9	+1.6	+1.4	+8.6	+7.5	+14.4	+6.9	+4.2	+7.5
4th quarter.....	-10.5	-3.9	-17.9	-4.9	+3.8	+3.0	+5.6	+5.4	-17.0	+9.1	+7.0	+6.1
Total 1.....	+25.7	+26.1	+31.8	+31.9	+23.3	+22.3	+19.8	+15.5	+24.3	+17.2	+18.6	+29.3

1 Percent increase for total is increase from previous year.

Source: Table 1.

APPENDIX TABLE 3.—Detailed measures of U.S. military spending

[Billions of dollars at annual rates]

Calendar year and quarter	Defense obligations							Defense expenditures				
	Operations		Procurement			R.D.T. & E.	Military construction	Military personnel	Operations mainte- nance	Procure- ment	R.D.T. & E.	Military construc- tion
	Military personnel	Mainte- nance	Aircraft	Ordnance and vehicles	Total							
1964:												
1st quarter	14.4	12.5	8.3	1.7	15.0	6.2	2.2	13.9	11.4	14.1	6.6	.8
2d quarter	14.9	13.9	8.1	2.3	19.7	8.1	1.7	15.3	13.1	17.6	7.3	1.0
3d quarter	15.2	15.2	4.5	1.5	13.1	9.3	1.0	14.6	11.2	11.2	6.7	1.0
4th quarter	14.7	13.6	6.7	2.1	14.6	5.7	1.6	14.8	12.2	13.7	6.4	1.1
Total	14.8	13.8	6.9	1.9	15.6	7.3	1.6	14.6	12.0	14.1	6.8	1.0
1965:												
1st quarter	14.8	13.0	4.9	1.3	11.1	6.0	1.5	14.4	11.7	11.5	5.8	.8
2d quarter	15.2	15.3	8.4	4.1	19.8	7.0	1.9	15.4	14.3	11.0	6.1	1.1
3d quarter	16.3	16.9	7.1	4.7	16.5	8.8	.8	15.0	12.0	13.4	6.4	1.1
4th quarter	16.7	16.3	7.1	5.5	19.1	6.2	1.9	16.8	15.0	13.8	6.3	1.4
Total	15.7	15.4	6.9	3.9	16.6	7.0	1.5	15.4	13.2	12.4	6.1	1.1
1966:												
1st quarter	17.3	16.0	7.3	4.8	17.5	6.1	1.7	16.6	14.2	14.6	6.3	1.2
2d quarter	18.7	19.7	12.9	10.8	33.4	7.9	3.8	18.8	17.2	15.5	6.0	1.6
3d quarter	20.0	21.7	10.5	4.3	21.5	10.9	1.5	18.2	17.7	17.6	7.6	1.6
4th quarter	19.9	18.9	8.4	5.8	21.1	6.4	1.4	19.2	17.1	17.1	7.1	1.8
Total	19.0	19.1	9.8	6.5	23.6	7.8	2.9	18.1	16.5	16.1	6.7	2.0

Source: Department of Defense.

APPENDIX TABLE 4.—Detailed measures of U.S. military spending

[Percentage change from previous quarter, at annual rates]

Calendar year and quarter	Defense obligations						Defense expenditures					
	Operations		Procurement			R.D.T. & E.	Military construc- tion	Military personnel	Operations mainte- nance	Procure- ment	R.D.T. & E.	Military construc- tion
	Military personnel	Mainte- nance	Aircraft	Ordnance and vehicles	Total							
<i>1964</i>												
1st quarter.....	- 7	-3.1	+38.3	- 5.0	-10.7	-10.1	+120.0	+2.0	-2.0	-5.4	-5.6	-27.2
2d quarter.....	+3.5	+11.2	-2.4	+35.3	+31.3	+30.6	-22.7	+10.1	+14.1	+24.8	+10.6	+25.0
3d quarter.....	+2.0	+9.4	-44.4	-34.8	-33.5	+14.8	-41.2	-4.6	-14.5	-36.4	-8.3	0
4th quarter.....	-3.2	-10.5	+48.4	+40.0	+11.5	-38.7	+60.0	+1.4	+8.9	+22.3	+4.2	+10.0
Total ¹	+8.0	+5.1	+9.5	-5.0	-4.8	-1.4	+23.0	+16.5	0	-13.5	-2.8	-27.2
<i>1965</i>												
1st quarter.....	+ 7	-4.4	-26.8	-38.1	-23.9	+5.3	-6.2	-2.7	-4.1	-16.0	-9.1	-27.2
2d quarter.....	+2.9	+17.7	+71.4	+215.4	+78.4	+16.6	+26.6	+6.9	+22.2	-4.4	+5.2	+37.7
3d quarter.....	+7.2	+10.5	-15.5	+14.6	-16.7	+25.7	-57.8	-2.6	-16	+30.8	+4.9	0
4th quarter.....	+2.4	-3.5	0	+17.0	+15.6	-29.5	+137.5	+12.0	+25.0	+2.9	-1.6	+27.2
Total ¹	+6.0	+11.5	0	+105.3	+6	-4.1	-6.2	+5.4	+10.0	-12.0	-10.3	+10.0
<i>1966</i>												
1st quarter.....	+3.6	-1.8	+2.8	-12.2	-8.4	-1.6	-10.5	-1.2	-4.1	+5.8	0	-14.3
2d quarter.....	+8.2	+23.1	+79.4	+125.0	+90.8	+29.5	+123.5	+13.3	+21.1	+6.2	-4.7	+33.3
3d quarter.....	+16.0	+10.2	-19.1	-60.1	-35.6	+39.9	-60.5	-3.1	+2.9	+13.5	+26.6	0
4th quarter.....	- 5	-12.9	-20.8	+34.9	-1.8	+41.3	-6.1	+5.5	-3.4	-2.8	+6.6	+12.5
Total.....	+21.0	+24.0	+42.0	+66.6	+42.2	+11.4	+93.3	+17.5	+25.0	+29.8	+9.8	+81.8

¹ Percent change in total from previous year.

Source: Table 3.

APPENDIX TABLE 5.—*Distribution of defense employment and labor force by State, June 1966*

State ranking ¹	Percentage distribution			Index of relative concentration		Number (in thousands)	
	Defense-generated employment ²	Labor force	Military personnel	Defense-generated employment (2) ÷ (3)	Defense-generated employment and military personnel ³	Defense-generated employment	Military personnel
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. California.....	17.0	9.5	13.5	1.8	1.6	405.0	246.6
2. Texas.....	5.8	5.1	11.3	1.1	1.6	139.6	206.9
3. New York.....	5.7	10.1	1.8	.6	.4	138.0	33.2
4. Pennsylvania.....	5.4	6.0	.8	.9	.6	129.8	14.9
5. Virginia.....	5.2	2.1	3.6	2.4	2.1	125.6	66.3
6. Ohio.....	3.7	5.3	1.1	.7	.5	88.7	19.8
7. Maryland.....	3.6	1.7	2.6	2.1	1.8	85.3	47.5
8. Massachusetts.....	3.6	3.1	1.5	1.1	.8	85.2	28.2
9. New Jersey.....	3.4	3.5	2.7	1.0	.9	80.3	48.8
10. Connecticut.....	3.3	1.6	.2	2.1	1.3	78.9	4.2
11. Florida.....	3.0	2.9	3.8	1.0	1.2	73.3	69.2
12. Missouri.....	2.9	2.5	2.1	1.2	1.0	69.8	38.9
13. Georgia.....	2.9	2.1	6.0	1.4	1.9	69.2	109.4
14. Illinois.....	2.5	6.0	3.3	.4	.5	60.3	60.3
15. Washington.....	2.2	1.5	2.6	1.5	1.4	51.5	47.6
16. Alabama.....	2.0	1.6	1.7	1.2	1.2	48.1	32.1
17. Indiana.....	1.8	2.6	.5	.7	.5	43.6	9.8
18. Oklahoma.....	1.6	1.2	2.1	1.3	1.5	38.6	37.9
19. Michigan.....	1.5	4.1	1.0	.4	.3	36.0	18.3
20. Utah.....	1.5	.5	.2	3.0	2.0	35.7	4.5
21. District of Columbia.....	1.4	.5	3.9	2.8	4.0	32.8	70.5
22. Tennessee.....	1.3	2.0	1.2	.7	.6	29.9	21.9
23. North Carolina.....	1.2	2.5	5.1	.5	1.1	29.1	92.7
24. Colorado.....	1.1	1.0	2.2	1.1	1.5	25.6	40.5
25. Kansas.....	1.1	1.1	1.9	1.0	1.3	25.6	34.8
26. Mississippi.....	1.0	1.0	1.5	1.0	1.2	23.9	28.0
27. South Carolina.....	1.0	1.3	3.3	.8	1.5	23.2	60.2
28. Hawaii.....	1.0	.3	1.6	3.3	3.0	22.8	28.7
29. Minnesota.....	.9	2.0	.3	.5	.3	21.5	5.1
30. Arizona.....	.8	.7	1.1	1.1	1.4	19.3	20.7
31. Kentucky.....	.8	1.4	2.8	.5	1.1	16.7	51.9
32. New Mexico.....	.6	.5	1.0	1.2	1.6	15.1	18.7
33. Louisiana.....	.6	1.6	2.2	.4	.8	14.6	40.1
34. Wisconsin.....	.6	2.3	.2	.3	.2	14.6	3.4
35. Rhode Island.....	.6	.5	.5	1.2	1.2	13.8	9.5
36. New Hampshire.....	.6	.3	.3	2.0	1.3	13.5	5.2
37. Iowa.....	.4	1.5	1.1	.3	.2	9.9	1.6
38. Alaska.....	.4	.1	1.6	4.0	9.0	8.8	29.2
39. Arkansas.....	.3	.9	.5	.3	.4	8.1	9.2
40. Maine.....	.3	.5	.5	.6	.8	7.2	10.8
41. Oregon.....	.3	1.1	.2	.3	.2	6.6	3.6
42. Nebraska.....	.3	.8	.7	.4	.6	6.5	12.4
43. West Virginia.....	.3	.3	.0	.4	.2	6.4	.5
44. North Dakota.....	.2	.3	.7	.7	1.3	4.2	12.2
45. Nevada.....	.1	.2	.3	.5	1.0	3.3	6.3
46. Delaware.....	.1	.3	.4	.3	.7	3.0	7.1
47. Vermont.....	.1	.2	.0	.5	.5	2.6	.3
48. South Dakota.....	.1	.3	.3	.3	.7	1.9	6.2
49. Montana.....	.1	.4	.5	.3	.9	1.7	9.4
50. Wyoming.....	.0	.2	.2	0	.5	1.3	4.0
51. Idaho.....	.0	.3	.2	0	.3	.9	4.0
Undistributed.....	3.9		2.2			90.4	39.4
Total.....	100.0	100.0	100.0			2,387.3	1,832.5

¹ Arranged in descending order based on State's percent of defense-generated employment.² Includes defense-generated employment in prime plants and civil service employment at DOD installations.³ Percent distribution of total of defense-generated employment (col. 7) plus military personnel (col. 8) divided by percent distribution of total of labor force (col. 3) plus military personnel (col. 9).

Source: U.S. Department of Defense, Office of Assistant Secretary, Systems Analysis (Economics).

APPENDIX TABLE 6.—Defense dependency by State, June 1966

State ranking ¹	Work force (in thousands)	Defense- generated employment (in thousands)	Percent defense dependency 3+2
(1)	(2)	(3)	(4)
1. Alaska.....	90.4	8.8	9.7
2. Utah.....	390.5	35.7	9.1
3. Hawaii.....	273.3	22.8	8.3
4. District of Columbia.....	396.0	32.8	8.3
5. Virginia.....	1,638.6	125.6	7.7
6. Maryland.....	1,307.3	85.3	6.5
7. Connecticut.....	1,236.8	78.9	6.4
8. California.....	7,459.0	405.0	5.4
9. New Hampshire.....	274.0	13.5	4.9
10. Washington.....	1,217.7	51.5	4.2
11. New Mexico.....	357.4	15.1	4.2
12. Georgia.....	1,684.9	69.2	4.1
13. Oklahoma.....	961.2	38.6	4.0
14. Alabama.....	1,273.1	48.1	3.8
15. Rhode Island.....	372.3	13.8	3.7
16. Missouri.....	1,965.9	6.98	3.6
17. Texas.....	4,024.6	139.6	3.5
18. Massachusetts.....	2,432.1	85.2	3.5
19. Arizona.....	544.4	19.3	3.5
20. Colorado.....	778.8	25.6	3.3
21. Florida.....	2,264.3	73.3	3.2
22. Kansas.....	834.6	25.6	3.1
23. Mississippi.....	786.3	23.9	3.0
24. New Jersey.....	2,753.7	80.3	2.9
25. Pennsylvania.....	4,747.3	129.8	2.7
26. South Carolina.....	998.8	23.2	2.3
27. Indiana.....	2,019.5	43.6	2.2
28. Ohio.....	4,153.3	88.7	2.1
29. Tennessee.....	1,584.5	29.9	1.9
30. Maine.....	375.4	7.2	1.9
31. New York.....	7,965.0	138.0	1.7
32. Nevada.....	189.9	3.3	1.7
33. North Dakota.....	267.7	4.2	1.6
34. Vermont.....	166.5	2.6	1.6
35. Kentucky.....	1,126.2	16.7	1.5
36. North Carolina.....	1,994.0	29.1	1.5
37. Minnesota.....	1,591.3	21.5	1.4
38. Illinois.....	4,730.0	60.3	1.3
39. Delaware.....	226.7	3.0	1.3
40. Arkansas.....	685.4	8.1	1.2
41. Michigan.....	3,187.9	36.0	1.1
42. Louisiana.....	1,302.5	14.6	1.1
43. Nebraska.....	650.0	6.5	1.0
44. West Virginia.....	620.9	6.4	1.0
45. Wyoming.....	144.6	1.3	.9
46. Oregon.....	826.4	6.6	.8
47. Iowa.....	1,194.9	9.9	.8
48. Wisconsin.....	1,787.5	14.6	.8
49. South Dakota.....	262.9	1.9	.7
50. Montana.....	263.7	1.7	.6
51. Idaho.....	277.7	.9	.3
Undistributed.....		90.4	
Total United States.....	78,658.0	2,387.3	
U.S. average.....			3.0

¹ Arranged in descending order based on percent of defense dependency.

Source: U.S. Department of Defense, Office of Assistant Secretary, Systems Analysis (Economics):

APPENDIX TABLE 7.—Percentage distribution of surveyed defense employment by State and product group, June 1966

Region and States (a)	Defense product groups								Total (j)
	Aircraft (b)	Missile and space (c)	Ships (d)	Vehicles and weapons (e)	Ammuni- tion (f)	Elect. and Comm. (g)	R.D.T & E. (h)	Other (i)	
New England:									
Maine.....			3.8	5.8					0.4
New Hampshire.....						1.4			.4
Vermont.....				10.3					.3
Massachusetts.....	2.4	5.7	9.9	.9		8.4	6.0	15.3	5.1
Rhode Island.....					.6	.4			.2
Connecticut.....	14.2		23.1	7.6	2.9	2.0			7.8
Subtotal.....	16.6	5.7	36.8	24.6	3.5	12.1	6.0	15.3	14.1
Middle Atlantic:									
New York.....	8.2			.9	2.5	14.0	8.7	4.2	7.2
New Jersey.....	1.7	3.2	.9		.6	7.0	.9	1.7	3.9
Pennsylvania.....	3.8	1.0		6.7	4.6	8.3		.8	3.6
Subtotal.....	13.8	4.1	.0	7.6	7.7	29.3	9.6	6.7	14.7
East north-central:									
Ohio.....	8.4		.8	7.6	2.5	.4		2.5	3.6
Indiana.....	3.2	.6		4.5	9.6	1.6			2.5
Illinois.....	.5				3.9	2.0	3.5	10.2	1.2
Michigan.....	.5	1.3	1.7	22.9		2.0			1.6
Wisconsin.....			1.2		3.5	1.0			.6
Subtotal.....	12.6	1.0	3.7	35.0	19.5	7.0	3.5	12.6	9.5
West north-central:									
Minnesota.....				9.4	8.6	3.3			1.9
Iowa.....					4.1	2.2			.9
Missouri.....	10.4	.7			12.8	.6			5.1
Nebraska.....					1.8				.2
Kansas.....	4.				4.5				2.2
Subtotal.....	15.3	.7	0	9.4	31.8	6.1	0	0	10.3

South Atlantic:										
Delaware.....	.2									.1
Maryland.....	.1	6.8	2.3		.3	6.5				2.8
District of Columbia.....										.0
Virginia.....		3.7	25.8			1.1	10.4			3.0
West Virginia.....		.7		11.2						.4
North Carolina.....		.2				2.7		4.2		.8
Georgia.....	7.1				1.5					2.6
Florida.....	3.0	7.1				1.6	1.7	9.3		2.7
Subtotal.....	10.4	18.5	28.1	11.2	1.8	11.9	12.1	13.5		12.4
East south-central:										
Tennessee.....	1.0	.7			11.8			4.2		1.5
Alabama.....	1.7	.7	1.8		.8					.9
Mississippi.....	.2		8.7							.8
Subtotal.....	2.9	1.4	10.5	0	12.7	0	0	4.2		3.3
West south-central:										
Arkansas.....					.8			1.7		.1
Louisiana.....	.4		1.5		3.4					.5
Oklahoma.....	1.1	.4				.1				.5
Texas.....	10.6	.8			9.8	3.7		4.2		5.8
Subtotal.....	12.1	1.2	1.6	0	14.0	3.8	0	5.9		6.8
Mountain:										
Colorado.....	.3	4.3								.8
Arizona.....	.7	2.3			.4	1.0				.9
Utah.....		5.1								.8
Subtotal.....	1.0	11.6	0	0	.4	1.0	0	0		2.6
Pacific:										
Washington.....	.5	12.4	7.3	.9						2.7
Oregon.....			2.3							.2
California.....	15.1	42.6	8.9	11.2	8.5	28.6	68.7	41.5		23.0
Subtotal.....	15.6	55.0	18.4	12.1	8.5	28.6	68.7	41.5		26.0
U.S. total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		100.0
Surveyed Defense employment (in thousands).....	304.5	136.4	65.5	22.3	71.1	228.1	11.5	11.8		851.2

NOTE.—May not add due to rounding.

Source: U.S. Department of Defense, Office of Assistant Secretary, Systems Analysis (Economics).

APPENDIX TABLE 8.—Changes in defense-generated employment by State, June 1965–June 1966

[In thousands]

State	Defense-generated employment ¹		Net changes in employment June 1965–June 1966				
	June 1965	June 1966	Defense civilian employment			Military personnel assigned	Total defense-generated and military (5)+(6)
			Industrial plants	DOD installations	Total (3)+(4)		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Alabama.....	47.2	48.1	1.0	-.1	.9	8.1	9.0
Alaska.....	8.8	8.8	-.3	.3	0	-1.7	-1.7
Arizona.....	14.9	19.3	3.6	.8	4.4	-.5	3.9
Arkansas.....	5.4	8.1	2.2	.5	2.7	-.7	2.0
California ²	349.1	405.0	36.4	19.5	55.9	33.7	89.6
Colorado.....	24.2	25.6	.2	1.2	1.4	5.1	6.5
Connecticut ²	66.3	78.9	12.1	.5	12.6	.5	13.1
Delaware.....	2.1	3.0	.8	.1	.9	.1	.8
District of Columbia.....	33.2	32.8	-.7	.2	-.5	5.7	5.2
Florida.....	68.2	73.3	2.6	2.5	5.1	.8	4.3
Georgia.....	58.3	69.2	4.6	6.3	10.9	15.4	26.3
Hawaii.....	20.8	22.8	.2	1.8	2.0	11.5	-9.5
Idaho.....	.6	.9	.2	.1	.3	-1.4	-1.1
Illinois ²	47.9	60.4	11.1	1.4	12.5	12.0	25.4
Indiana.....	34.5	43.6	6.7	2.4	9.1	1.3	10.4
Iowa.....	7.3	9.9	2.4	.2	2.6	.2	2.8
Kansas.....	19.2	25.6	5.6	.8	6.4	5.0	11.4
Kentucky.....	13.2	16.7	.3	3.2	3.5	3.0	6.5
Louisiana.....	10.5	14.6	2.9	1.2	4.1	5.8	9.9
Maine.....	5.6	7.2	1.5	.1	1.6	-1.4	.2
Maryland ²	69.3	85.3	11.5	4.5	16.0	8.2	24.2
Massachusetts.....	78.7	85.2	6.4	.1	6.5	-2.3	4.2
Michigan.....	29.7	36.0	5.2	1.1	6.3	-1.6	4.7
Minnesota.....	16.2	21.5	5.1	.2	5.3	-.1	5.2
Mississippi.....	23.2	23.9	-.5	1.2	.7	6.7	7.4
Missouri ²	53.6	69.8	12.7	3.5	16.2	10.3	26.5
Montana.....	1.5	1.7	0	.2	.2	-.1	.1
Nebraska.....	5.1	6.5	1.7	-.3	1.4	-4.0	-2.6
Nevada.....	3.0	3.3	.2	.1	.3	-1.3	-1.0
New Hampshire.....	12.1	13.5	1.1	.3	1.4	-2.5	-1.1
New Jersey ²	67.5	80.3	9.6	3.2	12.8	11.9	24.7
New Mexico.....	15.3	15.1	-1.0	.8	-.2	-2.9	-3.1
New York.....	130.2	138.0	17.0	-9.2	7.8	-1.9	5.9
North Carolina.....	25.9	29.1	2.1	1.1	3.2	5.9	9.1
North Dakota.....	2.7	4.2	1.7	-.2	1.5	-.1	1.4
Ohio.....	80.1	88.7	7.6	1.0	8.6	1.1	9.7
Oklahoma.....	31.2	38.6	1.6	5.8	7.4	3.9	11.3
Oregon.....	5.5	6.6	1.0	.1	1.1	-1.4	-.3
Pennsylvania ²	108.0	129.8	16.8	5.0	21.8	-.7	21.1
Rhode Island.....	13.5	13.8	-.2	.5	.3	2.9	3.2
South Carolina.....	18.7	23.2	2.1	2.4	4.5	10.0	14.5
South Dakota.....	2.1	1.9	-.2	0	-.2	-.4	-.6
Tennessee.....	23.1	29.9	6.3	.5	6.8	3.5	10.3
Texas ²	116.7	139.6	13.0	9.9	22.9	41.8	64.7
Utah.....	28.8	35.7	-.8	7.7	6.9	-.1	6.8
Vermont.....	2.0	2.6	.6	0	.6	0	.6
Virginia ²	112.8	125.5	3.6	9.1	12.7	10.3	23.0
Washington.....	45.9	51.5	3.4	2.2	5.6	1.9	7.5
West Virginia.....	6.0	6.4	.4	0	.4	0	.4
Wisconsin.....	11.6	14.6	2.8	.2	3.0	-.8	2.2
Wyoming.....	1.1	1.3	.2	0	.2	-.6	-.4
Undistributed.....	54.8	90.4	35.6	0	35.6	14.6	50.2
U.S. total.....	2,033.4	2,387.3	259.9	94.0	353.9	190.8	544.7

¹ Defense-generated employment in prime contractor plants and civil service employment at DOD installations.

² 9 States with largest absolute increases, accounting for 52 percent of the 353,900 increase in col. 5.

Source: U.S. Department of Defense, Office of Assistant Secretary, Systems Analysis (Economics).

APPENDIX TABLE 9.—*Surveyed employment generated by defense subcontracts, by State of performance, June 1966*

State ranking	Number (thousands)	Percent	State ranking	Number (thousands)	Percent
1. California.....	37.8	25.9	20. Missouri.....	1.5	1.0
2. New York.....	20.9	14.3	21. Iowa.....	1.1	.8
3. Massachusetts.....	9.4	6.4	22. West Virginia.....	.8	.6
4. New Jersey.....	9.0	6.2	23. Georgia.....	.7	.5
5. Connecticut.....	7.6	5.2	24. Colorado.....	.6	.4
6. Texas.....	6.7	4.6	25. Maine.....	.6	.4
7. Ohio.....	6.4	4.4	26. North Carolina.....	.5	.3
8. Florida.....	5.4	3.7	27. Louisiana.....	.5	.3
9. Kansas.....	4.8	3.3	28. Oklahoma.....	.4	.3
10. Indiana.....	4.7	3.2	29. Alabama.....	.4	.3
11. Pennsylvania.....	4.1	2.8	30. Mississippi.....	.4	.3
12. Tennessee.....	3.9	2.7	31. Vermont.....	.2	.1
13. Michigan.....	3.4	2.3	32. Washington.....	.2	.1
14. Maryland.....	2.9	2.0	33. Wyoming.....	.2	.1
15. Minnesota.....	2.7	1.9	34. Wisconsin.....	.2	.1
16. Arizona.....	2.3	1.6	35. Delaware.....	.1	.1
17. Utah.....	2.2	1.5	Other 15 States.....	0	0
18. Illinois.....	1.8	1.2			
19. Virginia.....	1.6	1.1	Total.....	146.0	100.0

Source: U.S. Department of Defense, Office of Assistant Secretary, Systems Analysis (Economics).

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ECONOMIC EFFECT OF VIETNAM SPENDING

THURSDAY, APRIL 27, 1967

CONGRESS OF THE UNITED STATES,
JOINT ECONOMIC COMMITTEE,
Washington, D.C.

The joint committee met, pursuant to recess, at 10:05 a.m., in room 4200, New Senate Office Building, Hon. William Proxmire (chairman of the joint committee) presiding.

Present: Senators Proxmire, Javits, Miller, and Percy; and Representatives Bolling, Curtis, Rumsfeld, and Brock.

Also present: John R. Stark, executive director; and Daniel J. Edwards, staff economist.

Chairman PROXMIRE. The Joint Economic Committee will come to order. This morning we continue our hearings on the Vietnam war and its impact on the economy. This morning we are considering the "Vietnam Deescalation and Military Manpower Alternatives."

We are delighted to have as our first witness a very distinguished economist, a man I have known for some time. Of course, all of us know of his great reputation—Dr. Wassily Leontief, professor of economics, of Harvard University.

Dr. Leontief?

STATEMENT OF DR. WASSILY LEONTIEF, PROFESSOR OF ECONOMICS, AND DIRECTOR, HARVARD ECONOMIC RESEARCH PROJECT, HARVARD UNIVERSITY

Mr. LEONTIEF. Mr. Chairman, you have asked me a rather straightforward question, and I will attempt to give you a straightforward answer; as straightforward, I might add, as a small research group, which has no access to any privileged information, can give under the circumstances. I don't know whether it is a consolation for me or not to have found out that even on the Hill you don't have always privileged information. Apparently, information does not flow always freely along Pennsylvania Avenue from one end to another.

The question was: "What would the possible implications of de-escalation of military efforts in Vietnam be under a variety of alternative assumptions concerning the allocation of resources which might be and would definitely be released from satisfaction of military needs, if these military needs of procurement were reduced?"

Essentially, what we have to engage in is a cost-benefit analysis, which I suppose is a fashionable word now, and what we try to do is to apply the cost-benefit analysis to the problem of allocating resources between military and civilian uses.

The cost of materiel, military materiel of weapons, all kinds of supplies, of moving with supplies a long distance, of maintaining manpower; military and associated manpower, of course, are essentially not simply dollar costs, but are costs in labor-hours spent in various parts of the American economy, in tools, in plants, in natural resources, such as oil pumped out of the ground, and so on.

The costs can more meaningfully be described in terms of things which we do not do because we allocate our resources to military needs. In other words, these costs can be described in terms of a private consumption which does not take place because military consumption takes over. By "public consumption" I mean allocation of resources destined to serve public needs of different kinds, which very often are satisfied directly out of public budgets.

The story which I have to tell can be best presented if one does not read in detail the rows of figures which are included in our written report, on these four charts, and from now on my comments really will be comments on these four charts.

The basis of our computation was an assumption which I received essentially from your committee that the military expenditures might be reduced by a certain number of billions of dollars. We took a reduction of expenditures on the Vietnamese operation by \$19 billion, and we computed through implication of two alternative policies, so far as the alternative use of these resources is concerned.

One is, I must admit, not a realistic one, at least not in my opinion, although, of course, there are some people, some very prominent people in this country, who I think would favor that alternative. For example, Professor Friedman of Chicago would, I think, be very happy with it.

Let's look at this chart. (See chart, exhibit 1, p. 248.) The base line, the length of which represents really the total output based on the use of all resources. We are more or less in a full employment situation now in the American economy in the year 1967. That long stretch is private consumption, household consumption, and investment by private business. This is what is governed by private business. This is Government. This is the nonmilitary part of the Government. This is the military, this stretch, and this is divided, the general military versus the Vietnam operation as such.

Now with this going up and down in each case described in percentage figures, it shows what would happen in case you do have a shift.

First of all, the downward movement here means reduction. Now this column had to be terribly long, were it to represent the reduction of \$19 billion, so I just cut it off here. Actually, it would be rather long. As a result of that, we can push up on the other side. The first thing is essentially where you allocate these resources essentially to the private sector.

Let them through fiscal policy, tax policy, and so on, permit them to buy more. Private consumers, if their income taxes are reduced, and

private business the same. They would increase by nearly 3.9 percent above the present level. You could really increase the delivery and services.

We have permitted here a slight increase to be realistic in non-Vietnam military expenditures, in a savings which they might make themselves, and a slight increase in Government expenditures.

The other alternative is a different one. It also permits an increase, provides for an increase in private spending, but still concentrates the allocation of a saving afforded through a reduction of military spending on satisfaction of so-called public needs. Essentially, to use one word for it, it is the Great Society program.

From the ceiling of \$19 billion, which is about 25 percent of our total military budget, at least as much as I know about it, it would permit us to increase the private consumption, not only the standard of living but also investment, by about 1.3 percent, and by about 11 percent could be allocated to Government expenditures serving civilian needs.

I think it is very important to realize that what we are saving in the military expenditure is hard earned money, hard earned by the Government. For the Government, it is very difficult really to get money, you know. It has to tax. It has to borrow. Consequently, it is very valuable money from the point of the public, so naturally it should be spent, I think, on very important valuable objectives, such as are included in the Great Society program.

On the chart on the other side (chart 1, p. 248), I give you a closeup view. You know, you have a big map when you show a whole region, and then you have a more detailed map of a particular region which interests you. This is the region which is a particular concern of the Government. So on the chart on the left there, essentially it is a blowup of this part, the private sector. You can see there, of course, a reduction in national defense—this appears as a saving. It appears larger.

Here is the Government program. This is what we could afford in essentially the Great Society, international affairs such as foreign aid, 40 percent; natural resources, about 40 percent; housing for military development; education, 60 percent. This is what the Government provides for, and, of course, veterans' expenditures.

So here you have, I think, a relatively realistic picture of what could happen. Now the choice between the two alternatives, as a matter of fact, any other alternative, if you were to give it to me as an assignment to compute it through and give a little money to compute it through, we could do it, but many people really are concerned in this country, not about these things, but about the problem of transition.

It is very well to say, "Who cares about transition?" but it is the transition with strains and stresses which might be imposed on our economy in the process of shifting from one situation to another, which I would like to comment upon now.

Mind you, in our analysis, obviously, you must consider the picture as a whole. When you compute these things through, you really do accompany either one or the other value so far as the allocation of resources is concerned.

Again the baseline describes the total level at the present time, with blocks up and down describing increases and decreases. In case we deescalate the war, you can see you could have expected what would happen, but here the figures are specific and more accurate.

A reduction in output and employment in a small group of industries, rather concentrated, but with changes. You see here the percentage figures. You have over 30 percent for ordnance, aircraft, the general defense establishment, communications, electrical equipment, and so on down the line. Some place in here is the steel industry. It will change slightly in a negative direction.

On the other side a large front of industries will increase, will be required to satisfy the civilian needs which will be permitted to be satisfied better. Here you have a scale of industries, food, leather, livestock, apparel, medical, educational, other, agricultural, trade. Naturally, the percentage rise is much less than the reduction here because the total volume in each is larger and is more widely spread.

It is noteworthy that a similar analogous picture for the second area, in which you allocate a higher proportion of resources released from military use to service of the Great Society programs, you will have a distribution of increases which are not as even. There will be certain industries, naturally direct Government activities, new construction, lumber, wood, stone, and so on, these industries which will experience a rather sharp increase in the level of employment and production.

This is quite understandable because in a sense you can say military demand is rather concentrated on particular groups of commodities, so is the demand for a produce of the sectors of the economy which specifically serve public civilian needs.

Let me come to the last aspect of that picture. The original distribution of adjustments is certainly at least as important as the industrial, and should I say from a political point of view, possibly even more important, because in our system of government, there are no Congressmen at large and Senators at large and people at large. Each lives in some State or comes from some State, and naturally, he is interested to know not what happens to the country as a whole but what happens in his particular region. So we translated that computation in regional terms.

Mind you, it is not a separate job. Obviously, you must simultaneously consider all these factors as we did, and the translation of industrial figures into regional figures essentially consists of taking into account the distribution of industrial activities of each kind between different regions of the country, and here I come to my last chart. (Chart, exhibit 4, p. 252.)

Again we have 19 regions. We group the States, and let me explain this. The left part of the little graph in each instance refers to this value, the emphasis on private consumption and investment exclusively, as a matter of fact, and the right to be more balanced, in my opinion, from the point of public needs distribution of the use of these resources with emphasis on social needs and Great Society programs.

your computation in terms of specific outputs in specific industries, and as you presently will see, in specific regional parts of the country.

Now here is what we did, we showed here changes in employment, which is, of course, the most important part, and output in different sectors of the economy, in different industries which would have to

Now what does this indicate? Whenever this adjustment will take place, some people in each State will lose their jobs. On the other side there will be new jobs created. Obviously, those industries which will contract jobs will be lost, and those industries which will expand, new job opportunities will be created. And since we saw from those charts some industries will expand and some contract, and each State has some of both, you will find on the one side new jobs created, and some jobs lost.

From the point of the workingman, it is, of course, very important: What he is interested in, will he have to move for his job or not? Even if there are some other industries in the State which expand, other than the one in which he works which contracts, he has to change his job.

Furthermore, if in a particular State the number of additional jobs is smaller than the number of jobs lost, then people will have to move out and look for jobs in other States. The total job picture, of course, will remain balanced, because all these computations are based on the assumption, and may I add on a firm belief, that we will maintain full employment at all costs. We cannot afford to do anything else.

But full employment doesn't mean that everybody will keep his present job. Adjustment is really shifting people around.

Responding to this value in California—upward, these additional jobs will be created; downward, is the jobs that will be lost. As you can see, the loss would exceed the gain and there will be a net reduction of employment opportunities in California. If you ask me why, those industries which will contract are concentrated there.

Now the right two blocks correspond to the second value. I cannot comment in detail on these figures, but in my statement you have this. However, let me make one observation which you can check. The remarkable thing is this. In all the regions which are located somewhere near the oceans, on three sides, there will be a slight reduction in job opportunities.

In all the regions which are in the heart of the country, between the Great Lakes and here, where you see the blocks looking upward are higher than those looking downward, there will be a gain in jobs.

I am pleased to say, Senator, that in your particular region there will be a gain in jobs; so by serving the right ideals you will also serve your constituents, while the Senator from California will have to work more for morality in general.

This indicates where measures must be taken if necessary, to prepare for the necessary adjustments. Adjustments here will be more difficult than adjustments there. Here we will have to attract labor. Here we will have to find jobs for them.

In concluding, let me make one remark. If you look at the percentage figures in all these cases, particularly here, they are small—3 per-

cent, 2 percent, 4 percent seem to be very small. Let us not forget, however, that small percentages employmentwise socially are very significant.

A 4-percent unemployment is all right, quite high, 5 percent we already consider really a serious situation; 6 percent begins to be nearly an emergency situation. Now as you can see in the appendix, the figures which correspond to this chart, in California, according to the basis of this assumption, you might have an increase in unemployment of 3.7 percent, which is definitely a problem.

Chairman PROXMIRE. When you say "an increase of 3.7 percent," you mean if it were, say, 3 percent now, it might go to 6.7 percent?

Mr. LEONTIEF. Right; this is what it means. So a small percentage of figures from the point of significance are really very important here. With this I would like to conclude my statement, and I would be glad to elaborate on any points which you would care to ask me about.

(The prepared statement, appendix, and charts attached, referred to, follow:)

PREPARED STATEMENT OF DR. WASSILY LEONTIEF

Mr. Chairman, in inviting me to testify on the alternative uses to which this country might be capable and willing to put the resources that could be set free by de-escalation of military action in Vietnam, you raised a straightforward question. I will endeavor to give you as straightforward an answer as a small group of University researchers, with no privileged access to official information, can produce in two-week's time.

I

The rising costs of the steadily expanding war are usually described in terms of so many billions of dollars. They can more meaningfully be expressed in millions of man-years, millions of square-yards of plant space filled with a kinds of industrial equipments, millions of barrels of oil pumped from the earth. In short, the real costs of war are measured in terms of human and natural resources and stocks of productive capital accumulated over a period of many years, absorbed in production, transportation, maintenance, and replacement of weapons, equipments, and supplies of all kinds now shipped in a steady stream to distant battlefields. To these we have to add the hundreds of thousands of man-years of military and civilian personnel, directly engaged in military operations and their direct support.

This translation of dollar cost into real terms has been performed by us. But such computations still do not answer the \$19 billions' question. I assume that you want to know what this country gives up in terms of private consumption and investment, in terms of schools and research laboratories, of hospitals and highways, of unpolluted rivers and clear air, so long as it maintains the present level of military operations. The computations, the result of which are summarized on the charts that are displaced here, are based on the use of the well-known method of cost-benefit analysis—now widely applied to the evaluation of all kinds of governmental operations—for assessment of the cost of the Vietnamese war. Whether the hospitals and roads and private consumption and investment should be considered as cost and the result of military operations as benefit, or vice-versa, is not for me to judge. All I can say is that in a full or nearly full-employment economy like ours, if you have the one, you have to forego the other.

II

A full technical description of the methods of so-called input-output analysis that enabled us to give a rough and ready—but nevertheless reasonably concrete—

preliminary answer to the question raised by you, has been presented elsewhere (see appendix to this statement). Now it suffices to say that these methods permit us to translate any "bill of military final demand," that is, any given combination of planes, helicopters, munitions, and so on, into thousands of man-years employed in all the different sectors of the U.S. economy that do in fact contribute either directly or indirectly to the production of these goods.

To measure the possible alternative, non-military uses of these resources, we have computed in the same way the manpower requirements generated by typical bundles of non-military, civilian demand. Among these, distinction was made between final deliveries to the private sector (comprising consumption expenditures of private households and investment of private business) on the one hand, and deliveries to the public sector, that is, to the Federal and local government. These are intended to serve so-called public needs, such as health, labor and welfare, education, highways, public housing, and so on. Veterans' expenditures, space, and last but not least, defense expenditures belong, of course, to this later group.

The bar chart in the upper part of exhibit 1 shows by how much private consumption would have been increased if the man-power resources released by a 19 billion dollars, i.e., by an hypothetical 26% cut in the 1967 military expenditures, were used exclusively to satisfy increased private civilian demand, while deliveries serving non-military public needs remained the same as they were before.

This picture is, of course, based on an extreme and quite unrealistic assumption: While some rise in the level of private consumption would be obviously desirable, pressing public needs should and most likely would have the first call on tax dollars now spent on the Vietnam war.

The picture on the lower part of Exhibit 1 shows that by keeping the extra dividend paid out to the private sector to 1.3%, it would be possible to increase the deliveries serving the so-called public sector by 11.2%.

Exhibit 2 gives a close-up picture of advances in various Great Society programs which would become possible in this second case. The particular distribution between the different types of public expenditures shown on that chart is incorporated into it only for illustrative purposes. The implications of any other allocation could, of course, be computed in the same way.

III

While the choice among alternative uses of productive resources released through reduction in military spending leads directly to the essentially political questions of cultural, social and economic national goals, the shift itself from one allocation pattern to another is bound to be accompanied by all kinds of strains and stresses. The fact that these difficulties can be called transitional does not make them less painful.

All that I have said up to now and what I will say from now on, is predicated on the assumption that full employment must and will be maintained. The computations, the results of which constitute the gist of this statement, are based on the assumption that the man-power released from direct or indirect military uses as a result of the hoped for de-escalation of the war in Vietnam should be fully re-employed in the service of increased civilian demand. This does not mean that jobs will not be lost. It only means that an equal number of new jobs has to be created. These new jobs will, however, appear in different industries, in different occupations, and in many instances they will be located in a different state. This means that many blue collar, white collar and professional workers will have to look for a new job in another region.

The input-output computations referred to above permit us to estimate the changes in distribution of the total U.S. labor force by industries and regions that would have to accompany any given pattern of shift from military to civilian demand.

Exhibits 3a and 3b show which industries can be expected to expand and which to contract if and when some of our resources will shift from the production of swords to the manufacture of ploughshares, or should one say, from napalm to cosmetics.

The expansion, or, respectively, the contraction of the levels of output, and the corresponding levels of employment in all the different industries shown in the bar chart on Exhibit 3a, can be expected to occur if Alternative 1 were chosen, i.e., if the resources released from military use were devoted entirely to an increase in private civilian consumption and investment.

The bar chart in Exhibit 3b depicts the corresponding picture if Alternative 2 were realized.

Without entering into detailed analysis of these figures, I can only observe that in either case, the cutbacks will be large and concentrated in a few industries—such as, Ordnance, Aircraft, Communication, Electronic Equipment—while the expansion will be spread much more widely and distributed more evenly. This is explained by the fact that military demand is concentrated on a relatively small group of specific items, while private civilian demand is spread all across the board. For the same reason, the expansion will be less even, that is, it will be concentrated in a smaller group of industries under the second of the two alternatives: Employment serving directly and indirectly the demand generated by public needs—such as, education, health, or road building—not unlike that generated by military spending, is concentrated on a small number of goods and services.

Exhibit 4 completes the picture by showing the distribution of new jobs created and old jobs lost among the different regions. On the schematic map of the United States, two small bar charts are inscribed in each of the 19 regions, one corresponding to the first and the other to the second of the two alternative allocations of resources released through a \$19 billions cut in military procurement. The bar extending up from the base-line represents in each instance the additional employment opportunities created in the industries that can be expected to expand in that particular region; the bar extending downward measures the number of employment opportunities lost in industries expected to contract in the same region. The difference between the two obviously represents the net regional loss or gain in employment opportunities.

Time does not permit me to interpret in detail the resulting picture region by region. A general pattern seems to be emerging very clearly: The "heart land," that is, the central area extending from the Great Lakes to the Rockies will in either case experience a net gain in output and employment, while the regions adjoining the western, southern, and eastern shores, from California to New England, will show losses in output and employment opportunities. It is in these areas that remedial action will be called for to mitigate the effects of potentially rising unemployment.

In judging the significance of the small percentage figures in Exhibits 3 and 4, we should remember that the average rate of unemployment for the American economy as a whole stands now below 4%. Thus a net increase of 3.7% shown under Alternative 1 for California, should be considered so perilous as to call for drastic action. In this connection, it is interesting to note that in Alternative 2, with higher priority given by public than to private civilian consumption, the dislocation of the employment pattern would be markedly smaller than under Alternative 1, under which all military savings would be passed to private civilian spenders. In any case, the structure of government spending does not exhibit the rigidity characteristic of private sector purchases, and it is clear that government programs could be adjusted with the objective of reducing sectorial and regional employment shifts to a minimum.

In conclusion, I call your attention again to the preliminary nature of all the figures presented in this statement. Considering the magnitude of the economic shifts which were described and the importance of the social problems which will be created or solved, substantial additional research in this general field, not only by private, academic groups, but by the government itself seems to be warranted. Some of this research has been recently initiated by such agencies as the Bureau of Labor Statistics in the Department of Labor, the Input-Output Unit and the Economic Development Administration in Commerce, as well as by the new Department of Transportation.

APPENDIX

[Prepared by André Daniere]

The study compares the distribution of employment by sector, and of employment by region, corresponding to three alternative final demand vectors. The method of analysis is that followed in "The Economic Impact—Industrial and Regional—of an Arms Cut," published in *The Review of Economics and Statistics* of August, 1965. As in the earlier study, the "percentage change in employment" is in fact measured by the corresponding percentage change in the sum of labor earnings and income of unincorporated enterprises generated in each economic sector or region.

The three final demand vectors, described more fully below, include:

(1) Actual final demand estimated for the calendar year 1967:

(2) Alternate final demand I, consisting of—

Military (government) demand under (1) reduced by \$19 billion of specific goods and services, on the assumption of de-escalation in Vietnam. This represents a 26% reduction in military demand;

Same non-military government demand (and same net exports) as under (1);

Private sector demand under (1) increased uniformly by 3.9% to bring total employment (earnings) back to their level under (1).

(3) Alternate final demand II, consisting of—

Military government demand under (1) first reduced by \$19 billion of specific goods and services, on the assumption of de-escalation in Vietnam, then increased by \$1 billion of general (mostly strategic) defense, for a net reduction of \$18 billion, or 24.1%

Same non-military government demand (and same net export base) as under (1), plus \$11.5 billion absorbed in Federal "Great Society" and Foreign Aid programs, representing an 11.2% increase in non-military government demand;

Private sector demand under (1) increased uniformly by 1.3% to bring total employment (earnings) back to their level under (1).

The estimate of GNP components for 1967 is based on extrapolation of recent National Accounts, published economic reports concerning the first quarter of 1967, and the U.S. Budget for fiscal 1967 and 1968. So as not to overemphasize the weight of Vietnam obligations, total of 1967 GNP was estimated at an optimistic \$775 billion.

COMPOSITION OF VIETNAM DE-ESCALATION VECTOR

The 1967 military demand of \$72.7 billion was decomposed into a "basic defense" bill of \$53.7 billion and a "Vietnam de-escalation" bill of \$19 billion. This does not imply that the Vietnam war consumes only \$19 billion of goods and services. The \$19 billion figure measures the amount by which annual purchases of goods and services could be reduced, were we to return to the 1965 level of military activity. The figure, and its breakdown by categories, were supplied by Mr. Daniel James Edwards, of the Joint Economic Committee's Research Staff.

The "basic defense" bill was assumed to have the same composition as the defense bill of 1963 (estimated by Clopper Almon).

The "Vietnam de-escalable" bill is specified in terms of the following components:

	<i>Billion</i>
Ammunition procurement.....	\$3.0
Aircraft procurement.....	4.6
Weapons, vehicles, other support equipment.....	1.2
Electronics and communications procurement.....	.5
Contract transportation.....	1.0
Military personnel.....	3.5
Operations and maintenance (excluding contract transportation).....	3.0
Overseas construction.....	1.0
Research, development, test and evaluation.....	1.2
Total.....	19.0

The detailed composition of given categories by supplying industry was available only for the four procurement categories. (Research Analysis Corporation: "Economic Impact Analysis: A Military Procurement Final Demand Vector," prepared for the Department of Defense March, 1967.) In breaking down the remaining categories we had to rely on our own uninformed judgment.

COMPOSITION OF ADDITIONAL GOVERNMENT DEMAND

Under alternative II, the federal defense budget is reduced by a net of \$18 billion, and the federal non-defense budget is increased by \$12.5 billion. Because \$1 billion is assumed to be spent in transfer payments to persons under Education and Welfare programs, this budget figure is \$1 billion more than the purchase of goods and services (final demand) announced on page one.

The "additional budget" breakdown was again supplied by Mr. Daniel James Edwards, of the Joint Economic Committee's Research Staff:

	<i>Billion</i>
Space -----	\$1.0
Foreign Aid -----	2.0
Health, Labor, and Welfare -----	2.5
Education -----	2.0
Veterans -----	1.0
Crime Control -----	1.0
Air and Water Pollution Control -----	1.0
Big Cities Redevelopment -----	1.0
Natural Resources -----	.5
GSA Construction -----	.5

Because of the time factor and because no comprehensive distribution of Federal and State purchases by supplying sector is available on a program basis, extremely rough estimating procedures had to be used in obtaining the final commodity breakdown. A basic source was Clopper Almon's 1963 estimate of final demand composition.

COMPOSITION OF OTHER ELEMENTS OF FINAL DEMAND

Clopper Almon's 1963 estimates were used.

SOURCES OF INPUT-OUTPUT AND OTHER COEFFICIENTS

1958: 60-order matrix of input-output coefficients.

1958: Matrix of regional distribution coefficients for "national industries" (Lack of time prevented re-computation for a more recent year.) As a result, Hawaii and Alaska had to be excluded from the analysis.

Matrices of regional distribution coefficients for final demand to local industries: computed for twelve separate final demand components on the basis of eight distributions by state available in the 1967 Statistical Abstract, and three distributions by state (federal program expenditures) supplied by Mr. Daniel James Edwards.

SPECIAL FEATURES OF THE MODEL

Pay and allowances received by military personnel were assumed spent by them or their families on various commodities and services in the same proportions, as earnings from any other sector. Private consumption out of such pay and allowances was distributed by region in proportion to D.O.D. obligations for military personnel by region, without reference to the stationing of personnel abroad.

On the assumption that drafted military personnel is, on the average, undervalued (in terms of alternative earnings in civilian employment), the military personnel released under de-escalation was valued at \$4.5 billion, or \$1 billion more than its actual pay and allowances. However, as noted in the previous paragraph, private consumption originating from military earnings was related to (i.e., the consumption coefficients applied to) actual receipts rather than alternative earnings.

Federal outlays under the proposed "additional budget" were distributed among states in roughly the same proportion as corresponding programs were distributed in the last four years.

ALTERNATIVE I

Percentage change in employment by sector—Vietnam deescalation (1967 base)

[Selected sectors—All 39 unlisted sectors show an employment increase between 0 and 3 percent]

Food -----	+3.8	Ordnance -----	-36.6
Leather -----	+3.8	Aircraft -----	-24.1
Livestock -----	+3.7	Government defense -----	-15.6
Apparel -----	+3.7	Communications and electronics	
Real estate rentals -----	+3.4	equipment -----	-8.2
Medical and educational services -----	+3.4	Nonferrous metals -----	-3.7
Other agriculture -----	+3.3	Instruments -----	-3.6
Tobacco -----	+3.2	Electrical apparatus -----	-2.8
Trade -----	+3.2	Iron and steel -----	-0.8
Finance and insurance -----	+3.2	Nonelectrical machinery -----	-0.8
Fabrics and yarns -----	+3.0	Transportation and	
Personal repair services -----	+3.0	warehousing -----	-0.1

ALTERNATIVE II

Percentage change in employment by sector—Vietnam De-escalation (1967 base)

[Selected sectors—All 35 unlisted sectors show an employment increase between 0 and 1.3 percent]

Government nondefense -----	+5.6	Ordnance -----	-35.1
New construction -----	+5.5	Aircraft -----	-22.2
Lumber and wood products -----	+2.8	Government defense -----	-12.9
Stone and clay -----	+2.7	Communication and electronics	
Tobacco -----	+2.1	equipment -----	- 8.1
Other agriculture -----	+1.9	Instruments -----	- 3.6
Livestock -----	+1.6	Electrical apparatus -----	- 2.9
Food -----	+1.5	Non-ferrous metals -----	- 2.5
Maintenance and construction -----	+1.5	Nonelectrical machinery -----	- 1.0
Apparel -----	+1.4	Rubber -----	- 0.7
Leather -----	+1.4	Amusements -----	- 0.6
Trade -----	+1.4	Transportation and	
Finance and insurance -----	+1.3	warehousing -----	- 0.5
Real estate rentals -----	+1.3	Motor vehicles -----	- 0.3

Percentage change in employment by State, Vietnam deescalation (1967 base)

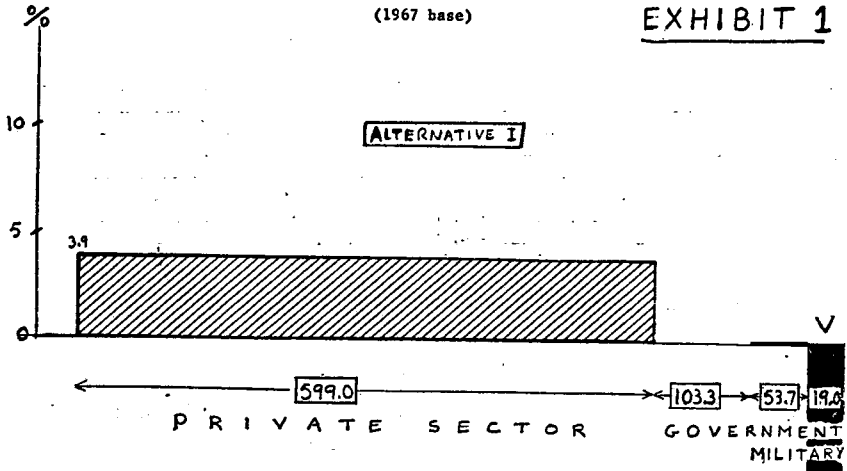
	Alternative I			Alternative II		
	Increase	Decrease	Net	Net	Increase	Decrease
1. New England -----	1.6	1.9	- .3	-.6	1.5	1.8
2. New York -----	2.1	1.4	+.7	+.4	1.6+	1.3-
3. New Jersey, Pennsylvania -----	2.3-	1.0+	+.1.2	+.6	1.5	.9
4. Michigan, Ohio -----	2.3	.9	+.1.4	+.6	1.4	.9
5. Indiana, Illinois, Wisconsin -----	2.4-	.9+	+.1.4	+.6	1.5	.9
6. Minnesota, North and South Dakota -----	2.8+	1.1-	+.1.8	+.1.7	2.7	1.0
7. Iowa, Missouri, Nebraska, Kansas -----	2.5	1.8	+.7	+.4	2.1	1.6
8. Georgia, North and South Carolina -----	2.1	2.7	-.6	-.5	2.0	2.5
9. Virginia, West Virginia, Maryland, District of Columbia, Delaware -----	1.0+	2.4-	-1.3	-1.0	1.0+	2.1-
10. Florida -----	1.4	3.2	-1.8	-.7	2.1+	2.9-
11. Tennessee, Kentucky -----	2.3	1.4	+.9	+.1.2	2.5	1.3
12. Alabama, Mississippi -----	2.1	1.6	+.5	+.2.1	3.4+	1.4-
13. Oklahoma, Louisiana, Arkansas -----	2.2	1.6	+.6	+.2.7	4.1	1.4
14. Texas -----	1.6-	2.6+	-1.1	-.7	1.7	2.4
15. Montana, Wyoming, Idaho -----	2.4	1.5	+.9	+.1.7	3.0	1.3
16. Colorado, New Mexico -----	.9	3.5	-2.6	-.6	2.4	3.0
17. Arizona, Nevada, Utah -----	1.2	2.6	-1.4	+.4	2.6	2.2
18. Oregon, Washington -----	1.5	2.7	-1.2	-.7	1.8	2.5
19. California -----	.6	4.3	-3.7	-2.8	1.4	4.2

NATIONAL PRODUCT DISTRIBUTION

VIETNAM DE-ESCALATION

(1967 base)

EXHIBIT 1



The width of each block represents the magnitude of purchases in 1967.

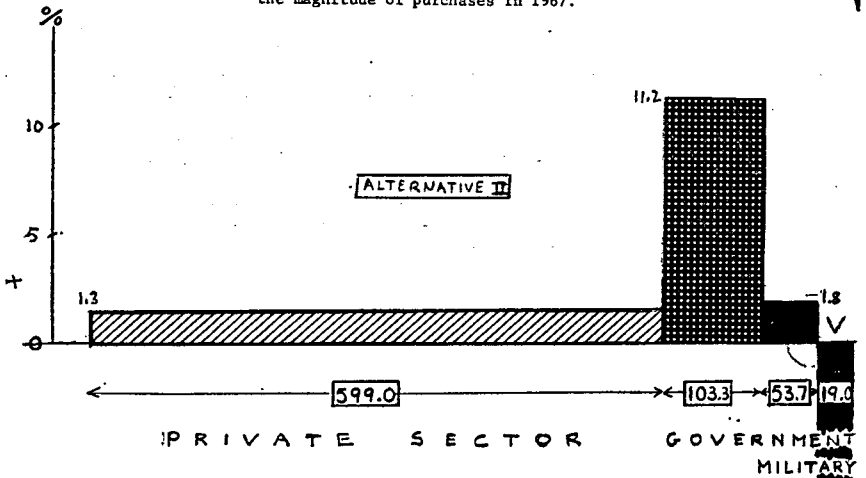
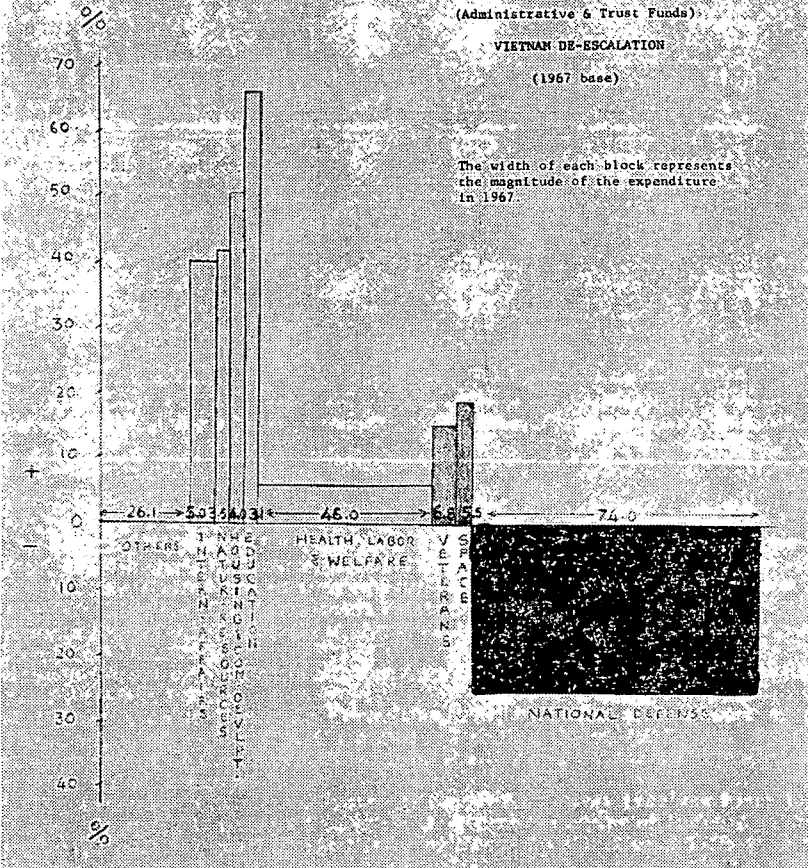
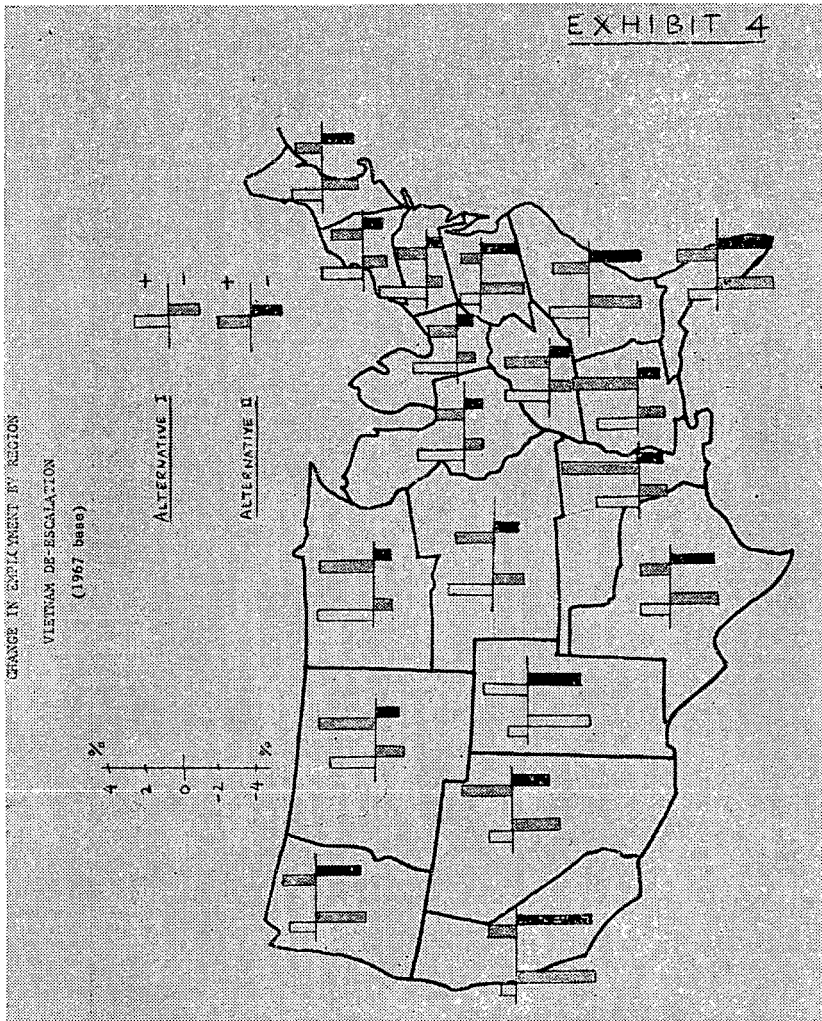


EXHIBIT 2

FEDERAL BUDGET
 (Administrative & Trust Funds)
 VIETNAM DE-ESCALATION
 (1967 base)

The width of each block represents the magnitude of the expenditure in 1967.





Chairman PROXMIRE. Professor Leontief, is this analysis based on specific information with regard to what the Vietnam deescalation might mean, or is it based on an assumption that if you reduce the whole Defense Establishment by \$19 billion from its present level, that, in general, it would have the effect that you spell out?

Mr. LEONTIEF. In the appendix, at the bottom (see p. 245). I give a list which was conveyed to us from Washington, specifying the composition of the hoped for or assumed reduction in the "military bill of goods."

There is a \$3 billion cut, for example, in munition procurement, a \$4.6 billion drop in aircraft procurement, and so on down the list. As I said before, some privileged information might make these figures

more realistic but I am of the opinion that the overall picture would not be greatly modified if some details were changed in this list.

With a large expenditure for munitions, replacement of lost aircraft, and so on, the product mix in it is typical for active military operations, as contrasted to a peacetime maintenance of military forces where the product mix is different.

Chairman PROXMIRE. How did you arrive at the \$19 billion, the assumption that deescalation in Vietnam or a cease-fire in Vietnam—

Mr. LEONTIEF. This is a figure which we received from Washington. Prevailing here, the opinion seems to be that this is about the magnitude which might be involved in case the Vietnamese operations were deactivated. Actually, the net reduction dealt with in our computations amounts to \$18 billion not \$19 billion, because we cut the Vietnamese operations by \$19 billion but added \$1 billion to other military expenditures.

If a different figure were given, one could recompute the whole thing in accordance with it, too. The same applies, of course, to alternative assumptions concerning the composition of the civilian bill of goods.

Chairman PROXMIRE. You make a basic assumption, as I understand it, that these figures reflect the notion that we would have about the same level of employment that we have at the present time?

Mr. LEONTIEF. Yes. The idea is that we will maintain the same level of employment as we have at the present time. My feeling is that this will be the very firm objective of the policy pursued by our Government under all possible circumstances.

Chairman PROXMIRE. What are the total real costs of our Vietnam hostilities? You lived through the Russian revolution. You saw the Chinese revolution. My staff informs me you will soon be going to Greece as a neutral observer. With your broad theoretical economic background and your broad practical experience, will you attempt to place our Vietnam commitments in broader perspective in the "short and long run," as you economists say?

Mr. LEONTIEF. Yes. Mr. Chairman; as I said in my statement, we are engaging here in a cost-benefit analysis of the Vietnamese war. The question I myself would like to ask is this: Of the two sides of the ledger spread before us on my graphs, which represents the costs and which the benefits?

I suppose, as things go now, the benefits are the war in Vietnam. At least, the State Department acts as if these were benefits. What then are our costs? Our costs are a nearly 2-percent reduction in the standard of living of the average American, and a nearly 11-percent, \$12-billion cut in funds allocated to the satisfaction of all kinds of urgent public needs. These are the direct immediate prices that we pay for the benefits which this country allegedly derives from the Vietnamese war.

It is my own personal opinion that, in addition to this, we are paying other terrifically high costs which ultimately will also be translated into material burdens that we will have to carry for years to come. As you know, this is a war supported by the people whose support, under ordinary circumstances, we wouldn't wish to have at all, and which, on the other hand, has alienated, throughout the world,

those people whose support we badly need. These, Mr. Chairman, are the staggering additional costs not shown in my figures.

Chairman PROXMIRE. As you know, Professor Leontief, the administration wouldn't supply the staff of the Joint Economic Committee with a numerical value to conduct your analysis. We understand that if hostilities ceased tonight the administration would not have domestic economic contingency plans to put into operation tomorrow. What do you feel about that inadequate advance planning?

Mr. LEONTIEF. I hope very much that unpreparedness for peace will not be permitted to last much longer. Advance planning is not a simple thing; it is, moreover, time consuming and expensive. You cannot remedy the situation by putting a couple of guys to work with pads and pencils.

Economic analysis nowadays is an exacting operation. It requires an investment of large resources in information gathering and painstakingly programmed large-scale computations.

A substantial investment in the preparation of this type of plan would pay off handsomely in higher output and employment and consequently in fewer bottlenecks, larger tax collections.

If the Federal Government had at its disposal a large, well-staffed, and generously financed organization for basic but, at the same time, practical economic research, we would not have to set up a special organization just to study the effect of deescalation. The same basic data, the same fundamental logic can, and in fact should be, used to analyze the problem of, say, the effects of technology on employment, or to answer the effects of a hypothetical escalation or of the present escalation in Vietnam.

To answer the latter question you just have to turn these charts upside down. The columns which go down will go up, and the columns which go up, will go down: We will have to cut down on consumption, we will have to cut down on social services, we will have to cut down on education, and so on, to produce more planes and more munitions and to send more boys to Vietnam.

Chairman PROXMIRE. What you are using here is what is called input-output analysis?

Mr. LEONTIEF. Yes, I do.

Chairman PROXMIRE. And what would be the total employment displacement under alternatives one and two over here?

Mr. LEONTIEF. Displacement might amount to possibly one million people having to shift into different jobs. It might be still larger because our computations tend to underestimate the amount of displacement in that we count as displacement only movements out of one into another of the 80-odd sectors in terms of which these figures are presented. But within each sector there are many subdivisions. Shifting out of one department of the steel industry into another might be quite a displacement for a worker, although statistically it does not appear as such. The same, of course, applies to shifts between regions.

Chairman PROXMIRE. I have just one final question. This is a question that I would appreciate it if Mr. Brock would permit me to ask, because my time is up.

Yesterday, we had very helpful testimony by four fine economists. The last one was Professor Weidenbaum, who as you know has made

a very specific study of Vietnam. He directed his constructive proposals not only to the possibility of deescalation, but the prospects for escalation, which as you know, seem to be quite serious right now.

He indicated that there were a series of specific data which he said is unclassified, is available, but is usually available late, is scattered all over the map in the Defense Department, so that economists can't put it together for months, and if we could get this data promptly, he said we would be in a far better position to evaluate what is going to happen to the economy in the future.

I would like to very briefly summarize what he said we should get and see if you think this is about it, and if you think there is other information we should have.

- (1) Data on military obligations and expenditures by programmed category.
- (2) Data on military manpower, including draft calls.
- (3) Data on defense contracts by product group, industry and geographic area.
- (4) Data on defense and materials set-asides.
- (5) Data on orders, sales, inventories, and backlogs of defense industries.
- (6) The latest official forecasts of military programs, as well as comparable historical numbers.
- (7) Seasonally adjusted as well as raw or actual figures.

He felt, and we all feel, that last year we were in a most unfortunate situation because we had this sharp escalation and we didn't provide adequate compensatory action by the Government either with a tax increase or other spending reduction to compensate for it, so we had inflation, we had high interest rates, and so forth.

My question is, do you think that this is a fair listing of the kind of data we need so that we will be in a better position to act, and second, if you think there is anything else that should be added to it?

Mr. LEONTIEF. I think it is a fair list. I would add to it some additional items. These figures will give a better picture of the operation in those sectors of the economy that are immediately engaged in production of goods delivered to the Military Establishment, but, of course, all the other sectors of the economy, such as mining, chemical industry, power production, and so on—while they don't deliver directly to the Military Establishment—deliver their respective inputs to other industries that hold defense contracts. A large part of militarily committed employment really is found in the industries which cannot be classified as war industries.

So I would suggest that better information on the rest of the economy—such, for example, as is provided by the input-output charts issued by the Department of Commerce—could greatly increase the usefulness of the data included in Professor Weidenbaum's list.

Chairman PROXMIRE. Fine.

Mr. LEONTIEF. I think that it is most important to improve our entire information system, rather than just to build one information system for answering a particular question.

Mr. Chairman, the request to testify before this committee was addressed to me just 3 weeks ago. I had quite a struggle with myself and my staff in deciding to accept, on this very short notice, such a major

assignment. Now we were able to perform all these computations in a few days with a very small staff, because we had all the basic information pretty well organized. We also had excellent cooperation from the people in Washington, particularly from your office, supplying to us information, whenever we needed it. This demonstrates how a centralized storage system for basic economic information enables a small but well-organized group of trained analysts to answer all kinds of questions which you gentlemen might want to ask.

Chairman PROXMIRE. Congressman Brock?

Representative BROCK. Thank you.

I have been fascinated, Professor. I appreciate your testimony. Your assumptions are based upon a decrease in Vietnamese spending, specifically of \$19 billion. They are also based upon a maintenance of what we now consider to be accepted as full employment, no real variation in total employment throughout the Nation.

Mr. LEONTIEF. No.

Representative BROCK. It is sort of interesting to me that I have pinned in my own mind a minimum figure of a deficit for this year of something in the neighborhood of \$19 billion, and I may be off \$4 or \$5 billion. I am certainly a long way in this hearing from the administration projections. But, if I am correct, what effect will this deficit have on the economic situation in the country, specifically as it relates to prices of goods and services? What I am saying is, What does a \$19 billion deficit do in a full employment situation?

Mr. LEONTIEF. The financing of purchases by the private and the public sector involves many more factors than just the Federal deficit. For example, you might balance the Government budget, but, at the same time, expand credit and get exactly the same result so far as the total level of purchasing power is concerned.

If the Government, for one reason or another, wants to reduce the deficit or increase the deficit, which ever is its desire, it could rely on other means, bookkeeping means and persuasion in the financial sector, to maintain essentially the same balance between the total purchasing power and the available supplies.

Representative BROCK. What I am getting at, as most of us here would admit, it is much more politically difficult to have a \$19-billion deficit for domestic spending than it is for Vietnam spending.

Mr. LEONTIEF. You certainly are right. Because of that value of the dollar which is in the hands of the public authorities is in a certain sense considerably greater than the value of the dollar in private hands. It is difficult for the Government to get hold of a dollar, and consequently, I would suggest, it should think twice before giving it up.

Representative BROCK. But you are using a dollar you don't have.

Mr. LEONTIEF. How come?

Representative BROCK. Because this is a deficit dollar. This is not a tax dollar. This is a borrowed dollar.

Mr. LEONTIEF. Borrowed dollars can buy goods too. In my first illustration, if you stop governmental borrowing, simply eliminating the deficit, the private sector can increase its borrowing and spend as well as you.

Representative BROCK. That is right.

Mr. LEONTIEF. You will be able to increase the private consumption and spending by this amount, 3.9 percent, if they really spend it, and keep your Government program at the present level. In this case, you would, of course, have no expansion in the direction of the Great Society.

Representative BROCK. If I may interrupt, sir, I don't see how you turn back a deficit that you didn't take in the first place. If we had a balanced budget situation and our income equaled our outgo, you could turn back in the form of a tax cut, but how do you turn back to the economy money that you simply just don't borrow in the first place.

A \$19 billion deficit is borrowed money and there is a great deal of difference between that and income. How does that feed into the private sector? I don't see how you get your increase in the private sector in alternative one, by a simple reduction—

Mr. LEONTIEF. You see, Mr. Congressman, if I am not mistaken, this is really a question of bookkeeping. The Government can borrow less. The banks can lend more, release more money and so far as the balance in purchasing power is concerned, it will remain exactly the same as it was before.

The Government, if it wanted to, could even begin to redeem the Government debt, it would put more money in somebody's hands and the net effect would depend on what the sectors of the economy that would get that money would do with it.

My opinion is that this is really a bookkeeping operation.

Representative BROCK. If the Government doesn't borrow the money and other private borrowers do borrow the money and the money is actually created and used, obviously you would have an increase in the private sector. That is also an assumption that the money would be borrowed by somebody in the private sector.

Mr. LEONTIEF. In the total amount of borrowing that takes place in this country, the Government borrowing is just one item. There is a great amount of borrowing going on all around; so if we discuss the balance between borrowing and not borrowing, you can shift from one item to another.

Representative BROCK. You are saying—and this is where I disagree with you—that if the Government were to reduce its borrowing, this \$19 billion deficit, if we wiped out the deficit simply by not involving ourselves in Vietnam anymore, that you would have a commensurate increase in private borrowing, and I can't follow the logic, because it seems to me that if the Government stopped this \$19 billion expenditure, it would be a drag on the economy and there would be a tendency for private borrowers to borrow even less. I do not see private borrowing taking the place of public borrowing, if we were to get out of Vietnam.

Mr. LEONTIEF. Oh, Mr. Congressman, I think we can now get together on that. I see now what you have in mind. If the Government actually decided to reduce its expenditures by so much, and if there were no increase in other spending, this country would be plunged into a very serious depression.

Theoretically, if all the prices were cut, you could maintain the old level of effective demand, but, of course, as we know, such things don't happen nowadays, so we would really have a serious depression. This is why I think the Government would have to go pretty carefully about doing that, if it wants to maintain full employment.

Representative BROCK. In other words, if I can summarize you now, you are saying that you would very much oppose alternative No. 1, the hope that the private sector would assume the burden, that you would rather go through alternative No. 2, and maintain a \$19 billion deficit on through the transition stage, in order to preclude such a depression; is that correct?

Mr. LEONTIEF. Yes; my feeling is that if the American people felt that it was worthwhile for them to undertake this deficit in order to achieve whatever objectives they are pursuing in Vietnam, it certainly should be worthwhile for them to enter into that deficit, in order to achieve the objective which I described by this public expenditure block there on graph 1, refined in greater detail on graph 2 showing the advance of Great Society programs. This, of course, is my personal opinion.

Representative BROCK. I think, Professor, what I am trying to say is that in trying to assess not only what might happen in the future, but what we ought to do today, we are posed with a number of alternatives, each of which is impractical or unfortunate in its result.

If we take your second alternative and spend the money at the Federal level, affecting a \$19, \$20, or \$25 billion deficit, and that results under full employment, as I think it would, and a tremendous increase in the level of prices in this country and inflation, then you are affecting our balance-of-payments problem, and we are back on the other horn of the dilemma.

I am not quite sure how we get around this dilemma. I am not quite sure how we address ourselves to the problem that is affecting the ordnance, aircraft, and related industries in this transition period. I am not sure how your Government spending would allow us to get through this phase.

Mr. LEONTIEF. In this second variant, as shown on exhibit 1, while expanding various Government programs, we also turn back a very large amount of money to the private sector.

Representative BROCK. If it is spent. You are turning back a deficit that they have to borrow.

Mr. LEONTIEF. All right; but nobody seems to object to private borrowing. I never heard anybody attacking the banking operations of this country, releasing credit in the same way as sometimes the public—

Representative BROCK. Private borrowers are going to base their borrowing decisions upon whether or not they think the economy is in good shape, and they are not going to borrow if they think it is.

My time has expired. You can answer in those terms.

Mr. LEONTIEF. Yes. My feeling is that at the present time the private sector has a greater confidence in the ability of our economy to manage itself, through cooperation between the private and the public sector, than it used to be in the old times.

From this point of view, I am rather confident that if the type of analysis presented in our statement is elaborated upon, worked out in full detail and made public, so that the people know what they are facing, it will be possible to maintain the confidence of the private sector and its full readiness to play its part in the simultaneous realization of both private and public goals.

According to our computations, in many industries, we can expect a considerable increase in demand, in output, and employment.

The result of that will be that private business will have confidence, and whenever private business has confidence, and faces increasing demand, it will naturally turn to private sources of credit, and since the bankers will have confidence they will readily provide the money.

Here, indeed, the posture which the Government will take in formulating and revealing its plans—and in answering the type of questions which you have raised—will affect the chances of a smooth transition, too.

In presenting the two possible alternatives, I gave only an illustration. Other more effective variations could be worked out.

Chairman PROXMIRE. Congressman Bolling?

Representative BOLLING. No questions.

Chairman PROXMIRE. Senator Javits?

Senator JAVITS. Mr. Chairman, I have just arrived to find the witness and the charts and the testimony which he prepared already underway. If I ask a question which has been asked before, I hope that he will so inform me.

Did the witness make any estimate of the increase in the unemployment rate—which is now roughly a little under 4 percent—which would result by a cessation of the Vietnam war?

Chairman PROXMIRE. He made the assumption, in response to a question which I asked, that it would be the same level.

Senator JAVITS. The same level of unemployment.

Mr. LEONTIEF. Senator Javits, the presentation which I made is based on the assumption—suggested to me by the chairman of this committee—that all necessary measures will be taken to reemploy the resources released from military uses in supplying to a greater extent our pressing civilian needs, so that full employment will be maintained.

If we simply dropped the military part and did not provide for an increase in other demand, we would have, of course, a rather substantial increase in unemployment. However, even if we maintain full employment, a considerable change in the employment pattern and a shift from one region to another will have to be expected.

There will be some parts of the country in which, despite the fact that the total employment for the country as a whole is maintained, a considerable drop is bound to occur. California is a very typical case.

As you can see on exhibit 4, in many regions the downward looking bar is larger. In other words, there will be a net loss in employment. Let us see what happens in New York. New York apparently still has a civilian-oriented economy. So far as New York is concerned, under the first assumption, you see that this block directed upward, which measures the increase in employment, is longer than the downward stretching bar that measures losses in employment. However,

many States, such as California and Florida, will face serious problems.

Senator JAVITS. I gather you think we ought to provide for mobility of such people? In other words, if there is better opportunity elsewhere we must provide for this.

Mr. LEONTIEF. Yes. I think first of all, we should estimate what the situation is likely to be, and then begin to provide to take care of it, both on the Federal and the local government levels.

I think local government should be alerted to the situation, since the burden very often of decision and action will be there. For example, it is very important to translate these employment figures in greater and more detailed figures by types of jobs. Figures are actually available which will show us what kind of people—will it be technicians, foremen, will it be mostly semiskilled labor—might be affected by this shift.

When we release some people from the Army, these people have certain skills and don't have some other skills. There will be quite a problem finding the most effective use for them.

Senator JAVITS. Do you have any concrete recommendations for us, or are you just telling us that there are two alternatives, and what will happen?

Mr. LEONTIEF. Senator, just a short time before you came in, under questioning of the chairman, I discussed what action should be taken. In this case, obviously, action must be preparatory. The country usually has war plans. The country should also have peace plans.

Senator JAVITS. Thank you very much.

Thank you, Mr. Chairman.

Chairman PROXMIRE. Senator Miller?

Senator MILLER. Thank you, Mr. Chairman.

Dr. Leontief, yesterday the committee received some testimony from Professor Suits of Michigan. I am going to quote from his statement. He said:

The rise in war spending from an annual rate of \$48.2 billion in the first quarter of 1965 to the rate of \$65.5 billion in the last quarter of 1966 represented a total increase of \$17.3 billion. Taking account of induced consumer expenditure, this increase was responsible for a total rise of \$32 billion in annual GNP, and for roughly 3.2 million additional jobs.

Would you agree substantially with that statement?

Mr. LEONTIEF. I did not have the benefit of studying the underlying computations, so I could not really say yes or no. I think that the general order of magnitude involved sounds plausible. Of course, I did not hear anything in it about the price level, and this is one of the important things, because whenever we speak of increased expenditure or increased income, we would like to know what it means in real terms.

In my computations, all inputs and all outputs were measured in constant base-year prices. In other words, all changes shown on the charts depict increases and decreases in the actual amounts of goods and in levels of employment. If prices were to go up or down, the dollar figure will be larger or respectively, smaller.

Senator MILLER. More specifically, his approach was this. He said that according to Michigan University studies, they reached the conclusion that each dollar of war outlay stimulates about 85 cents of

additional output in the GNP, and that is how he got the \$17.3 billion additional Federal expenditures resulting in an increased GNP of \$32 billion.

Then he suggested that for each \$10,000 of additional GNP, there is one job, and that is how he arrived at the 3.2 million additional jobs generated by the Vietnamese war expenditures. Does this approach sound reasonable to you?

Mr. LEONTIEF. You know, a professor from Harvard should not criticize a professor from Michigan, but the statement impresses me as being rather broad. I would say it makes a very great difference whether 10,000 of additional dollars were spent on planes or on school buildings, on munitions or on wearing apparel. And the number of jobs created per \$1 million of output differs from one type of final demand to another. It is this differentiation that my analysis brings out. As a matter of fact, I would be very skeptical of the success of policies which were designed with all attention centered on the very broad averages which you quote.

For example, the total employment could remain constant, but you might have very serious unemployment in California, and at the same time run into labor shortages in the States which, like Montana, seem to be depending on civilian rather than military demands.

As you know, most transitional situations are bottleneck situations. Averages conceal bottlenecks. When you go from a peacetime to a wartime economy, it is not enough to transfer the dollars, one must have the specific industrial capacities in the right places with the right people to man them. The same is true of an anticipated shift in the opposite direction—a shift from war to peace.

This is why I say that the statement you quoted is all right as far as it goes. But my concern would not be with these average figures, but with the discovery of and preparation for dealing with bottlenecks, and there I would urge a much more detailed and specific type of analysis. Many of the practical measures aimed at securing full employment will have to be quite specific too.

I happen to believe that deficit spending is not a cure-all. As likely as not, you will run into bottlenecks, and if you are pumping out money and hit bottlenecks, what do you have? A price rise.

The difference between inflation and an orderly adjustment has its counterpart in the difference between analysis and economic reasoning which centers all attention on aggregated purchasing power, overall fiscal policies, and, on the other hand, more detailed specific analysis that takes into account the differential impact of alternative bills of goods.

Senator MILLER. May I say I agree that a more specific detailed analysis is preferable. Do you have any estimates as to how many additional jobs have been generated as a result of the \$17.3 billion additional cost, through defense expenditures?

Mr. LEONTIEF. I do not have these figures here on hand, but I would think that the number of jobs would be between two and a half and three and a half million.

Senator MILLER. If you would care to, would you do a little further research on that, put a few figures together, and submit them to the committee? Would that be feasible for you to do that.

Mr. LEONTIEF. I would certainly endeavor to supply you with these figures. I will have to go abroad in 3 days, and I will be back only at the end of May. However, I will ask one of my collaborators to make the computation and send you the results.

(The material requested had not been received at time of publication of these hearings.)

Senator MILLER. May I say, Mr. Chairman, I can see where he might have a problem getting his computations to the committee in time for the hearings, but I think we would appreciate it if you could perhaps contact Professor Suits and find out what kind of research they did. I am sure this would not be unusual for you to do so. And give us a little evaluation, and possibly, if you have a more detailed approach, you may be able to give us some more refined figures on the unemployment, or the employment generated by the \$17.3 billion of additional defense expenditures. I, for one, would appreciate getting something like that from you.

Mr. LEONTIEF. May I ask whether you have by any chance the advanced text of my statement before you?

Senator MILLER. Yes, I do.

Mr. LEONTIEF. In the appendix, you will find a table of percentage changes in employment by sector (p. 247).

Senator MILLER. I see that.

Mr. LEONTIEF. Here you see the anticipated changes in employment computed for each industry in percents of the base-year, that is, 1967 figure. To translate these percentages in man-years, we only need the total base-year figures.

In some industries, employment will tend to increase, in some others to decline. You see there is an increase of around 3 percent across the board, while the decreases are rather unevenly distributed. This gives us a clue to the anticipated answer.

I certainly will be glad, Senator, to give you the missing base-year figures.

Senator MILLER. I would appreciate it if you could do that.

Mr. LEONTIEF. Certainly.

Senator MILLER. One last question. Is there any significance on the map that you have up there as far as my State of Iowa is concerned? It appears to be about half size.

Mr. LEONTIEF. You see, Senator, we worked not by separate States, but by groups of States. Iowa is a part of such a group. So far as my horoscope can tell, Senator, you should really vote and work for immediate deescalation, because, as you can see from my map (exhibit 4) if the first variant is used, in your State many new jobs will be created and few will be lost. By contrast, a Senator from California or New Mexico would have to be very public spirited to be against the war.

Furthermore, I am sorry to see that—so far as Iowa is concerned—the first variant is employmentwise somewhat better than the second: If the entire expansion in civilian demand is allocated to the private sector, your State will gain relatively more jobs than in the second case, where the Great Society programs get a bigger bonus.

On the other hand, Iowa might possibly gain a little less in jobs, but with your help, Senator, it might get a lot of Federal money for education, health, and so on, which under the first variant could not happen.

You see, by this type of analysis, one could open an office to give special voting advice to Senators and Congressmen.

Senator MILLER. I just wanted to make sure this wasn't a Harvard view of Iowa.

Mr. LEONTIEF. No, I don't think so. As a matter of fact, I very often go to lecture and help with the regional economic work being done in the Middle West. Some of my former students and best friends teach at Ames.

Senator MILLER. Thank you very much.

Chairman PROXMIRE. We have taken a great deal of time, but with a most distinguished and enlightening as well as entertaining witness. We have two other gentlemen coming before us. Before you conclude, Professor Leontief—and I would like you to stay at the witness table—I want to just for the record say that Professor Suits yesterday made it absolutely clear that this projection that he showed for what would be the situation on employment or unemployment in the fourth quarter of 1966, which I think he had at 7.7 percent, absent Vietnam, was strictly on what he called an "absolutely hypothetical and artificial assumption," that we would not change our tax policies, our other spending policies, or our monetary policy. He did this only to show as dramatically as he could the effect of Vietnam on employment under those circumstances. He agreed that we certainly would not follow such policies if absent Vietnam, and he agreed with me on the basis of questioning that there was no reason at all why we shouldn't have the same low level of unemployment absent Vietnam that we have at the present time.

I want to say that you have been a great witness in many ways, and I want to thank you especially for this tremendous work that you did. I don't know if the art work would be rated A by you, but certainly the substance is rated A-plus by us.

I want you to stay at the table. Our next two witnesses are Mr. Madden, of the U.S. Chamber of Commerce, who is a friend of the committee and a distinguished economist, and I know he will be very helpful to us, and Mr. Goldfinger, another great friend of the committee and a fine economist, who represents the AFL-CIO.

We are delighted to have you gentlemen here. Mr. Madden, you may proceed. I apologize for detaining you so long, but that is the way these things go.

STATEMENT OF CARL MADDEN, CHIEF ECONOMIST, CHAMBER OF COMMERCE OF THE UNITED STATES

Mr. MADDEN. It is a pleasure to be here before the Joint Economic Committee. I thank you for the opportunity.

COMPARISON WITH KOREAN WAR

In seeking to assess the economic repercussions of the recent increase and future decrease in defense spending incident to Vietnam, comparisons with the Korean war are inevitable. Outbreak of the Korean war in 1950 boosted our annual spending for defense and related programs, as measured in 1963 dollars, by \$25 billion to a rate of \$45 billion in 1951 and a maximum of \$65 billion in 1953.

Most of the increased spending went for military equipment and other goods and services bought from the business sector. Reduction in 1953-54 by \$11 billion in this type of spending was a leading factor in the 1954 recession. So concern about a recurrence of a similar business setback following cessation of hostilities in Vietnam is both understandable and justifiable.

But there were significant differences during our Korean engagement compared to Vietnam that greatly reduce the likelihood of such a recurrence of recession following termination of the "hot war." The list of these differences is quite impressive. The pace of military buildup was considerably faster during the Korean conflict, causing severe shortages. Despite last year's acceleration of defense spending, our buildup in Vietnam has been gradual and has not as yet precipitated any drastic economic dislocations, aside from some inventory pileup and skilled manpower shortages.

Consumer prices rose more sharply during the Korean war, despite the controls enacted early in 1961. Increases in industrial production were also more marked as compared to the period since mid-1964. Corporate profits and business capital spending fell during the third year of the earlier conflict, while both of these important economic variables have recently only begun to level off. Personal income, on the other hand, has behaved in a similar fashion—rising steadily during both escalations. Finally, compared to a Korean war peak of 13.5 percent, national defense expenditures are still only about 9 percent of gross national product, despite the intensification of hostilities in Vietnam. This ratio has been rising—but only slowly—since early 1964.

In short, barring a considerably greater commitment of resources to defense purposes than seems likely, our growing economy should be able to handle comfortably both the economic demands of the war in Vietnam and a deescalation. An orderly adjustment to military deescalation will be even more likely if, as is widely anticipated, a Marshall plan type of foreign aid to Vietnam is substituted for military expenditures following the termination of the war.

THE DISLOCATION PROBLEM

The foregoing does not mean that the national chamber of commerce is unmindful of dislocations in particular communities and regions heavily dependent on defense orders that would necessarily result from order cancellations or cutbacks. This is the "disaggregated" kind of deescalation effect that certain cities and regions went through with varying degrees of success following cancellation of the Skybolt and Dyna-Soar projects in 1963, the phaseout of production of the F-105 fighter-bomber, and the closing of many military installations.

Subsequent studies done for the U.S. Arms Control and Disarmament Agency¹ have borne out the earlier conclusion, arrived at by general economic analysis, that these kinds of adjustment differ only in degree from those constantly facing the economy in connection with

¹ See attached list.

adjustment to technological change and structural shifts in the demand for various labor skills.

This was one of the major conclusions reached in a national chamber of commerce study entitled, "The Economics of Defense Spending," published in February 1965, and subsequently verified by the report of the Ackley committee on "The Economic Impact of Defense and Disarmament" that appeared in July 1965.

Each of these reports recognized the regional and local economic dislocations precipitated by changes in both the level of defense spending and in the procurement mix. But each study also indicated that if there is a national problem associated with a decrease in defense outlays, it relates more to economic growth than to business cycle developments. A growing economy provides the best environment for an orderly transition from wartime to peacetime production for the more heavily involved communities:

Although these reports were written 2 years ago when defense spending played a smaller relative role in the economy than at present and the private sector was growing more rapidly, the conclusions arrived at still appear to be valid. This is because the current softness of the economy is traceable to developments in the private sector primarily—a slower rate of consumer buying in the housing and durable goods markets, an inventory overhead, and a sharp deceleration of fixed investment spending by business.

Mr. Chairman, I would like to submit for the record at this point a copy of the national chamber study, "The Economics of Defense Spending."

Chairman PROXMIRE. Without objection, that will certainly be very valuable to us.

(The study referred to follows:)

THE ECONOMICS OF DEFENSE SPENDING*

INTRODUCTION

During the past decade the American people as a whole and a segment of the economy in particular have grown accustomed to national defense expenditures ranging between \$48 billion and \$56 billion a year. An uptrend from 1960 to 1963 was partly reversed in 1964, foreshadowed by certain headline-catching program cancellations, especially the Skybolt and Dynasoar projects in 1963. Prospects are for a levelling-off, followed by a slow decline in defense spending in the next ten years or so.

Over time, society will benefit from having some of its scarce resources now devoted to defense transferred to the civilian economy to satisfy proliferating needs for more and better schools, housing, highways, medical service, and the like.

But it is understandable that questions have been raised about the economic effects of defense cutbacks. For example, how serious have the economic adjustments been so far? Will a levelling-off and possible decline in overall defense outlays precipitate a business recession? What of the implications for unemployment? Will companies and localities heavily involved in defense activities be able to adjust to civilian production? Can defense/space research and development resources and output be adapted to civilian uses?

This report, primarily the responsibility of Dr. Richard Landry of the National Chamber staff, is a summary of the views of leading authorities on the questions posed above, and it suggests the relative importance of the questions.

ROBERT S. MACFARLANE,

Chairman, Committee on Economic Policy.

*A report by the Committee on Economic Policy of the Chamber of Commerce of the United States. Washington, D.C. February 1965.

DEFENSE SPENDING AND THE ECONOMY

At their peak in World War II, defense requirements absorbed almost half of total and 80 per cent of durable goods output.¹ Understandably, apprehension was widespread that post-war reconversion of industry to civilian production would plunge the economy into deep depression, especially since most of the wartime increase in production had come from previously unemployed manpower and machinepower.

But the opposite was the case.² Instead of deflation and depression there was inflation and a boom in business; and unemployment stuck at 4 per cent of the civilian labor force until the brief recession of 1949. The ease of the 1946-48 economic adjustment to reconversion and the buoyancy of the civilian economy during the Korean War presumably accounted for the absence of similar worries about reconversion at the War's end in 1953.

Discussion has recently flared up, however, regarding the economic problems of defense spending, evoked in part by the attainment of "overkill" capacity by both the United States and the USSR and by the 1963 Nuclear Test Ban Treaty between these two powers. The current debate stresses certain features of our present defense program, some of which are encouraging and some are not.

Among the encouraging aspects are the facts that (1) defense expenditures are a much smaller proportion of total economic activity currently as compared with 1945, accounting for less than 10 per cent of Gross National Product (in 1945 the figure was 40 per cent); and (2) between 1945 and 1946 national security expenditures were reduced by 80 per cent (measured in 1960 dollars), whereas current indications are that there will be a gradual tapering of such outlays on the order of 30 per cent over a twelve-year period and from a smaller relative base.

On the other side of the picture, however, current defense procurement is highly concentrated with respect both to type of industry and geographical region. Furthermore, a large share of defense work is being done by specialized contractors who have never produced for the civilian market. Thirdly, unlike the 1946-48 situation, since 1959 the national unemployment rate, until quite recently, regularly exceeded 5½ per cent. Finally, according to the calculations of the President's Council of Economic Advisers the economy has grown at a slow rate since 1955, causing it to fall 5 per cent short of its full-employment potential.³

The first two points invite a favorable comparison with the post World War II readjustment to disarmament. Although the remaining points imply a novel type of readjustment problem, different in character from the 1946-48 and 1953-54 transitions, their magnitude is questionable. For example, regarding economic growth, real GNP is likely to show a gain of 5 per cent in 1964 from the 1963 level serving to narrow the gap between actual and potential GNP.

The purpose of this booklet is to discuss these problems and assess their importance in the light of the current literature on the subject.

THE NATURE AND EXTENT OF DEFENSE EXPENDITURES

Outbreak of the Korean War in 1950 boosted our annual spending for defense and related programs in 1963 dollars by \$24 billion to a rate of \$45 billion in 1951 and to a maximum of \$65 billion in 1953. Most of the increase went for military equipment and other goods and services bought from the business sector. Reduction in 1953-54 by \$11 billion in this type of spending was a leading factor in the 1954 recession. Since that time Cold War tensions have caused these outlays to rise from \$49 billion in 1955 to \$56 billion in 1963, with only slight fluctuations in the intervening years.⁴ The rate in the first half of 1964 was substantially unchanged from 1963.

The trend of defense expenditures (in dollars of 1963 purchasing power) for the period 1947-64 is shown on Chart I, below:

¹ Herman E. Krooss, *American Economic Development*, Prentice-Hall, Inc., New York, 1955, p. 463.

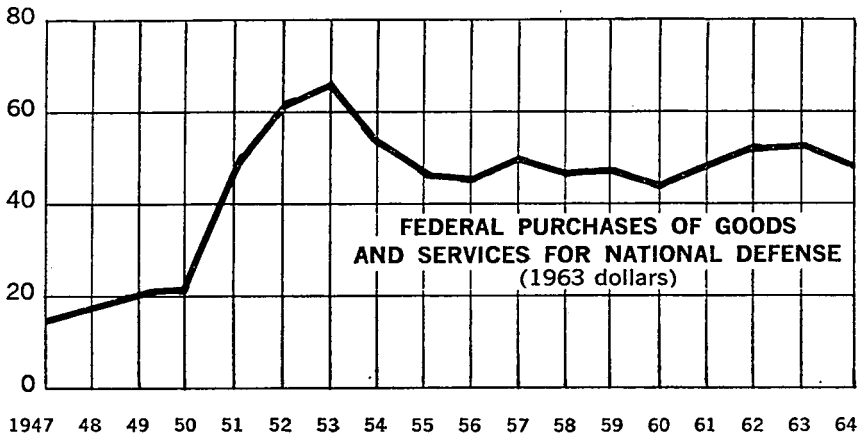
² For an evaluation of this development, see W. S. Woytinsky, "What Was Wrong in Forecasts of Postwar Depression?" in *Journal of Political Economy*, April 1947.

³ *Economic Report of the President*, Washington, D.C., January 1964, Chart 4, p. 38.

⁴ Emile Benoit and Kenneth Boulding, Eds., *Disarmament and the Economy*, Harper & Row, New York, 1963, pp. 272-273; *Manpower Report of the President*, Washington, D.C., March 1964, pp. 155-156; U.S. Arms Control and Disarmament Agency, *The Economic and Social Consequences of Disarmament*, Part II, Washington, D.C., July 1962, pp. 7-8; *Econ. Report of Pres.*, *op. cit.*, p. 209.

Chart I

Billion dollars



SOURCE: U. S. Department of Commerce.

About four-fifths of defense prime contracts of \$10,000 or more awarded by the Defense Department in fiscal 1962 went for military hardware, including missiles, electronic devices, and transportation equipment, along with associated developmental costs.⁵ The resulting concentration of defense procurement in five industries—aircraft and parts, communications equipment, electronic components, ordnance, and shipbuilding—makes each especially vulnerable to shifts in the defense product-mix or a cutback in overall procurement. By the same token, because all of these industries, excepting communications, equipment, cluster in specific regions, the local and regional impact of such changes could be severe.

In 1960 all of the employment in ordnance work, 93 per cent in aircraft and missile construction, 60 per cent in ship and boat building, and 38 per cent in communications equipment was attributable to defense procurement. In 1963, compared to 1958, employment was 17 per cent lower in the aircraft industry, but 90 per cent higher in ordnance, 48 per cent higher in electronic components, and 46.5 per cent higher in communications equipment.⁶

Geographically, the areas most affected by defense industry (accounting for over 10 per cent of state nonagricultural employment) are Alaska, California, Washington State, Virginia, Connecticut, New Mexico, and Utah, Massachusetts and Hawaii also have close to 10 per cent of their nonagricultural employment so involved. Table I, below, shows a finer breakdown by counties, although on the different basis of dollars of prime contracts per capita.

A caution is in order regarding prime-contract data: they can be misleading. Not only do they fail to indicate the extent of subcontracting, but also much of the work is subcontracted to companies in other states. These considerations imply a lesser geographical concentration of defense work than is suggested by Table I and the industry and company concentration suggested by Appendix Table I.

As Dr. Murray Weidenbaum has recently pointed out, the Federal Government is trying to improve information on the economic impact of defense/space programs in the following ways:⁷

⁵ *Manpower Report, op. cit.*, p. 156.

⁶ Joseph F. Fulton, "Employment Impact of Changing Defense Programs," *Monthly Labor Review*, May 1964, p. 510.

⁷ See Murray L. Weidenbaum, "Measuring the Economic Impact of Defense/Space Expenditures," a paper presented at the Eleventh Annual Conference of the Missouri Research and Development Council, Denver, Colorado, October 20, 1964 (processed), pp. 5-6. See also *Productive Civilian Uses of Former Defense Department Installations*, U.S. Department of Defense, Washington, D.C., November 1964, (a 32 page pamphlet).

TABLE I.—15 counties most heavily dependent on defense prime contracts, 1960

County	Prime contracts per county (millions of dollars)	Population (thousands)	Prime contracts per capita dollars
Box Elder, Utah.....	72.9	25	2,916
Fairfield, Conn.....	228.7	97	2,357
Tioga, N. Y.....	88.3	38	2,323
Ellmore, Idaho.....	39.1	17	2,300
Stephens, Tex.....	17.6	9	1,955
Newport News, Va.....	220.6	114	1,935
Montgomery, Ala.....	54.6	33	1,654
Arapahoe, Colo.....	178.9	113	1,583
Sedgwick, Kans.....	488.0	343	1,422
Santa Clara, Calif.....	775.9	642	1,208
Morris, N. J.....	239.9	262	1,106
Coffee, Tenn.....	31.0	29	1,068
Cobb, Va.....	115.0	114	1,008
Burlington, N. J.....	221.3	224	987
Grant, Wash.....	43.8	46	953
Total United States.....	21,004.3	179,323	117

SOURCE

Data from Walter Isard and James Ganschow, "Awards of Prime Contracts by County, State and Metropolitan Area," Philadelphia: University of Pennsylvania, 1962.
 "Disarmament and the Economy," eds., Emile Benoit and Kenneth E. Boulding, Harper & Row, New York, 1963, p. 48.

1. The Census Bureau is asking a sample of companies at the three or four-digit level in the Standard Industrial Classification Code to estimate their sales to DOD, NASA and AEC, among other agencies, and the resulting employment. The sample includes both prime and subcontractors.

2. The U.S. Arms Control and Disarmament Agency is financing studies on the impact of adjustments to changes in defense/space spending in the electronics and shipbuilding industries and in certain regions, including New Mexico and the Baltimore and Seattle areas.

3. The ACDA is sponsoring case studies of previous attempts to adapt defense technology to civilian use.

4. The U.S. Department of Labor, with ACDA assistance, is studying the patterns of defense worker adjustments to particular defense cutbacks, such as the Dynasoar cancellation at Boeing and the phase-out of production of the F-105 fighter-bomber by Republic Aviation in the Nassau-Suffolk area of Long Island.

ESTIMATES OF THE SIZE OF THE NATIONAL PROBLEM

In the rapidly growing literature on the economic effects of disarmament there are writers, like Dr. Weidenbaum, who have considered the probable consequences of "a total elimination of the defense program in the 1960's, in the absence of compensating or offsetting programs."⁸ Operating with this admittedly unrealistic assumption, Dr. Weidenbaum has concluded that, because of a less exuberant business climate than in 1946 and a greater concentration of defense contracts in specialized facilities not convertible to civilian production, "the adjustment to disarmament would be even more difficult than the reconversion following World War II."

On the other hand, the 1962 Report of the Panel on Economic Impacts of Disarmament, chaired by Emile Benoit of Columbia University, projected a gradual reduction in defense spending of \$32 billion over a 12-year period, starting in 1965, with about \$6 billion of decrease each year during the first three years and an even spreading of the remaining \$14 billion over the 9 years following.⁹ However, if account is taken of the offset provided by costs of inspection forces and buildup of the National Aeronautical and Space and Civilian Atomic Energy programs, the total reduction becomes \$22 billion instead of \$32 billion.

⁸ Murray L. Weidenbaum, "Industrial Impact of Disarmament," *The American Journal of Economics and Sociology*, October 1963, p. 526.

⁹ E. Benoit and K. Boulding, *Disarmament and the Economy*, op. cit., pp. 36-38.

Based on potential real GNP of \$645 billion in 1965 and \$970 billion in 1977,¹⁰ a defense reduction of \$22 billion would amount to considerably less than 4 per cent of GNP, although such a reduction could represent about 7 per cent of the growth in GNP during the period. This would be true even if the Council of Economic Advisers' estimates of GNP were on the high-side due to the building into their projections of too large defense outlays.

The Benoit group's estimates were made on the assumptions that disarmament would begin in 1965 and that military spending would be approximately \$60 billion that year. The \$32 billion cutback would break down into a \$22 billion reduction in government procurement and a \$10 billion decrease in payrolls. The multiplier effect could magnify this spending decline into a GNP decrease of as much as \$48 billion over the entire 12-year period. The corresponding decline in employment would be 5 million.

In a more recent analysis¹¹ Dr. Benoit has stated that in contrast with the post World War II conversion, "the economy has become much more vulnerable to the deflationary influences that would be generated by any major defense cuts." He holds the following factors responsible for this circumstance: (1) a lower ratio of money supply to GNP than in 1945—27 percent in 1962 compared to 47 percent in 1945; (2) greater vulnerability of consumer indebtedness, which has risen to almost 16 percent of disposable personal income from 5 percent in 1945; (3) greater vulnerability of stock market prices to corporate income declines, because of high and rising stock price-earnings ratios; (4) "substantial" excess capacity throughout the economy; and (5) a "troublesome amount of continuing, stubborn unemployment."

At the opposite extreme from the Weidenbaum-Benoit position, Dr. Grampp of the University of Illinois estimates that federal government spending under disarmament conditions would not decrease by anything like \$32 billion in the next twelve years. His "guesstimate" is \$8 billion. This figure is calculated as follows: (1) an upswing from \$18 billion to \$27 billion in U.S. spending on its national force and contribution to the United Nations; (2) increase from \$10 billion to \$20 billion in spending on space projects and atomic energy; and (3) a rise of \$5 billion in expenditure on "other forms of rivalry" resulting in total annual defense spending of \$52 billion, compared to an estimate for 1965 of about \$60 billion.¹²

THE REGIONAL AND LOCAL ECONOMIC PROBLEM

A 1963 survey by the Seminar on Industrial Conversion at Columbia University that covered concerns in New York, New Jersey, Massachusetts, Colorado, California, and Washington State found that close to 67,000 workers had recently been laid off or were scheduled for layoff by 19 major defense contractors. In commenting on the results of the survey, Professor Seymour Melman pointed to the concentration of layoffs among highly skilled workers as indicating "the special problems of converting from military to civilian work."¹³

Illustrative of this problem are the results of a study also made in 1963 of four large firms that had recently succeeded in making the transition from defense work to civilian production. The authors' general observation was that "at best it is difficult to make such a transition."¹⁴ Identified as success factors were: picking a product with which the company was familiar; establishing a separate organization for the civilian product; and giving greater emphasis to sales activities and customer service than previously. (when Uncle Sam was the only customer).

Distinguishable from but related to the problems of a privately initiated conversion from government work to output for the civilian market, are the instances of shorter-term community "crash" programs that have attempted to offset the effects of suddenly terminated defense contracts or military installations. Donald Bradford, Director of the Office of Economic Adjustment in the Department of Defense, in testimony before a Senate Subcommittee on November

¹⁰ Estimated on the basis of the Council of Economic Advisers' 3½ per cent trend line through the middle of 1955.

¹¹ Emile Benoit, "Defense Cutbacks and the U.S. Economy," *Business Scope*, Cambridge, Massachusetts, May 2, 1964.

¹² William D. Grampp, "False Fears of Disarmament," *Harvard Business Review*, January-February 1964, p. 179.

¹³ *New York Times*, March 26, 1964, p. 10.

¹⁴ Harold E. Fearon and Ralph C. Hook, Jr., "The Shift from Military to Industrial Markets," *Business Topics*, Indiana University, Winter 1963, pp. 50-51.

7, 1963, cited several such cases—among them Presque Isle, Maine; Wichita, Kansas; Farmingdale, Long Island; and Roswell, New Mexico—all of which adjusted successfully to sharp and sudden cutbacks in local defense activity, primarily through the development of industrial parks and attraction of new firms. To this list should be added the lesser successes of Santa Monica, California, in connection with the sudden cancellation of the Skybolt program in January 1963, and Seattle, Washington, with regard to the December 1963 cancellation of the Boeing Company's Dynasoar project.

Citing the experiences of Wichita, Kansas, and Los Angeles, California, one writer has noted that "large diversified cities are inherently less vulnerable to major shifts in industrial activity than smaller cities overly committed to a narrow range of industries and skills."¹⁵ But he considers the outlook bright even for small cities, provided they have a skilled labor force, good public services, and vigorous community leadership.¹⁶

THE CURRENT READJUSTMENT PROCESS

Mention of these instances of economic dislocation to which accommodation was made with varying degrees of success points to the fact that there is already underway a readjustment to the changed pattern of defense/space procurement. Emphasis in the procurement process has shifted from manned aircraft and ships to nonmanned craft and missiles, to aerospace and now space exploration vehicles. Although the national impact of such procurement changes is not appreciable because reduced economic activity in closed-down areas is offset by expansion in opened-up areas, local dislocations are similar to what might be expected from an overall cutback in defense spending.

Even should total defense spending decline, however, overall federal spending probably will not.¹⁷ Witness the Johnson Administration's effort to use the "savings" of defense cutbacks in the fiscal year 1965 budget for its \$1.9 billion anti-poverty and Appalachian regional programs.

The implication of this point is clear: it is impractical to talk about the economics of disarmament in a vacuum. Our present knowledge of the Defense Department's plans suggests the reasonableness of making the following three assumptions as to the economic effects of cutbacks in defense spending:

1. The process will be gradual.
2. The economic problems involved are more likely to be local and regional rather than national in scope.
3. The principal economic problems will not differ in kind, though they may in magnitude, from those facing the economy in its continuous adjustment to technological change and structural shifts in the demand for various labor skills.

Support for this view is found in the March 1962 United States reply to the inquiry of the Secretary-General of the United Nations regarding the economic and social consequences of disarmament, which notes that, "in the absence of specific details on the timing, phasing and duration of a disarmament program it is . . . not possible to discuss the problems of adjustment except in general terms."¹⁸

The report then proceeds to discuss the "two basic problems of adjustment: (1) maintaining aggregate demand for the economy's output despite declines in demand for defense items, and (2) minimizing "hardships and waste as the human and material resources now devoted to defense find new uses." With respect to the first problem, the report notes that "a dollar reduction in defense spending would cause . . . about a dollar reduction in personal consumption." This estimate is based in part on recognition of certain of the built-in stabilizers of personal income in the economy, notably a lesser income-tax drain and higher unemployment transfer payments as national income declines.

Posing the aggregate demand question, however, appears to beg the question whether this will indeed be a problem, as we have already indicated. In fact, the report notes that¹⁹

¹⁵ C. T. Stewart, Jr., "Peace Trend Will Bring Better Business," *Nation's Business*, June 1964, p. 72.

¹⁶ Stewart, *loc. cit.*

¹⁷ This focus on Federal spending is not intended to play down the desirability of stimulating spending in the private sector—through further tax reductions, for example.

¹⁸ United States Arms Control and Disarmament Agency, *The Economic and Social Consequences of Disarmament*, Part II, *op. cit.*, p. 7.

¹⁹ *Ibid.*, p. 10.

“. . . the very fact that the timing, phasing, and likely duration of a disarmament program would be known well in advance to policy makers places the whole problem of providing for adequate demand offsets on a considerably more certain and favorable basis than is normally available for the development of counter-cyclical policy.”

In connection with the problem of structural adjustment the report is equally realistic:²⁰

“Actually the economy is constantly experiencing structural changes as a result of technological developments, the introduction of new products and services, population developments, and other factors.”

Apparently this is also the view of Gardner Ackley, Chairman of the Cabinet-level Committee on the Economic Impact of Defense and Disarmament. In testimony before the Senate Commerce Committee on June 22, 1964, Dr. Ackley said,²¹

“Some people misunderstood and exaggerate the potential impact of changes in defense spending, whether major or minor, and—particularly—underestimate our ability to deal with them.”

THE SPECIAL PROBLEM OF RESEARCH AND DEVELOPMENT

About 15 per cent of our defense outlays are for research and development (R & D), and more than half of R & D expenditures (including AEC military outlays but excluding NASA work) is financed by defense agencies. This is a novel and potentially disturbing aspect of the present defense program, since not only would a significant slide-off in defense outlays curtail employment of highly skilled manpower but also a sizeable cutback could deprive the civilian economy of the external economics flowing to it from military research with peacetime applications.²²

Based on the relative importance of governmental R & D expenditures, Dr. Richard Nelson has estimated that the percentage drop in R & D outlays would be about half as great as any drop in military expenditures. He has estimated further that “while a 50 per cent decline in defense spending would lead to a 23 per cent cutback in R & D spending, it would lead to only a 12 per cent cutback in employment of scientists and engineers,” since the defense R & D dollar hires a lesser number of R & D scientists and engineers than the nondefense R & D dollar, the difference being accounted for by a heavier materials outlay in military research.²³

As an additional optimistic note, Dr. Nelson has called attention to the fact that the impact of disarmament is likely to be considerably less on basic research (carried on outside government) than on applied R & D and that “the freeing of R & D resources would be one of the most important economic benefits of disarmament.”²⁴ This latter point reflects Dr. Nelson’s belief that

“a significant increase in R & D resources could be used in the civilian sector, with large benefit to society. . . . The civilian economy would benefit especially from increased long-range research and experimentation with advanced technological possibilities of the sort that the research teams presently employed by defense industries have conducted so successfully.”

In this connection a 1963 University of Denver Research Institute study on the value of space-related technology to the civilian economy showed that intangible spin-off (the transfer of technical information) is far more important than tangible spin-off (the transfer of products, processes, or materials).²⁵

This same optimism is sounded by Dr. Charles T. Stewart, Jr. of George Washington University who declares that “reduced spending for defense should release resources and income to satisfy a great number of nondefense wants, both private and public.”²⁶ He also makes the significant point regarding transferability of scientists and engineers from defense to civilian production that they are younger, better educated, more mobile, and, therefore, more adaptable to job conversion than are workers in other industries. However, as is mentioned

²⁰ *Ibid.*, p. 11.

²¹ *Washington Post*, June 23, 1964, p. D-6.

²² Richard R. Nelson, “The Impact of Arms Reduction on Research and Development,” *American Economic Review*, Proceedings, May 1963, p. 435.

²³ *Ibid.*, p. 439.

²⁴ *Ibid.*, p. 446.

²⁵ J. G. Welles and R. H. Waterman, Jr., “Space Technology: Pay-Off from Spin-Off,” *Harvard Business Review*, July-August 1964, p. 106.

²⁶ Stewart, *op. cit.*, p. 67.

elsewhere in his article, experience in the Los Angeles area following layoffs in the ordnance, electronics, and aircraft industries there, implied that although displaced aircraft workers found jobs it was probably at the expense of less skilled and experienced workers.

PRIVATE PLANNING FOR CONVERSION

Hearings held in the fall of 1963 by the Senate Subcommittee on Employment and Manpower regarded the civilian application of technology involved in defense and other government sponsored programs. The testimony touched on the question of industrial conversion from defense to nondefense work. Industrial representatives of companies with heavy defense commitments who testified were understandably cautious about the extent to which it would be possible for them to switch completely from defense to nondefense production. One company thought it would take many years before it could substitute commercial for defense work, although all of the companies that appeared had attempted to diversify into civilian lines.²⁷

Representatives of the Department of Defense (DOD) and the United States Arms Control and Disarmament Agency (ACDA) described a plan enabling DOD and ACDA to keep up to date on principal defense plants and Project 9-A that supplies current information on 150 plants in 75 communities accounting for about 40 per cent of procurement expenditures, the type most likely to feel the effect of defense cutback. It was also brought out that questions in the 1965 Census of Manufacturers will be asked of key companies on the economic impact of defense contracts.

What is the state of private planning for conversion, aside from that undertaken by the companies that answered the Subcommittee's invitation to participate in its hearings—Westinghouse, United Aircraft, Northrup Aviation, Lockheed, Hughes Aircraft, Aerojet-General, Martin Company, and Republic Aviation?²⁸ Posing this question makes two sizeable assumptions: (1) It assumes that private planning is possible or even meaningful to meet an event of unknown timing and size; and (2) it assumes that conversion of defense-oriented resources to civilian production is indeed feasible.

The results of a survey of large prime defense contractors made by Stanford Research Institute late in 1963 illustrates the difficulties of private planning for conversion.²⁹ The replies indicated that few of the companies surveyed had blueprints for diversification into civilian production in the event of Government contract termination. But it should be noted that the "planning" envisaged by the survey was quite precise. It meant a detailed description of alternative courses of action, identification of trigger points at which to initiate new plans, work on prototypes of new products, and assignment of at least one senior executive to this activity. (The slight extent of government planning is indicated on page 263.

Why was this so? The most frequent reason given was the inability "to plan for a catastrophe." It was frequently noted in the replies that the Federal Government should do more to advise industry well in advance of its intention to cancel contracts. The most important reason, however, appeared to be an expectation, based on experience, that cold war and space program requirements would prevent any drastic slash in defense and related procurement.

Strengthening this view has been the success of the major defense companies in shifting from aircraft to missile production.³⁰ Along this same line, Richard Rutter, writing in the *New York Times* for August 16, 1964 (Sec. 3, p. 10), indicates that "on the whole . . . the aerospace-defense industry is not only very healthy but still growing." A projection of 1964 sales at \$20.9 billion (compared to \$20.5 and \$20.6 billion in the two preceding years) breaks down into \$8.6 billion for aircraft, \$5.5 billion for missiles, \$4.9 billion for space vehicles and \$1.9 billion for nonaerospace products.

Small dips in aircraft and missile sales are being more than offset by small rises in space-vehicle and nonaerospace sales, including exports. Furthermore,

²⁷ Betty Goetz Lall, "Congress Considers Impact of Defense Reductions," *Bulletin of the Atomic Scientists*, February 1964, pp. 31-32.

²⁸ See Appendix, below, for the relative importance of defense to total sales for 35 major defense contractors.

²⁹ Referred to by Murray L. Weldenbaum in a talk at Brookings Institution, Washington, D.C., on July 28, 1964.

³⁰ See Murray L. Weldenbaum, "Can Defense Technology Be Used?" *Business Scope*, Cambridge, Massachusetts, July 1964, p. 2.

the presence of long-term projects in the work programs of some of the big prime contractors, such as North American, Lockheed, and Douglas, insulates them to some extent from annual fluctuations in the DOD budget.

TRANSFERABILITY OF RESOURCES FROM DEFENSE TO NONDEFENSE USE

Underscoring the foregoing is the fact that despite frequent forays into diversified commercial markets, defense-oriented companies have had disappointing sales and profits. The reasons may be summarized as follows:³¹

1. Low capitalization of defense contractors;
2. Little marketing capability;
3. Limited experience in high-volume, low unit-cost output;
4. A technical workforce unaccustomed to producing for a competitive market.

As Dr. Weidenbaum testified before the Senate Subcommittee on Employment and Manpower on November 21, 1963, aside from the handful of companies producing commercial aircraft (at little profit), the large defense suppliers have not been producing commercially beyond 1 or 2 per cent of total sales:³²

"The surviving efforts continue generally at marginal levels—either actually losing money, barely breaking even, or showing profit results considerably below military levels."

He noted the almost complete absence of personnel transfer from military to commercial work within the same company. The commercial departments of a defense company might be hiring engineers at the same time as its military department was laying off experienced technicians. There has been an inward movement of professionals and technicians from other industries and universities but no appreciable outward movement. In the aerospace industry, for example, between 1959 and 1963 production workers declined from 673,000 to 653,000 while the number of white-collar workers rose from 455,000 to 600,000.³³ In the six months ended March 1964, employment was down 10 per cent in missiles production and 1 per cent in aircraft, but up 11 per cent in space equipment over the preceding year.³⁴

It will be recalled that Dr. Stewart, in the *Nation's Business* article previously cited, referred to the "bumping" process that occurred in Los Angeles defense plants resulting from contract cancellations: less skilled workers lost their jobs as higher skilled workers took their places. Although some slack will be taken up by increased spending on the space program, a recent canvass of leading defense contractors indicated that this type of procurement was also expected to taper off.³⁵

THE LOCAL VS. THE NATIONAL PROBLEM

What is the principal economic problem of disarmament? Is it a problem of the level of national economic activity, or of local readjustments? The literature surveyed and the evidence available strongly suggest that it is the latter; and the prospect is that, with continued economic growth, the national problem will wane but not the local one. If there is a national problem, it is that of promoting vigorous growth while the local-regional problem will be to overcome barriers to the mobility of capital and the mobility and quality of labor so that these resources can be shifted to civilian use.

Resource transfer has both a local (regional) and national dimension. When Dr. Grampp writes³⁶ that the unemployment caused by curtailed defense production would cost society nothing if the labor and capital employed in defense industries had no alternative use, he is clearly referring to the national economy. Along this line he has noted that if labor, as the transferable resource involved, were to be absorbed into expanding civilian industries, the gain to the national economy would be about 5 percent of GNP.

Actually, the problem to which Dr. Grampp is addressing himself is the level of resource-use, not its industrial and regional pattern. As previously pointed out,

³¹ *Ibid.*, p. 3.

³² "The Transferability of Defense Industry Resources to Civilian Uses," a statement prepared for the Subcommittee on Employment and Manpower of the Committee on Labor and Public Welfare of the U.S. Senate, November 21, 1963, in the *Nation's Manpower Revolution*. Hearing of the Senate Subcommittee on Employment and Manpower, Washington, D.C., 1964, Part 9, p. 3146.

³³ Richard Rutter, *New York Times*, August 16, 1964, Sec. 3, p. 10.

³⁴ "Defense: Bad, But How Bad?" *Forbes*, July 15, 1964, p. 15.

³⁵ *Wall Street Journal*, July 7, 1964, p. 18.

³⁶ William H. Grampp, "Defense and Disarmament: Some Economic Surprises" *Michigan Business Review*, January 1964, p. 12.

it is the industry and regional patterns with their community industrial location overtones that appear to be the significant problem.

One influence neglected in the impact discussion so far has been the role of noneconomic factors. Political elements in defense prime contract awards have probably had some influence in setting the industrial location pattern of defense industry along with economic factors. Sub-contracting, on the other hand, undoubtedly reflects economic factors to a heavier extent.⁸⁷ Military strategic considerations have also played a role, of course. These considerations imply that where noneconomic factors have been significant in prime contracting, termination of these contracts may more seriously dislocate local industry than otherwise.

But from a purely economic viewpoint, the resource-impact effects of shifts in government demand for defense goods are indistinguishable from the effects of changing civilian demand for various products and services. If there is anything distinctive, it is the abruptness and relative magnitude of defense contract cancellations as compared to the gradualness of changes in civilian demand and the possibly lesser free-market competitiveness of production facilities utilized for defense purposes.

If national security considerations permit, a reduction in defense spending is clearly desirable. Society will benefit from having the resources presently employed in defense production shifted to producing more and better producer and consumer goods.

But what is the state of regional development plans that might serve to ease the transition from defense to nondefense activity?

PLANNING FOR READJUSTMENT

A study of such programs by the Committee for Economic Development (CED) revealed that privately financed expenditures on economic surveys were \$127 million and public expenditures were \$93 million in 1957. Yet, according to this study, local economic development is still in its infancy, and more money is being spent on promotion than on research and planning for better resource use. There is some evidence, though, of replacement of the time-honored industrial development approach by multipurpose, comprehensive programs.⁸⁸

A recently completed three-year study of the Pittsburgh metropolitan area indicates the scope and type of undertaking likely to produce results useful for regional development and economic growth of the kind implied in the CED study. As described by Professor Edgar M. Hoover of the University of Pittsburgh, the study director, the project is "in process of being translated into programs of action by appropriate agencies in the community."⁸⁹ Some of the more significant findings of the Pittsburgh study were:

1. The area's steel industry is overgrown relative to current comparative costs of delivered steel.
2. As a result, Pittsburgh steel mills must absorb more of transportation costs to compete at points of consumption with newer plants of competitors.
3. Compared to other industrial regions, Pittsburgh suffers from a relative lack of service industries.
4. The area has certain structural handicaps to new industry: the dominance of a few large firms providing their own services and a tendency for these firms to export capital to other areas.
5. Similarly, the area is handicapped by the export of industrial research findings to distant plants of the industrial giants located in Pittsburgh.
6. Industrial wage levels have been high compared to other regions, but service wages have been low.
7. Utilization of women in the labor force has been consistently low.
8. Unemployment has been chronic and above the national average.

Certain characteristics of the Pittsburgh metropolitan economy stand out when contrasted with the findings of the New York Metropolitan Regional

⁸⁷ Murray Weidenbaum has estimated that about half of prime contract work is sub-contracted: "Measuring the Economic Impact of Defense/Space Expenditures," a paper presented in Denver, Colorado, October 20, 1964 (processed), p. 3.

⁸⁸ Donald R. Gilmore, *Developing the "Little" Economies*, Committee for Economic Development, New York, 1960, "Summary," pp. 11-26.

⁸⁹ *The Nation's Manpower Revolution*, op. cit., 1963, Part 7, p. 2375.

Study, completed in 1960. Not only is the New York region six to seven times as large as Pittsburgh and much more diversified industrially and commercially, but it also has grown at approximately the national rate since the 1930's, whereas Pittsburgh has grown at less than half the national rate.⁴⁰

Dr. Chinitz, an associate of Dr. Hoover at the University of Pittsburgh, has made the following points in assessing the different factors that contribute to economic diversity in a region and, by indirection, explaining the lack of economic diversity in Pittsburgh:⁴¹

1. The more numerous the firms in a region, the greater the chance of industrial diversification because of a good supply of risk-taking business managers. The Pittsburgh region apparently represents the converse of this proposition.

2. Availability of capitay locally is much more important to small than to large business firms. (This relates to point 4 in the preceding summary.)

3. The geographic dispersion of the labor force—as in the Pittsburgh region—and the variable scheduling of the work of married men in heavy industry, like steel, is a partial explanation of the low labor force participation of married women in that area.

The results of the Pittsburgh study have provided the foundation for a three-pronged private development program to enable the Pittsburgh area to become "a fertile germinating ground for the industries of tomorrow."⁴² The first element in this program is upgrading manpower. Element two is making the community a more desirable place in which to live and work. Element three is providing a local clearinghouse for technical information to promote the development and utilization of new products and productive methods, finding markets for new products, and seeking out sources of local venture capital.

A similar study of economic trends in the Upper Midwest (coinciding with the Minneapolis Federal Reserve District) is close to completion. The Upper Midwest Economic Study was started in 1959 to provide background for an as yet unspecified action program of the Upper Midwest Council, a private committee established to promote economic growth in the region. Professor John R. Borchert of the University of Minnesota, who served as Urban Research Director for the Study, testified before the Senate Subcommittee on Employment and Manpower on October 31, 1963.

Highlights of his testimony were:⁴³

1. The Upper Midwest is in transition from a highly agricultural to a primarily service-industry economy.

2. Growth in nonfarm employment 1950-60 barely offset the sharp drop in agricultural employment.

3. As they have expanded, farm services, retail trade, government and other service activities have concentrated in urban centers.

4. Manufacturing and services supplied to national markets have concentrated in the Twin Cities and southeastern part of the region, serving as a "hinge area" that provides access to the region's surplus labor.

5. Within the region, population has gravitated toward the "hinge area."

6. Unemployment, below the national average in 1950, is now above it.

7. Per capita income rose in the decade, but not as much as for the nation.

8. The region has had a high expenditure on education relative to income.

Although the final report of the Study has not yet appeared, a forthcoming Urban Report No. 4, "The Why and How of Community Planning—Comparative Studies of Problems and Actions in 14 Upper Midwest Cities," may offer suggestions as to useful community programs for coping with some of the problems of an agricultural and mining economy in transition.

That the Pittsburgh, New York, and Upper Midwest studies are not isolated examples is indicated by the results of a 1963 survey of urban and regional research at U.S. universities. This survey, which was sponsored by the Committee on Urban Economics of Resources for the Future, Inc., in Washington, D.C., covered a five-year period.⁴⁴ Of the 698 studies reported, 257 were of metropolitan areas and 196 were regional or statewide. Of the total, 218 involved economic analysis. Over half were in process, suggesting the growth in academic interest in this field.

⁴⁰ Benjamin Chinitz, "Contrasts in Agglomeration: New York and Pittsburgh," *American Economic Review, Papers and Proceedings*, May 1960, p. 281.

⁴¹ *Ibid.*, pp. 284-287.

⁴² *The Nation's Manpower Revolution, op. cit.*, p. 2380.

⁴³ See *ibid.*, pp. 2381-2387.

⁴⁴ See Committee on Urban Economics of Resources for the Future, Inc., *Urban and Regional Studies at U.S. Universities*, The Johns Hopkins Press, Baltimore, Maryland, 1964.

SUMMARY

As stated at the outset, if there is a national problem associated with a tapering-off and change in direction of defense outlays, it relates more to economic growth than to business cycle developments. Changes in the level and mixture of defense requirements have already affected individual industries and communities. But there has been no noticeable effect on the strength of our overall economy.

It can be argued, of course, that the national economic growth rate is too low—the Council of Economic Advisers believes that the economy is producing 5 percent less than its capacity, for example. On the other hand, as already noted, the real growth rate of 5 percent in GNP in 1964 suggests that this problem may not be so serious as previously contemplated.

Economic development programs at the local and regional level, as illustrated by the Pittsburgh and Upper Midwest experience, have an encouraging implication for economic growth in general and offer a better adjustment to local dislocations resulting from defense program changes than so far achieved.

APPENDIX

TABLE I.—Importance of defense-space orders to 35 major contractors, fiscal year 1962¹

Company	Defense contracts	NASA contracts	Total (1) + (2)	Company sales	Ratio of orders to totalsales (3)/(4)
	(1)	(2)	(3)	(4)	(5)
75-100 percent:	<i>Millions</i>	<i>Millions</i>	<i>Millions</i>	<i>Millions</i>	<i>Percent</i>
Republic Aviation Corp.....	\$332.8	\$6.9	\$339.7	\$295.8	100.04
McDonnell Aircraft Corp.....	310.9	68.5	379.4	390.7	97.11
Grumman Aircraft Engineering Corp.....	303.6	24.6	328.2	357.1	91.91
Lockheed Aircraft Corp.....	1,419.5	5.0	1,424.5	1,753.1	81.27
AVCO Corp.....	323.3	1.4	324.7	414.3	78.37
North American Aviation, Inc.....	1,032.5	199.1	1,231.6	1,633.7	75.39
Hughes Aircraft Corp.....	234.2	9.2	243.4	(2)	(3)
50-74 percent:					
Collins Radio Co.....	150.1	3.7	153.8	207.8	74.01
Thiokol Chemical Corp.....	178.3	0.8	179.1	255.8	70.02
Ratheon Co.....	406.6	-----	406.6	580.7	70.02
Newport News Shipbuilding & Dry Dock Co.....	185.0	-----	185.0	267.3	69.21
Martin Marietta Corp.....	802.7	1.8	804.5	1,195.3	67.31
Boeing Co.....	1,132.8	15.6	1,148.4	1,768.5	64.94
General Dynamics Corp.....	1,196.6	27.9	1,224.5	1,898.4	64.50
Curtiss-Wright Corp.....	144.6	-----	144.6	228.7	63.23
United Aircraft Corp.....	662.7	34.1	696.8	1,162.1	59.96
Douglas Aircraft Co., Inc.....	365.6	68.4	434.0	749.9	57.87
25-49 percent:					
American Machine & Foundry Co.....	187.3	-----	187.3	415.4	45.09
General Tire & Rubber Co.....	366.1	66.4	432.5	959.8	45.06
Northrop Corp.....	152.5	1.3	153.8	347.5	44.26
Hercules Powder Co.....	181.6	-----	181.6	454.8	39.93
Sperry Rand Corp.....	465.6	2.2	467.8	1,182.6	39.56
Bendix Corp.....	285.9	19.4	305.3	788.1	38.74
FMC Corp.....	160.4	-----	160.4	506.5	31.67
Pan American World Airways, Inc.....	146.7	-----	146.7	503.9	29.11
0-24 percent:					
International Telephone & Telegraph Corp.....	243.6	2.2	245.8	995.5	24.69
General Electric Co.....	975.9	23.0	998.9	4,792.7	20.84
Radio Corporation of America.....	339.6	20.2	359.8	1,742.7	20.65
Westinghouse Electric Corp.....	246.0	3.4	249.4	1,954.5	12.76
International Business Machines Corp.....	155.5	12.6	168.1	1,925.2	8.73
American Telephone & Telegraph Corp.....	467.7	10.8	478.5	11,742.4	4.07
Ford Motor Co.....	269.1	-----	269.1	8,089.6	3.33
General Motors Corp.....	449.0	1.4	450.4	14,640.2	3.08
Standard Oil Co. (New Jersey).....	180.1	-----	180.1	9,537.3	1.89

¹ Net sales for fiscal year ending during 1962.

² Not available.

³ Estimated from other sources to be in excess of 75 percent.

NOTE.—In some cases, it appears that the ratio of defense-space orders to total sales in fiscal year 1962 is not an accurate indicator of the actual ratio of military-space sales to total sales.

Source: M. L. Weidenbaum "Stanford Research Institute November 1963."

SHORT-TERM VERSUS LONG-TERM CONSIDERATIONS

Mr. MADDEN (resuming). The current "rolling readjustment" of the economy from its superheated condition of last year shows signs of being modest and capable of completion within the year, although the pickup in the second half may not be as strong and rapid as the Council of Economic Advisers predicted in its annual report last January.

Our short-term problem is to prevent the leveling of business activity that started in the second half of last year from developing into a downturn. A crucially important factor at this juncture is confidence—both among businessmen and consumers. If business retains its confidence about long-term prospects, the effects of recent trends on business fixed investment outlays could be moderate. Similarly, if consumers do not continue for much longer to save a larger percentage of personal income than last year, in part because of an anticipated tax increase this year, consumer durable sales may soon quicken.

But we should not permit the problems of the near term to obscure the more fundamental long-term issue of economic growth and how best to promote it.

PROMOTING ECONOMIC GROWTH

By definition, stable growth will take place if aggregate demand rises in step with productivity gains. But our unhappy experience with the unbalanced monetary-fiscal policy mix of last year demonstrated that this general condition for stable economic growth does not occur automatically. By being too easy, fiscal policy forced monetary policy to be unduly restrictive. The Federal spending component of fiscal policy has been rising steadily—quite apart from spending for defense.

From 1960 until fiscal 1967, the rise in nondefense spending outpaced defense spending increases. In some years, such as fiscal 1961, 1963, 1964, and 1966, nondefense spending rose considerably faster. Although in the current fiscal year defense spending is rising more rapidly than nondefense spending, even for fiscal 1968 the percentage increases are quite comparable. Federal nondefense spending has also been rising faster than the GNP. This type of spending has risen on a cash basis from 10.4 to 11.7 percent of current dollar GNP, fiscal 1960-66, and to 12.8 percent estimated for fiscal 1968.

This inexorable rise in Federal nondefense spending has not only contributed to inflation by concentrating on the service industries where productivity rises slowly, but it also has limited fiscal policy flexibility to changes in taxes.

Far from needing a tax increase for fiscal flexibility this year, as proposed, we need expenditure control of nondefense programs for long-range balance among national priorities. More of the economic "growth dividend" should be made available to the private sector or to State and local governments.

A simple and effective way to do this is through Federal tax cuts whenever inflation is not a threat. When inflation threatens, monetary policy will be more effective and less harsh if Federal nondefense spending is controlled more than it has been since fiscal 1960.

The national chamber of commerce does not believe that fiscal flexibility should be achieved through tax policy.

(The attachment above referred to, follows:)

CONTRACT STUDIES DONE FOR THE UNITED STATES ARMS CONTROL AND
DISARMAMENT AGENCY

The Dyna-Soar Contract Cancellation, The United States Arms Control and Disarmament Agency (U.S.A.C.D.A.), Washington, D.C., July 1965.

Community Readjustment to Reduced Defense Spending, (Case studies of Potential Impact on Seattle-Tacoma, Baltimore, and New London-Norwich), done for the U.S.A.C.D.A. by the National Planning Association, Washington, D.C., December 1965.

Adjustments to Reduced National Defense Expenditures in New Mexico, a study done for U.S.A.C.D.A. by Kirschner Associates, Albuquerque, New Mexico, December 1965.

Industrial Conversion Potential in the Shipbuilding Industry, a study done for U.S.A.C.D.A. by Midwest Research Institute, Kansas City, Missouri, March 18, 1966.

Chairman PROXMIRE. Thank you very much for a concise and a very excellent statement.

Mr. Goldfinger?

STATEMENT OF NATHANIEL GOLDFINGER, DIRECTOR OF RE-
SEARCH, AMERICAN FEDERATION OF LABOR AND CONGRESS OF
INDUSTRIAL ORGANIZATIONS (AFL-CIO)

Mr. GOLDFINGER. Thank you, Mr. Chairman.

The possibility of a leveling off or decline of defense expenditures should be viewed as an opportunity, rather than a problem. But the opportunity will be missed—and economic problems could arise—if we fail to plan for an eventual leveling off or decline of military spending.

The issue was appropriately stated by this committee in announcing these hearings—the exploration of “contingency plans to insure full employment growth in the event of deescalation in Vietnam.” It seems to me that this issue can be divided into two somewhat related parts:

- (1) Preventing a recessionary decline of economic activities, in the short run, and
- (2) Preventing economic stagnation in the longer run.

I might add here that I do not believe that sustained full employment is guaranteed. Furthermore, as I see it, it cannot be achieved mechanically. It requires a will to act, and it requires policies to offset the economic impact of the leveling off or decline of military expenditures.

Moreover, a simple aggregate offset, as I see it, is not enough. There are additional policy issues involving the demand mix, both in economic terms and in social policy terms, such as the degree of emphasis on business investment as part of the demand mix, and how much emphasis should be placed on Government investment as against the private sector.

The magnitude of the issue is considerably smaller than in 1945-46 or in 1953-54. At present, defense expenditures account for 9 percent of the gross national product and expenditures for the war in Vietnam are about 3 percent of GNP.

In contrast, defense expenditures accounted for 41 percent of gross national product in 1944, during World War II, and 13.4 percent of GNP in 1953, the year the Korean war ended.

After the end of World War II, the massive economic adjustments were accomplished without a recessionary drop of economic activities and precipitous rise of unemployment. The sharp decline of defense expenditures and the size of the Armed Forces was offset by the backlog of pent-up demand for goods and services—by consumers, business, States and local governments—backed up by wartime savings.

In addition, the GI bill succeeded in helping large numbers of veterans in upgrading their education, vocational, and technical skills. The economic problem was an inflationary rise of civilian demand, with a premature elimination of wartime controls and regulations, rather than a lack of sufficient demand relative to productive capacity.

However, the adjustments to the end of the Korean war ran into greater obstacles, despite the much smaller economic impact of that conflict. By 1953-54, there was little backlog of demand that could be supported by earnings and savings. Output declined and unemployment rose from 2.9 percent of the labor force in 1953 to 5.6 percent in 1954.

Moreover, the end of the Korean war was followed by three successive recessions, relative economic stagnation and a rising trend of unemployment and underemployment. Between 1953 and 1960, real GNP increased at an average yearly rate of only 2.4 percent—substantially less than the potential growth rate of approximately 4 percent. Actual growth of the economy was merely about three-fifths of its potential. On a per capita basis, real GNP increased only about seven-tenths of 1 percent per year. Social and economic problems festered, along with rapid technological change in agriculture and industry, urban growth, and the rising trend of joblessness.

The deflationary gap of 1954 was unnecessary. The \$7.5 billion reduction of defense expenditures, in that year, was accompanied by a moderate tax reduction in January, under previously adopted legislation—which helped to offset part of the deflationary gap. But the drop of military expenditures was also accompanied by a \$2.2 billion decline of nondefense expenditures, rather than the increase that was needed to meet the requirements of a growing population for improved public facilities as well as to create job opportunities.

And the tax revisions of mid-1954 placed major emphasis on the savings of business and wealthy families—which contributed substantially to the lack of balance between productive capacity and lagging demand for goods and services in the ensuing years.

Moreover, the relative economic stagnation that followed these events was likewise unnecessary. With idle manpower and productive capacity, the task of national economic policy should have been to add sufficiently to private and public demand to reach and sustain full employment and balanced economic growth. Instead, there was a concentration on balancing the administrative budget, with little regard for the impact of restrictive fiscal policy—and restrictive monetary policy, as well—on the level of economic activities.

We know a good deal more about the management of the national economy, at present, than we did in the 1950's. But the improved in-

formation and knowledge will have to be backed by advance planning and a will to act promptly, when military spending levels off or declines.

Even a leveling off of monetary spending will require some changes in national economic policy if full-employment expansion is to be reached and sustained. At present tax rates and under conditions of high employment, Federal revenues are expected to increase by about \$8 billion to 12 billion or more per year in the coming decade.

But increased social security payments, salary increases for Federal employees and the normal development of existing Federal programs probably will account for expenditure increases of approximately \$5 billion to \$6 billion per year. During the course of the next decade, therefore, the fiscal dividend from high employment economic expansion will build up at a rate of some \$3 billion to \$6 billion or more per year, if international tensions subside enough to permit a leveling off of defense expenditures.

Here is an opportunity to improve the quality of American society—to expand and improve public facilities and services, to rebuild our cities, to provide greater equity in the tax structure—while, at the same time, providing the foundation for balanced full-employment expansion of the economy.

At this point, no one can predict the course of the Vietnam conflict, the timing of any change in direction of military expenditures or the magnitude of such change. However, we should be prepared with some guides and priorities.

The AFL-CIO Executive Council declared on February 27, 1967: "America must be prepared with detailed plans to substantially step up Government investments for public facilities and services as soon as the objective of an honorable settlement of the Vietnam conflict becomes a reality." Top priority should be given to stepped-up Government investment.

If the magnitude of the change in direction of defense expenditures is great enough to warrant tax reduction, as well as stepped-up Government investment, major emphasis should be placed where it is most urgently needed in the tax structure—to reduce the relative tax burden of low- and moderate-income families, as well as to eliminate whatever Federal tax liability still remains on the poor.

In addition, an improvement of the unemployment insurance system, with the inclusion of more adequate Federal standards, is long overdue. And an improvement in the GI bill, adopted last year—to increase the educational assistance allowance and extend the time period for such allowance, as well as inclusion of provisions for apprenticeships and on-the-job training, such as were included in the GI bill after World War II—would greatly assist veterans, and upgrade the education and skills of the work force.

Additional measures should be adopted to assist workers who wish to move to jobs in other parts of the country—through improved inter-area operations in the U.S. Employment Service and an expansion of Federal financial assistance to unemployed workers who wish to relocate their jobs and homes.

In the longer run, however, if we are fortunate enough to enjoy a reduction of international tensions, the fiscal surplus provides the op-

portunity to speed up the Nation's progress toward greater social equity and improved facilities and services.

Such potential expansion of Federal funds will permit increasing investments in human and material resources, as well as some reduction of the relative tax burden on low- and moderate-income families, if the international situation does not require a substantial further boost of military spending. Indeed, unless Federal fiscal policy moves in that direction, the Government will take too much money out of the spending stream and the Nation will not be able to achieve and sustain high-level economic activities.

Top priority should be given to stepped-up Federal investments in job-creating measures to improve and expand facilities and public services—rebuilding the cities, for example, education, health care, pollution, recreation. Government investment is the most effective means the Government possesses for lifting economic activity and creating jobs. Moreover, as Prof. Alvin Hansen, of Harvard University, states, "Social priorities unmistakably tell us that we should rely more heavily on increased expenditures than on tax cuts, if we wish to pursue the rational road to full employment and our potential growth goals."

And, as we move ahead in this direction, a complete overhaul of our woefully inadequate public assistance system should be undertaken and the development of contributions from Federal general revenue to the social security trust fund for a system of adequate social security retirement benefits.

There is a need for more detailed information on the economic impact of defense expenditures. Such greater detail is required for advance planning for a leveling off or decline or military spending or for the possibility of a step-up, as well.

At present, our information is essentially in the form of aggregate dollar amounts. However, there is a need, if advance planning is to be effective, for greater detail on regional, industry and occupational impacts.

For example, where is the industry and employment impact, at present—by region, industry, skill, and occupation? Which areas, industries, skills, and occupations would probably be affected most by a leveling off or decline of defense expenditures? It seems to me that such estimates can be developed by Government agencies and made available to State and local government authorities, as well as to private groups.

While advance planning at the national level is a prerequisite, community planning is also essential—not only in terms of the defense impact, but also in terms of future needs for facilities and services to provide a sound base for sustained full-employment growth. In this regard, the Federal Government should step up its planning assistance to local governments.

The AFL-CIO is convinced that advance planning is essential for sustained full-employment expansion of the economy. More than a year ago, when defense expenditures were accelerating at a considerable pace, the AFL-CIO Executive Council stated:

Just as the Government should be prepared for the contingency of a rise in military expenditures, it should also be prepared to offset a weakening of business investment and a leveling-off or decline of military spending.

We do not want an economy based on spending for destruction. Military expenditures are a necessity for the defense of freedom; they must never be the bedrock of our national economy.

Therefore, the Government must plan at once for a rapid rise in its investment in the public services that should be instituted, expanded and improved—not only for the public good but also to provide necessary employment and consumer buying power. (February, 1966.)

Chairman PROXMIRE. Thank you for a very eloquent paper. It is great to have you gentlemen, who are both very able and who have different views on how we should adjust hopefully to an end of hostilities in Vietnam.

Dr. Madden, couldn't the adjustment to the Vietnam situation be tougher than Korea, in spite of the fact that the expenditure in Vietnam is so much less in relationship to our overall economy, tougher in this sense that both in Korea and in World War II, we had great pent-up demands.

We had controls during Korea, as you know.

You referred to the shortages during Korea. Now, there are no shortages. As a matter of fact, we are having trouble selling what we can produce. The automobile industry has been in trouble until the last few weeks. The indicators until a few weeks ago all indicated a leveling-off of production, indicated that inventories were growing rapidly while sales were level.

Under these circumstances, if you take out the Vietnam expenditure without a direct compensation either in tax reduction or in Government programs, or some kind of combination of the sort that Professor Leontief has given us this morning, aren't you likely to have a situation that could lead to a recession?

Let me just say one more thing on this, because I think you also indicated that we would have some kind of Marshall-type aid to Vietnam. In his Baltimore speech, President Johnson proposed a \$1 billion reconstruction, \$1 billion for us over a period of years in the Mekong River area, which as you know, is peanuts compared to what we are spending on military hostilities.

Our economic aid to Vietnam is now about \$500 million. If you add these two up they are dwarfed by the strictly military expenditures over there, indicating that that source of stimulation for our economy is likely to be pretty meager compared to the stimulating effect of Vietnam.

Mr. MADDEN. Generally speaking, my answer is "No." I think that the ending of the Vietnamese war might require a reassessment of national economic policy looking toward the last third of the 20th century, and the problems that the United States faces in that last third of the 20th century.

But I think that that reevaluation would also be affected by the foreign military strategic outlook, and I think there is a real possibility that when Vietnam ends, there may be some other trouble spot in the world which might prevent the reduction of military expenditures as much as in Korea. And so I would question in my own thinking against assuming that the end of the Vietnamese war necessarily introduces a period of world stability and peace.

But leaving aside that questionary note, the study of the President's Commission on Automation and Technology, the studies of the

Rand Corp., studies of the Hudson Institute, all suggest that we face in the last part of the 20th century a tremendous impulse to economic growth through the accelerating technological revolution through which we are passing.

This accelerating technological revolution will certainly require massive investments by private industry in new equipment, in new plants, in skilled manpower, more scientists, more engineers, more technicians.

It will be accompanied by a continuation of the shift away from blue-collar jobs and toward more skilled jobs and superimposed on this great trend, which the experts expect to continue to the year 2000, and further, and that will be accompanied by remarkable technological changes that are perhaps as dramatic, if not more dramatic, than those we have seen so far in this country, there is of course the great world struggle in the underdeveloped countries, of keeping pace with production and the growth of the population.

While I think these two massive historic developments may very well require reassessment of national policy, both domestic and foreign, but I think that as far as the short-run problem is concerned that the Vietnamese deescalation should not present as difficult a problem as Korea, even though there may not be pent-up demands resulting from World War II, because I think there are equally strong demands for raising the quality of life in the United States, through private expenditures as well as public expenditures.

Chairman PROXMIRE. Let me ask you at this point: as I understand it, you are relying on two forces to compensate for the absence of a policy of either a very sharp tax cut or expanding the Great Society programs. One is automation. It seems to me that automation could have the reverse effect.

After all, it means that you can accomplish a lot more, produce a lot more, with fewer people. In the last 3 years, well, possibly 1964, 1965, and 1966, we had a massive expansion, as you know, of business investment in plant and equipment. Much of this was to increase the productivity of our economy, and I think it has probably increased very greatly.

Now, automation, I would agree with you, is going to mean innovation, it is going to mean change, and it very well might lead to a greater demand, but only, it seems to me, if there are other monetary policies and tax policies, and spending policies, and so forth.

Mr. MADDEN. I quite agree.

Chairman PROXMIRE. That would tend to encourage it.

Mr. MADDEN. Right. I think that was an argument for a tax cut, when deescalation came, in order to create the demand.

Chairman PROXMIRE. That would tend to encourage it.

Mr. MADDEN. Right, I thought that was an argument for a tax cut when deescalation came, in order to create the demand.

Chairman PROXMIRE. Perhaps I misunderstood you.

Mr. MADDEN. Yes.

Chairman PROXMIRE. Your answer, then, is that we should select the second alternative Professor Leontief proposed, more or less. I beg your pardon—the first alternative. The one of a tax cut in the private sector.

Mr. MADDEN. I think that, with all due respect to the analysis Professor Leontief presents, it is a fairly static kind of analysis, and it is rather difficult for me to choose either one of the alternatives without a more detailed knowledge of the benefits and costs of the various programs that he suggests.

For example, a letter to the editor of the Washington Post this morning by Prof. George Hilton of the University of California advocates Postmaster General Lawrence O'Brien's solution to the postal problem, by proposing that we could get more efficiency from the Post Office if we first provided a nonprofit corporation instead of the present arrangement, and, secondly, if we provided for private competition.

Well, here is an example where, as you know, by semantic designation the second alternative looks very fine. You spend money on education and that sounds wonderful. But if the spending of the money on education is no more efficient than some of the programs that we have, such as the Job Corps, which spends \$8,000 or \$9,000 per man per year, why then, I think we—

Chairman PROXMIRE. I think that is a very well spent \$8,000 or \$9,000.

Mr. MADDEN. Yes; then I think we should get below the easy semantics of spending more on education, and see what benefits-to-cost ratio is. So I couldn't very well answer the question as to the choice between alternatives in such a general way.

I do think that my general preferences and the preferences of the chamber of commerce are in the direction of strengthening the private sector, after 50 years of Government growth, as against strengthening the Government sector, which now takes 27 percent of the national income in taxes.

Chairman PROXMIRE. You see, the other part which you said we have this revolution throughout the world, especially in the underdeveloped countries, a massive job to do. Now, if you proposed a substantial, and a very substantial, increase in foreign aid of one kind or another, that would be, I think, consistent. But if we don't do that, and I am not saying that we should or should not on a very massive basis, it seems to me that this does not mean we are going to have any stimulation in demand, just because there is that discontent and because they need capital.

Mr. MADDEN. I think you get, again, into the semantic trap, because when the Government spends money abroad, you see it as foreign aid. When private business spends money abroad, you don't consider it foreign aid.

Chairman PROXMIRE. I think I would agree that if private business can do the job, they certainly out to do it, but I think you would agree with us that as far as the underdeveloped countries are concerned that private business is unlikely to do a great deal for some time, for many, many reasons.

Now, there are some things they can do and do very well. The Rockefeller people have done a lot in South America, and others. But the limitations on the private business in the underdeveloped countries will be severe for some years.

Mr. MADDEN. I think that depends, however, on what kind of a re-evaluation the Congress makes of foreign economic policy that might encourage private business investment—in underdeveloped countries, that is. Don't you?

Chairman PROXMIRE. Oh, yes; yes, indeed.

I would like to ask Mr. Goldfinger what, if any, effect will your program of tax cuts and increased Government programs have on the deficit, on the national debt, on prices, and on interest rates?

Mr. GOLDFINGER. First, before I reply directly to your question, there was a moment when I thought Carl was going to advocate private ownership of roads and turnpikes and, perhaps, some private competition there. But your question poses, by implication, a kind of feel of inflationary pressure, and I don't think that that need be true at all.

I think if we focus on the growth potential indicated by the staff publication¹ of the Joint Economic Committee a few months ago, the great need is for rising demand to meet the potential increases in rising productivity, and the growth of the labor force.

I am not advocating anything in terms of dollar amounts in this paper, because I don't know what the dollar amounts are in terms of leveling off, or decline of military expenditures. But I do believe strongly that the much greater danger is not inflation, but rather deflation and/or stagnation.

Certainly, if there is excessive demand, and if there are general shortages, then I would go easy on the fiscal policy push. But I don't see that as the great danger.

It seems to me that we are talking about some form of deescalation and, hopefully, subsiding of international tensions, which would have to be offset by an increase in civilian demand.

For that reason, I would generally go with Dr. Leontief's second alternative, in terms of a mix, with priority emphasis on Government investment, and secondary emphasis on a tax reduction. On the issue of a possible tax cut I would insist strongly that we should be talking not simply of some kind of aggregate tax reduction, but on the shape of the tax reduction, both for social policy reasons and for economic reasons.

I think that for both reasons, the emphasis should be on a tax reduction to reduce the relative tax burden among the low- and moderate-income families.

Chairman PROXMIRE. My time is up. Senator Miller.

Senator MILLER. Thank you, Mr. Chairman.

I would like to ask Dr. Madden and Mr. Goldfinger whether or not this comparison between the present Vietnamese costs with those in Korea and those in World War II, on the basis of a percentage of gross national product, is particularly meaningful.

I have the feeling that we are not using a good basis for comparison. For example, it would seem to me that a comparison of the percentage of real increased GNP would be more meaningful, if we were going to use a comparative set of statistics. I would appreciate your comment.

¹ *U.S. Economic Growth of 1975: Potentials and Problems*, staff study prepared for the Subcommittee on Economic Progress of the Joint Economic Committee. December 1966.

Mr. MADDEN. I don't understand the last part of your question.

Senator MILLER. What I am getting at is this: If, for example, you should agree that use of a percent of GNP as a basis of comparing the relative demands upon our economy with the war in Vietnam, the war in Korea, and after World War II, if you would agree that that is not particularly helpful or meaningful, might you agree that to use a comparison on the basis of the relative percentages of real increased GNP per year would be more meaningful?

Mr. MADDEN. Real increases in GNP that are allocated to the war?

Senator MILLER. The percentage, yes. It might even be more than 100 percent, but assume that it is a percentage, assume that real increased GNP was \$30 billion, and the cost of the war in Vietnam was \$15 billion. Then you say that was 50 percent of the real increased GNP that went to the war in Vietnam, and make a similar comparison for the Korean war, a similar comparison for World War II.

Don't you think that would be a more meaningful approach than to just talk glibly about 3 percent of GNP for the war in Vietnam and 8 percent for the Korean war? I have a feeling that a percentage of GNP is not giving us anything that is particularly meaningful.

Mr. MADDEN. I agree that I think both comparisons are useful. The first comparison measures the relative size of the war and the current GNP; but the second measure which you suggest, it seems to me, takes into account the timing of the shift from peacetime to wartime production, and that timing question is very important, as I tried to bring out in the testimony, by saying that the Korean war was much more sharp and sudden than the Vietnamese war has been.

Senator MILLER. It also takes into account the inflation factor, which can be quite large, and it seems to me that that ought to be taken into account.

Mr. MADDEN. I agree.

Senator MILLER. If we are going to get into a meaningful comparison.

Mr. MADDEN. I would agree with that.

Senator MILLER. Mr. Goldfinger?

Mr. GOLDFINGER. I would agree that both of these comparisons are important, but I wouldn't push aside or ignore the relationship of the Vietnam expenditures to the GNP itself.

I think that the point you are making is an important addition. As Dr. Madden indicated, it is an important comparison when you are looking at the economic impact of the step-up, the escalation in military expenditures, and perhaps we should have addressed ourselves to it. Perhaps we should have addressed ourselves to the same kind of comparison in terms of a decline in military expenditures, and the impact of such a decline on GNP in a given year, although such exercise would be guessing at this point.

But I think that on an overall basis, Senator Miller, the ratio of some 3 percent or so of GNP being affected by the Vietnam war is an important comparison, in terms of the size of the overall aggregate impact. I am not suggesting that it is more important than that.

Senator MILLER. Just as a layman, it would seem to me that if that 3 percent were translated into 50 percent of the increased GNP, the real increased GNP, then that would be more important.

Mr. GOLDFINGER. Well, it certainly is important when you look at the situation from 1965 to 1966, and you see the rise in real GNP and the rise in military expenditures, and you can see the relationship there. I would agree with you on that.

Mr. MADDEN. If I may add a point, though, if the Vietnamese war is only 3 percent of the GNP, then one can with some confidence say, that in the light of our growth during the period from 1960 to 1966, at a rate of around 5 percent a year, and if we can assume that our policies are as sensible over the next half decade as they were during this period in stimulating growth—such things as the investment tax credit, the tax cut, and so on—that we can expect to see the disruption caused by a decline in Vietnamese spending, when the total is only 3 percent of the GNP, to be fairly minor.

Senator MILLER. Yes, but if we are concerned about how we are doing in a particular year, then we are interested in the increased GNP, the real increase.

Mr. MADDEN. Yes.

Senator MILLER. And if we find out that the war expenditures are taking 50 or 75 percent, or perhaps all of the increased GNP, then we have a pretty good indication of the nature of our economic advances.

Mr. MADDEN. Indeed so. I think you are absolutely right, and it is true on the downside as well. The question of how fast the expenditures taper off is essential in setting fiscal and monetary policy.

Senator MILLER. Do you have a comment?

Mr. GOLDFINGER. I was going to say that some of the things Dr. Madden just indicated are rather troublesome as I look ahead, particularly if and when we get a leveling off or a decline of military expenditures. I am firmly convinced, as I have stated to this committee a number of times in the recent past, that the policies of the past 12 or 13 years have placed undue emphasis on private savings and private business investment, which have generated two unsustainable capital goods booms, one very recently, where business investment as a percentage of GNP went far beyond any sustainable rate. This is one of the longer-run difficulties in the economy.

I am firmly convinced that one of the very important policy issues before us is the creation of a new balance in the economy between business investment and productive capacity on the one hand, and the demand for goods and services on the other hand.

Senator MILLER. Do I detect from your answer to Senator Proxmire's question, Mr. Goldfinger, that you are not particularly concerned about inflation?

Mr. GOLDFINGER. Oh, no; I am concerned about inflation in general, but I do not think that there is an inflationary threat in the leveling off or a decline of military expenditures.

I think that the possible problems related to a leveling-off or a decline of military expenditures are deflationary rather than inflationary; that the possible problems are inadequate demand relative to the labor force, productivity and productive capacity, rather than the reverse.

Senator MILLER. Why would you say that in face of what happened after World War II, as far as inflation was concerned?

Mr. GOLDFINGER. Oh, because there was a huge backlog of pent-up demand after World War II, backed up by wartime savings, which moved quickly into the market, as soon as the war was over, and it moved in fast. The controls and regulations were dropped in 1946, and they were dropped before productive capacity was coming on-stream, so that there was an inflationary outburst for a period of about a year and a half or 2 years, running into the end of 1947 or early 1948.

I do not think those kinds of conditions exist now. We don't have that backlog of pent-up demand. We don't have the backlog of wartime savings, certainly nothing to compare with the World War II situation.

Senator MILLER. Well, if, as you said in your statement, we must be concerned about preventing economic stagnation in the longer run I am sure you would agree that we must therefore be careful about inflation, even though you recognize or even though you say deflationary results may be the major threat. At the same time if we are interested in preventing stagnation, it would seem to me that we must be interested in preventing inflation.

Mr. GOLDFINGER. I would agree with you, sir, that we shouldn't push demand to the point of creating widespread general shortages of manpower, productive capacity and goods, but I do think that the possible problem of any kind of deescalation and subsiding of international tensions would be inadequate demand rather than excessive demand.

Senator MILLER. Whether it is inflation induced by excessive demand or any other factor, you would agree that we should, among other things, do what we can to prevent stagnation arising as a result of inflation, would you not?

Mr. GOLDFINGER. I am not sure that I follow you on the subject of stagnation resulting from inflation.

Senator MILLER. I have always been told that inflation, certainly serious inflation, can result in a decline in business activity and unemployment, and I would consider that, certainly, economic stagnation.

Mr. GOLDFINGER. Well, that is true, and I would agree with you there, but I don't think that this is a realistic look into the future. When you look back at the postwar period, Senator, or at least when I look back, I find just two very brief periods of inflation after the end of World War II, and it lasted for about a year and a half or 2 years. Then, I find about 8 months of an inflationary rise in the price level after the outbreak of the Korean war.

In your statement you recommend going to the general fund of the its tremendous flexibility and tremendous productive capacity, are inflationary shortages.

We showed, only within the past year or year and a half, the great flexibility of this economy in adapting to sharp increases in demand.

Senator MILLER. I certainly hope you are right, but it seems to me that in outlining a program which, among other things, is going to prevent economic stagnation in the longer run, that even if this is not the major threat, we ought to, among other things, make sure that the inflation—the prevention base, is covered.

Mr. GOLDFINGER. I would agree with you there, sir.

Senator MILLER. Now, one last question.

In your statement you recommend going to the general fund of the Treasury as a source for additional social security retirement benefits. Does this mean that you are advocating a departure from the concept of insurance to one of the concept of welfare?

Mr. GOLDFINGER. No, Senator, not at all. Our views on this issue were presented in great detail to the House Ways and Means Committee a few weeks ago. We are supporting pretty much the administration's bill, for a 15- to 20-percent increase in the level of social security benefits, based on a step-up in payroll taxes.

However, we strongly urge a move as rapidly as possible to a 50-percent increase in the level of social security benefits, because in our view, the current level of benefit payments is most inadequate.

So that we see the current bill, which is before the Congress, as a first step in the direction of what we think is needed.

However, to move much beyond the administration's proposal, we are convinced would require contributions from general revenue. This was a proposal way back in the midthirties and this has been considered in detail by the actuaries and the experts in the social security area. I don't think that it destroys the concept of insurance. It would make the insurance concept a three-way insurance concept, rather than a two-way insurance concept.

In other words, instead of simply basing the insurance trust funds on contributions from employees and employers, the trust fund build-up would be based eventually—this is one way of doing it—on a three-way contribution, from employees, employers, and the Federal general revenue.

Senator MILLER. And to that extent, the extent that the third way, since that third way is largely financed according to the ability to pay, you would then depart from the insurance concept, would you not?

Mr. GOLDFINGER. Well, I guess one could argue about that. I wouldn't consider it a departure from the insurance concept. I would say that it would be a change in the insurance concept.

Senator MILLER. To me—maybe I don't have the same concept of insurance that you do, but to me this increase that you advocate, I might say I am sorry I haven't heard the testimony, and I will make it a point to read your testimony—

Mr. GOLDFINGER. I will send you a copy of it.

Senator MILLER. I would appreciate it if you would do that. To me, the insurance concept would be carried through, if this was financed by increases in the employer and employee contributions.

Now, I don't say I favor that. As a matter of fact, I introduced a proposal 2 years ago to provide for automatic increases in social security payments to reflect increases in the cost of living, and to have that increase come out of the general fund of the Treasury, but I point that out to you as an indication that I don't necessarily disagree with you.

But my point is that if we are going to talk about social insurance, then we are not going to be able to talk about social insurance if we have to finance a third of it, at least, by contributions according to

relative ability to pay. I have never heard of any insurance policies based upon, or premiums based upon, relative ability to pay.

I have no further questions or comments.

Chairman PROXMIRE. I just have a very brief question for Mr. Goldfinger, and then I want to ask Professor Leontief a windup question.

Dr. Madden contends, and I think his figures are accurate, that nondefense spending, Mr. Goldfinger, has been increasing—non-defense that is.

Mr. GOLDFINGER. Yes.

Chairman PROXMIRE. Increasing rapidly, and increasing more rapidly than before, and that the projected 1968 budget shows a particularly sharp increase.

Now, you advocate even more substantial programs.

How much more rapidly would we increase our nondefense spending, roughly, if we follow your prescription? As I understand it, the figures given by Dr. Madden were something like 12.3 percent increase in the 1968 budget, something in that order, and you are advocating a sharper increase.

Mr. GOLDFINGER. I haven't worked out the figures in any detail, sir, but I would suggest that they probably should increase by somewhere on the average, over the next decade, of perhaps 4 to 7, or 8 percent a year, on an average, and somewhat faster if our military obligations level off or subside.

Chairman PROXMIRE. Four, to 7 or 8 percent. In other words, you said the present increase projected for this year would be extraordinary by your judgment.

Mr. GOLDFINGER. I don't know what the increase—the projected increase—is for this year. Offhand, I have forgotten those figures, but I doubt the accuracy of Dr. Madden's figures.

Chairman PROXMIRE. Dr. Madden, you gave figures of, I think, 9, 10, and 12 percent in successive years, or something in that order.

Mr. MADDEN. Yes. Well, the expenditures were, in 1963, just to take a year, nondefense spending was 11.4 percent of GNP. This next fiscal year, 1968, the estimate is 12.8 percent.

Chairman PROXMIRE. Yes, you were referring to something else. But there was also a substantial increase in nondefense spending projected for 1968.

Mr. MADDEN. Yes, that is correct.

Chairman PROXMIRE. Especially if you include the proposed social security benefits.

Mr. MADDEN. That is correct.

Mr. GOLDFINGER. Senator, it seems to me that in recent years we have been living through some radical changes in our society, with very rapid urban growth, a technological revolution, changes in race relations, and the pressing demands of the peoples of the less developed countries of the world for a share in the fruits of economic progress. These changes present great needs for increased Government investment.

Chairman PROXMIRE. What you are saying is that the Congress has enacted a very ambitious program of aid for education, which we didn't really have before, it didn't amount to much, we had something

but very little—an antipoverty program, a whole series, a number of other things that do represent a sharp departure from what we have had before.

I was for all these programs, but what I am saying is that I would like to get your judgment as an economist, and a very responsible economist, as to the dimensions of this kind of increase.

Mr. GOLDFINGER. Senator, the last Congress, as you have indicated, made tremendous strides forward in all kinds of social programs, and I might add that many of these programs were needed maybe 5 or 10 years before. But at long last, the Congress, back in 1965 and 1966, did make tremendous strides forward, in laying the base for moving ahead to begin to meet some of these social problems.

However, the problems are very great. The amounts of money allocated to them are relatively small in terms of the need, but we have begun to make some progress and should continue on this road.

Now, sure, there are all kinds of administrative problems. Certainly, there is a lack of trained personnel and experience in many areas, along the lines of meeting these problems. Nevertheless, what I am suggesting is that with the release of funds from a possible leveling-off or decline of military expenditures, we should be able to make much greater progress in moving ahead.

Chairman PROXMIRE. Professor Leontief, having given us your very excellent and helpful testimony on the input-output analysis, and what it means, I would now ask you to put on your other hat as an eminent economist and man with strong value judgments, and tell us what alternative you would choose, and why; and the consequences that this might have not only in terms of building a stronger and better country, but also in terms of these very real and significant problems—what it does to inflation, and what it does to interest rates.

Mr. LEONTIEF. Among these two alternatives?

Chairman PROXMIRE. That is your choice. You have given us some fine alternatives. We want to know how you feel about it.

Mr. LEONTIEF. Yes, Mr. Chairman. My preference would be for alternative No. 2. If we look at the past history of this country from the point of view of the role of public organizations—Government is one of them—we find that the proportion of our total national economic resources allocated to serve the common needs of citizens through public organizations was rising steadily.

A choice of alternative No. 1 would mean a reversal in that trend.

Acceptance of alternative No. 2 would be much more in line with our national aspirations and historical traditions.

To be more specific, as the economy grows, as the human needs and technology expand; that is, the methods of satisfying these new needs change: it happens that these needs and these technologies require for their satisfaction and their implementation collective rather than purely individual action. Whether we like it or not, government, Federal and local, is bound to play a greater and greater role in our economy. Education requires more and more resources. Roads require more and more resources. Preservation of natural resources and provisions for protection from the negative effects of industrialization—such as pollution of air and water—and should I add of minds—require more and more centralized public action.

There is a large payoff from a dollar spent on Great Society programs or on foreign aid—which advances our standing in the world and protects us from potential foreign enemies at least as much as military weapons—more, I believe. This is the reason why I feel it would be preferable, nay, necessary, to choose the second alternative rather than the first.

The benefits which the country could derive, not tomorrow but today, from spending money; that is, from using our economic resources in this way, are greater, much greater, than the problematic benefits that we can possibly derive from investing billions of dollars and thousands of lives in demonstrating our military superiority in Vietnam.

Chairman PROXMIRE. Thank you, Professor Leontief, and thank you, Mr. Madden and Mr. Goldfinger. You have been very, very enlightening and helpful, and we do appreciate it. This is one of the best sessions we have had. We have certainly learned a lot about how we can best adjust to a deescalation and negotiations, and peace in Vietnam.

This afternoon we will reconvene at 2 o'clock in this room to hear three distinguished economists discuss the manpower problems involved. We are looking forward to that.

Thank you.

(Whereupon, at 12:30 p.m., the committee recessed, to reconvene at 2 p.m. the same day.)

AFTERNOON SESSION

(Present: Chairman Proxmire, and Senator Percy; and Representatives Curtis, and Rumsfeld.)

(Also present: John R. Stark, executive director; and Daniel J. Edwards, staff economist.)

Chairman PROXMIRE. The Joint Economic Committee will come to order.

We conclude our hearings on the impact of the Vietnam war on the economy with three most distinguished gentlemen who are experts in the area of manpower, and who have some interesting and provocative ideas about how we can solve this serious military manpower problem.

I might say, gentlemen, that although some of the committee members haven't arrived who will be here, I think we had better go ahead. Incidentally, some members from the minority side were very helpful in suggesting this meeting, suggesting this emphasis in our hearings. I am sure they are going to be here, but they are a little tardy.

Mr. Oi, will you lead off. You are, as I understand it, in the Department of Economics of the University of Washington.

STATEMENT OF WALTER Y. OI, DEPARTMENT OF ECONOMICS, UNIVERSITY OF WASHINGTON

Mr. Or. Yes. I think the basic problem begins with the fact that the Nation presently allocates substantial quantities of its labor and material resources in maintaining a large Defense Establishment.

The Department of Defense has followed a practice of acquiring its material resources on the free market through a system of com-

petitive defense contracts. Only in times of war has the Department of Defense seen fit to requisition strategic materials at below market prices.

Chairman PROXMIRE. Mr. Oi, could I just interrupt for a minute to say that as I understand it, you are going to abbreviate the article you have here.

Mr. Oi. Yes, I am.

Chairman PROXMIRE. The entire text will be printed in the record, and in addition, of course, your summary which you will give orally.

(The complete prepared article of Mr. Oi, above referred to, follows:)

THE DUBIOUS NEED FOR A DRAFT

(By Walter Y. Oi, University of Washington)

The Selective Service System through compulsion and coercion has supplied the Armed Services with personnel for over twenty-five years. In times of war when nearly all qualified men must serve, Americans willingly accepted the compulsion of a draft as a practical short-run means of obtaining enough men to insure the defense of the nation. However, as the draft became more selective (due to smaller demands by the Armed Forces), the inequities of involuntary military service became apparent. The Marshall and Clark Commissions were both established in the last ten months to study these inequities and to recommend possible changes in the draft law. The reports of both Commissions conclude that a military draft is *needed*. In previous papers (some of which have been reproduced in the Congressional Record),¹ I have argued that the economic cost of a draft is substantial, and the inequities are largely borne by men in the lower-middle classes of the socioeconomic strata. Moreover, my studies of the military manpower problem lead me to the conclusion that conscription is *unnecessary*. In the light of the postwar population growth, military manpower needs can be fulfilled on a voluntary basis.

The first issue is to identify and estimate the real economic cost of the draft. If a draft is continued into the decade ahead, a minority of youths will be forced into involuntary military service. The hidden tax which is placed on them is conservatively estimated to be three times greater than the Federal income tax burden placed on all citizens. The inequity of this hidden tax could be mitigated by enacting pay legislation to raise the entry-level pay of enlisted men.

In Part IV, attention is directed to the feasibility of meeting our military manpower needs without the compulsion of a draft. Pay, living conditions, and fringe benefits would all have to be enhanced to attract enough recruits to sustain prescribed military manpower objectives. I estimate that the cost of staffing an active duty force of 2.7 million men is around \$4 billion a year.

The lower personnel turnover of an all-volunteer force has two salutary effects. One is that fewer men are in a "training" status; consequently, the same effective strength (of men not in training) can be achieved with a smaller overall strength. The other benefit is that fewer initial recruits are demanded to maintain a given strength. Under a draft, with its high personnel turnover (only 7 per cent of draftees reenlist), it is estimated that 27.0 per cent of all males must be demanded by the Armed Forces. However, a voluntary force with greater personnel retention will demand only 19.3 per cent of all youths. In Part V, we briefly examine how adoption of the lottery system of induction is likely to influence the involuntary participation rate of youths in active military service. Finally, Part VI presents some recommendations for a military manpower procurement bill.

¹The papers which I have written include (a) "The Costs and Implications of an All-Volunteer Force" (Congressional Record of March 9, 1967) pp. H2442-52; this paper was read before the Draft Conference at the University of Chicago, Dec. 6, 1966, and is to be published by the University of Chicago Press (May 1967); (b) "The Economic Cost of the Draft," Papers and Proceedings of the American Economic Association (forthcoming, May 1967); this paper was presented to the meetings of the American Economic Association on Dec. 27, 1966, San Francisco, California; and (c) "The Hidden Tax of the Draft," a comment on an article by Congressman Thomas B. Curtis; my comment appears in the appendix to the Congressional Record of March 12, 1967, pp. A1236-7.

DEMAND, SUPPLY, AND A SIMPLE MODEL OF THE MARKET FOR MILITARY PERSONNEL

The manpower needs of the Department of Defense (DOD) are described by force strength objectives—the number of men in the active duty forces or the stock demand for labor. A more meaningful concept of demand is, however, provided by the gross flow demand for new accessions A_t to replace losses during the year L_t and to achieve prescribed changes in force strength $(F_t - F_{t-1})$.²

$$(1.1) \quad A_t - L_t + (F_t - F_{t-1}).$$

The losses L_t are determined by personnel turnover and the size of the force F_{t-1} . Changes in strength objectives $(F_t - F_{t-1})$ also account for variations in the gross flow demand. The demand A_t is tacitly assumed to be completely inelastic; that is, the price or cost of military service has no effect on the number of men demanded.

Military service can surely be regarded as one of the occupational pursuits available to qualified youths. The motives which prompt individuals to enter particular occupations are varied, but an important factor is the pay of an occupation in relation to the pay in competing jobs.³ The supply of new recruits would surely be larger, the higher the level of first term military pay M . Other things equal, the relation between the supply of recruits and first term pay M can be described by a supply curve S as in Fig 1. The demand for new accessions in year 0 is indicated by the vertical line at A_0 . At the current low level of first term pay M_0 (estimated to be around \$2,500 for the first 3.5 years of service), the supply of regular enlistments B falls short of requirements A_0 . The gap BA_0 is filled by inducting that number of draftees. A higher demand meaning a rightward shift of A_0 would thus entail a larger gap to be supplied with involuntary inductions.

The supply curve of recruits S depends on four factors: (1) the population base of qualified youths, (2) alternative civilian pay C , (3) the unemployment rate U , and (4) draft pressure. As the population base of qualified youths grows, the entire supply curve is shifted to the right.⁴ Such a shift moves the point B to the right thereby reducing the deficit BA_0 .

The financial attractiveness of military service vis-à-vis civilian employment is measured by the relative pay of the two, namely M/C . A rise in civilian wages tends, therefore, to shift the supply curve to the left. The availability of jobs as well as the civilian pay C which is received if a job were available, is an equally important factor. The unemployment rate U provides a measure of job availability. According to DOD projections, if civilian unemployment rates were to fall from 5.5 to 4.0 per cent, voluntary enlistments are expected to fall by 16 per cent.

Finally, the coercive threat of a draft affects the supply curve in two ways. Spokesmen for the Selective Service System have testified before Congress that the uncertainty created by a draft liability accounts for substantial numbers of volunteers. College graduates volunteer for officers' commissions because they might be drafted into the Army enlisted ranks. Other youths enlist as regular

² Losses from the active duty strength arise because of failure to reenlist upon termination of obligated tours; discharges for medical/unsuitability reasons; retirement; and death. Voluntary separation at the end of the first term of service account for the largest part of these losses.

³ In the Hearings before the House Armed Services Committee in June 1966 (hereafter referred to as *House Hearings*), the Department of Defense presented data from a survey of civilian males in the draftable ages. According to the DOD survey (confer *House Hearings*, p. 10047), only 8.6 per cent of the surveyed youths indicated that pay was "the most important factor" in choosing a career. The research staff of DOD seems to place considerable weight on these responses when they conclude that pay hikes would not elicit sufficient flows of new recruits. I most heartily disagree with the DOD staff. Survey questionnaires on monetary matters are highly unreliable because people are embarrassed to admit to acquisitive traits. Most teachers would, in all probability, insist that "higher" motives rather than pay attracted them into the teaching profession. Interestingly enough, when the pay of elementary and secondary teachers was sharply advanced in the early 1950's, the supply of new teachers rose dramatically. As I shall argue later, available evidence suggests that the supply of recruits is responsive to pay changes. DOD is, however, reluctant even to give higher entry-level pay a try.

⁴ Over the last fifteen years, the Armed Forces have varied the mental fitness standards requisite to qualify for military service. When supplies of enlistment applicants were large in relation to demands (meaning that draft calls were small), mental standards were raised to ration the available billets to the more highly qualified males. An upgrading of mental standards operates to reduce the supply by denying enlistment to men with low mental-test scores. I shall, in this paper, assume that the Armed Services will maintain constant qualification standards in the years ahead.

enlisted men in order to avoid the uncertainty of possibly being drafted. The extent to which the draft motivated men to volunteer was gauged from a survey administered in the fall of 1964 to men on their first tour of duty. The following percentages responded that they "definitely" or "probably" would *not* have volunteered if there had been no draft obligation:

First-term regular enlisted men.....	38.0
First-term officers.....	41.3
Enlistments to Reserves.....	70.7

If the draft were abolished, it is probable that the Armed Services would lose the draft-motivated enlistments. Put in another way, the supply curve of new recruits to enlisted ranks in Fig. 1 would fall from S to S'—a 38 per cent reduction.

There is a second way in which the pressure of a draft affects the short-run supply of recruits. The time series data shows that high draft calls are associated with larger flows of voluntary enlistments.⁵ When the likelihood of induction climbs as it does in times of strength build-ups to meet brush-fire wars or international tensions, many youths elect to discharge their draft obligations by enlisting in a Service or component of their choice. Indeed, these rightward draft-induced shifts in supply are largest for the non-combat Services, the Air Force and Navy.

According to Fig. 1, military manpower requirements A_0 could be supplied with true volunteers (the curve S') if first-term pay were raised to M_2 . The necessary pay increase ($M_2 - M_0$) will, of course be smaller, the smaller is the demand for new recruits. The demand for new accessions in an all-volunteer force is analyzed in Part V where I estimate the necessary pay increase.

THE INCIDENCE OF INVOLUNTARY MILITARY SERVICE

The draft and its attendant military service obligation have affected the lives of nearly all Americans. Some men have been involuntarily inducted into the Army while still others reluctantly volunteer for service in enlisted and officer ranks of the active-duty forces as well as for positions in Reserve and Guard units. This is not to deny that there are many men who of their own volition choose military service over civilian employment. However, through coercion and compulsion, the draft law has exacted two or more years of involuntary military service from the draftees and reluctant volunteers. The incidence of involuntary military service has not been uniform, nor is it likely to be so under virtually any draft scheme short of all-out universal military service. The question posed in this section is, "Who will be chosen for involuntary service in the years ahead when only a small fraction of all youths will be demanded by the Armed Forces?"

If the present Selective Service System is extended for four years, I have estimated the probable age and educational distribution of reluctant service participants.⁶ To avoid duplication, I shall not describe the methods used to arrive at the distribution shown in Table 1. The current deferment policies, which the Marshall Commission has shown to be so blatantly unfair and arbitrary, favor men with college education. The high school graduates who are bright enough to qualify for military service are the ones who bear the brunt of involuntary military service. They are less informed about the ways in which to beat the draft and reluctantly volunteer before they are drafted.

The Marshall Commission recommended the adoption of a lottery system for selecting draftees. The lottery will produce yet a different composition of involuntary military service. My preliminary analysis of the Marshall lottery reported in Part V indicates that the number of reluctant volunteers will decline. However, the increase in draft calls will more than offset the fall in reluctant

⁵ An analysis of the time series data can be found in an unpublished paper by Anthony Fisher, Institute for Defense Analysis, Arlington, Virginia. Fisher's study shows that voluntary enlistments in mental groups I to III are positively related to draft calls, unemployment rate, and relative military/civilian pay. He obtains a higher elasticity of supply with respect to pay than we do with the cross-sectional data.

⁶ See my paper in the Congressional Record of March 9, 1967, pp. H2442-52. The figures appearing in Table 1 assume an active-duty strength of 2.65 million men and an unemployment rate of 5.5 per cent. If the average unemployment rate in 1970-75 should fall to 4.0 per cent, draft calls are projected to climb from 55.3 to 101.7 thousand men per year.

volunteers, so that the total of reluctant service participants (draftees plus reluctant volunteers) will rise quite substantially. The difference in voluntary service participation across educational groups is likely to be smaller.⁷ The Marshall

	Percent
Less than high school graduate.....	36.4
High school graduate.....	54.2
Some college no degree.....	28.6
College graduate.....	18.9
Total.....	38.5

Commission's lottery entails a higher overall involuntary participation rate because the loss of one regular enlistment (who serves an initial tour of 3.5 years) necessitates drafting at least two more men.

THE HIDDEN TAX OF THE DRAFT

In his statement before the House Armed Services Committee, Assistant Secretary of Defense T. D. Morris stated that the additional budgetary cost of an all-volunteer force of 2.7 million men would be between 4 to 17 billion dollars per year. This is just another way of saying that the present low level of military pay ($M_0 = \$2,500$ per year in Fig. 1) is too low to attract enough men on a voluntary basis. The implication of Morris' statement is that we as a nation *cannot afford* the additional cost of a voluntary force and must instead rely on conscription to meet our military manpower requirements.

At sufficiently high levels of military pay, a majority of youths could be induced to become true volunteers for active military service. There is, in principle, some minimum supply price for each individual M' at which he would be willing to volunteer for the Armed Services even without the threat of a draft. The supply price M' would clearly be higher the greater is the individual's aversion for the discipline and related conditions of military service life. Moreover, the higher is the alternative civilian pay C which he could command, the higher will be his minimum supply price M' . The supply curve of Fig. 1 is a convenient way of summarizing the schedule of supply prices.

To fix ideas, attention is directed to projections of future manpower demands and supplies. According to DOD projections, if the present draft is extended into the years ahead, 1970-75, the annual demand for new accessions to enlisted ranks will be 472 thousand men (assuming a force strength of 2.7 million men and unemployment rate of 5.5 percent.) Given the threat of being drafted and the growth in the population base, it is estimated that $B = 416.7$ thousand men will volunteer as regular enlistments. However, $CB = 153.7$ thousand regular enlistments can properly be regarded as draft-motivated enlistments who would not have enlisted in the absence of a draft. In a sense, these men were coerced to enlist at the low level of military pay M_0 . If we assume that these reluctant volunteers had the lowest supply prices in the absence of a draft (i.e. they were next in line above the point F in Fig. 1), the cost of involuntary military service for these men is given by the triangle FEG . To amplify, Mr. X might have been willing to volunteer even without a draft liability if first term pay were $M' = \$3,000$. However, with a draft liability, he is coerced to enlist at a pay of $\$2,500$ lest he be drafted. The differential of $\$500 = \$3,000 - \$2,500$ is the cost to X of involuntary military service. If these costs are summed for all reluctant volunteers, a lower bound estimate is given by the area FEG in Fig. 1. Using a liberal estimate of the supply elasticity, the area FEG is seen from Table 3 to be \$141 million. This cost is surely an implicit or hidden tax that is levied against those reluctant volunteers who were coerced to serve by a draft liability.

The implicit cost of involuntary service by draftees is harder to assess. The Selective Service System does not overtly try to draft men with the lowest supply prices. Hence some individuals with high alternative civilian incomes C or with great aversion for service life pay a substantial implicit cost when they are inducted. A lower bound estimate of this implicit cost, can, however, be obtained by assuming that drafters had the lowest supply prices above the point G in Fig. 1. The annual implicit cost borne by draftees is thus given by the quadrangle $GEDH$ or 175 million dollars.

⁷ The percentage of involuntary service participants in relation to the base of qualified males indicates the incidence of involuntary service. Under a continued Selective Service System draft, these percentages will be:

The pay raises legislated by Congress over the last fifteen years have mainly applied to the career force. Entry level pay for the first two years of service was kept low because the draft could guarantee an adequate supply of new accessions. As a result, the military pay profile as a function of years of service exhibits a sharp discontinuity; confer Table 2.⁸ Annual military income rises by 39.6 per cent between the second and third years as compared to an average annual percentage increase of only 4.7 per cent between the fifth to eighth years. The inordinately low levels of first term pay magnify the size of the hidden tax that is paid by reluctant service participants.

The hidden cost of involuntary military service can thus be measured by the difference between M', the supply price at which the individual could be induced to become a true volunteer, and M₀, the current level of first term pay. If these hidden costs or taxes are summed, we obtain the annual implicit costs of \$141 million for reluctant volunteers and \$175 million for draftees. The reluctant service participants from an age class (a cohort born in a specific year) are obliged by the draft obligation to serve from two to four years. The aggregate implicit costs shown in the third panel of Table 3 are obtained by multiplying the annual costs by the average length of involuntary service.⁹ The aggregate hidden tax of \$826 million assumes that each reluctant service participant would be compensated in a discriminatory fashion, thereby neglecting the rents that would otherwise have been earned by the true volunteers. Thus, if the hidden cost of involuntary service were \$1,000 for a particular reluctant volunteer, this \$1,000 would not be paid to true volunteers as it would be if labor were procured in a competitive labor market. Hence, failure to compensate the reluctant volunteers entails a foregone income loss for the true volunteers who enlist at the low first term pay of \$2,500 per year.

The magnitude of the hidden tax that is levied against each reluctant volunteer and draftee is shown in the last two panels of Table 3. The financial inequity of the draft is truly shameful when these hidden taxes are compared to the burden of the Federal individual income tax. Table 4 presents the data on income tax receipts by the Internal Revenue Service in relation to four populations. The burden of the Federal income tax was only \$646 per year for each adult over 18 years of age, while the hidden tax that was implicitly paid by each draftee was \$3,169 per year. The draftee is thus compelled to pay a hidden tax that is 4.9 times as large as the tax burden placed on all citizens.

It should be remembered that my procedure for estimating the hidden tax of involuntary service tends to under-estimate the real cost since it assumed that reluctant service participants had the lowest supply prices in the absence of a draft. Moreover, the costs of Table 3 apply only to men in the enlisted ranks. Fully 41 per cent of newly commissioned officers and 71 per cent of enlistments to reserve units were estimated to be draft-motivated volunteers. These men also were coerced to serve at below market rates of pay because of the draft obligation.

The inequity of draft is accentuated by the absurdly low levels of entry level pay. Even including the imputed value of board and keep, the typical private earns a monthly income of \$158 per month—far below the minimum wage legislated by Congress. In 1964, the typical reluctant volunteer could have earned \$287 per month in the civilian economy, while the draftee who is older could have earned \$317 per month. If a draft must be continued, I strongly recommend that entry level pay be sharply advanced to eliminate the financial cost of involuntary military service. When only a fraction of all youths must be involuntarily put into military service (and bear the risks coincident with such service), why should we insist that they also suffer financial losses during their period of service? That the entry level pay of an American soldier is below that of the Canadian and Australian recruit, is, in my opinion, inexcusable.

THE COST AND FEASIBILITY OF AN ALL-VOLUNTEER FORCE

Recent discussions on the draft question have devoted little attention to the basic issue of the *need* for a draft. The Marshall Commission in its 219-page report allotted two pages to establish the *need* for extension of some form of draft

⁸ The annual military incomes of Table 2 include the following pay items: (1) base pay, (2) quarters and subsistence allowances if received in money, or their imputed value if provided in kind, and (3) an implicit tax advantage due to the fact that some pay items are regarded as non-taxable income.

⁹ Because of attrition during the first term, the average length of service is only 1.9 years for draftees and around 3.5 years for regular enlisted men.

law. The transcript of the House Hearings in June 1966 suggests that the members of the House Armed Services Committee are not terribly interested in studying the cost and feasibility of meeting our military manpower requirements on a voluntary basis. The arguments against an all-volunteer force can be put in capsule form as follows:

1. It would be too costly.
2. It could not achieve the *requisite flexibility* in force strengths to insure the defense of the nation and to meet our international obligations.
3. It would have possibly undesirable social consequences such as a military class or an all-Negro army.

4. It is inconsistent with the American heritage of a citizen militia. The reader could undoubtedly supply other arguments against the adoption of a voluntary manpower procurement system. The last two criticisms listed above can, I believe, be more forcefully refuted by others—Congressman Thomas Curtiss and Professor Milton Friedman for example. I shall briefly examine the flexibility issue in Part VI below. In this section attention is directed to the cost of an all-volunteer force.

Under any procurement system, the demand for new recruits A_t is determined by the losses during the year L_t and planned changes in force strengths ($F_t - F_{t-1}$). If peacetime force strength objectives are stabilized, $F_t - F_{t-1}$ will be equal to zero. Hence demand A_t will depend only on losses L_t which, in turn, are determined by personnel turnover and the size of the active duty force. The losses due to personnel turnover can be estimated from a retention profile describing the proportion of men remaining in service N years after initial entry. The retention profile for a mixed force of conscripts and volunteers (38 per cent of whom were reluctant volunteers) was estimated from the experience of the late 1950's and is shown in the first two columns of Table 5. A perusal of Table 5 reveals that voluntary separations upon completion of the first term of three to four years account for the largest part of personnel turnover. Over the period FY 1957-64, the average first term reenlistment rate of voluntary enlistments was 25.6 per cent, while that of draftees was only 7.7 per cent. The retention profile of the mixed force implies an annual turnover rate of 18.9 per cent for enlisted men; this turnover rate climbs as the fraction of two-year draftees increases.

If all initial accessions were true volunteers, the Armed Services would enjoy a substantially lower turnover rate. The first term reenlistment rate of Negroes is around 49 per cent as compared to a Regular Army reenlistment rate of only 22 per cent. The reason for this large difference is apparent. Negroes do not suffer from pay discrimination in the Armed Services. In the civilian economy, they earn substantially less than their white counterparts because of job and pay discrimination by civilian employers. Military service is a far more attractive alternative to the Negro who can meet the mental qualification standards. They are more likely to volunteer, and once in service, far more likely to reenlist. If all initial inputs were true volunteers (as indeed most Negro volunteers presently are), we could expect a similar climb in reenlistment rates especially if recruits do not suffer from the wage exploitation that they now do. I estimate that the first term reenlistment rate in an all-volunteer force would be 36.6 per cent as compared to an average of only 25.6 per cent in the preceding eight years. Hence, the retention profile of enlisted men should shift toward greater retention as indicated by the last two columns of Table 5. From the estimated retention profile applicable to a voluntary force, I estimated the required accessions for alternative force strengths. The required accessions for a mixed force were taken from the Marshall Commission report, p. 14.

Required accession to enlisted ranks in voluntary and mixed forces

Active duty force strength	Enlisted strength	Voluntary force	Mixed force ¹
2,500,000	2,175,000	314	452
2,650,000	2,310,000	334	500
3,000,000	2,658,000	384	609
3,300,000	2,937,000	426	732
3,500,000	3,115,000	452	812

¹ Figures for the 2,500,000, 3,000,000, and 3,500,000 strengths were taken from the Marshall Commission report, p. 14. The estimates for the strengths of 2,650,000 and 3,300,000 were interpolated.

The mixed force which includes inputs of draftees and reluctant volunteers has a higher personnel turnover accounting for the larger flows of required accessions. The required accessions to the voluntary force contain an upward bias, since I have not adjusted the data for the savings which obtain from lower personnel turnover. These savings derive from fewer men being in a training status. Men engaged in training others can be reassigned to other duties, and the total force strength can be cut while retaining the same number of men in an effective (non-training) status.

The required accessions of 334 thousand recruits to sustain a voluntary force of 2.65 million men is far smaller than the required accessions of 500 thousand for the mixed force. Hence, the line A_0 in Fig. 1 is to the left of where it is now drawn. To determine the necessary pay level M to attract 334 thousand recruits on a voluntary basis, we had to estimate the supply curve S' . I shall not, in this paper, repeat the methods by which we estimated this supply curve. The supply curve which I used in my calculations is essentially the same as that used in the DOD study.

If the estimated supply curve is juxtaposed to the demand, I estimate that first term pay must be raised by 68 per cent, from \$2,500 to \$4,200 per year. The entry level pay of recruits in their first year of service would climb from \$1,900 to \$3,900 per year, or a monthly pay hike of \$167 per month. The sharp projected rise in first term pay would, moreover, create a pay inversion wherein men in their fourth and fifth years of service would be earning less than new recruits. To prevent such pay inversions, the pay of the career force was raised by 17 per cent. In addition, the pay profile of officers was adjusted to eliminate the low level of entry pay; this adjustment raised the pay of newly commissioned officers by 21 per cent.

The pay schedules that would be needed to attract enough recruits on a voluntary basis were applied to the anticipated age structure of the voluntary force. For an active duty force strength of 2.65 million men, I estimate that income payments to active duty military personnel would have to rise by \$4 billion per year.

The methods by which I arrive at an estimate of the cost of an all-volunteer force can be criticized on several grounds. Some of the more important criticisms which I have received include the following:

(a) Steady state requirements: The demand for new recruits presumes a steady state in which the retention profile of a voluntary force applies. During the transitional period, losses will be larger with a corresponding rise in required accessions. My failure to acknowledge the transitional demands thus imparts a downward bias to my cost estimate. However, if force strengths are to be reduced to 2.65 million (from their FY 1966 level of 3.1 million), the transition poses only a minor adjustment in my cost estimates.

(b) Army requirements: The shortfall between voluntary supplies and demands is projected to be largest for the Army. In estimating the necessary pay increase of 68 percent, I used the deficit in Army requirements. As a consequence, the other three Services are projected to enjoy excess supplies of enlistment applicants. If there is any spillover of enlistment applicants across services, (i.e. if a man who is denied entry into the Navy tries later to enlist in the Army), my procedure overstates the cost of meeting military demands on a voluntary basis.

(c) Method for implementing the pay increase: I have tacitly assumed that the 68 per cent pay increase will redound to recruits in the form of higher base pay. The annual base pay of a private in his first year of service is projected to rise from \$1,200 to \$3,200. That is, his pay climbs from \$100 per month now to \$267 per month. Some critics have correctly argued that this is a rather inefficient means of distributing higher pay, especially when the other Services have too many enlistment applicants. A system of variable enlistment bonuses or pay differentials across Services could produce substantial savings, thereby lowering my cost estimate of \$4 billion.

(d) Savings from lower personnel turnover: I have completely ignored the savings from lower personnel turnover resulting in fewer men in a training status. If the active duty force can be cut by as little as 5 per cent because more men are in an effective, non-training status, the military pay budget would fall by \$0.8 billion. Inclusion of this saving thus lowers the cost of an all-volunteer force from \$4.0 to \$3.2 billion.

(e) Civilian substitutions: Many jobs which are presently staffed with uniformed personnel could be equally well performed by civilians. If military pay is sharply advanced (as I estimate it will be), it becomes economical to substitute a civilian for a Serviceman thereby lowering total labor costs. In addition to the

direct reductions in labor costs, the Armed Services will realize an indirect savings, namely fewer recruits will be demanded. Hence, the necessary pay increase to attract recruits can be lowered. The potential savings from the substitution of civilians for uniformed men could be substantial.

(f) Validity of the cross-sectional complement supply curve: The supply curve S' which was used to estimate the necessary pay increase was derived from cross-sectional regional data on voluntary enlistment rates for men in mental groups I to III. It is essentially the same supply equation as that used in the DOD study.¹⁰ The underlying data pertained to the enlistment experience in calendar year 1963, the only year for which such data were available. I agree with the skeptics that it is a slim piece of evidence. There are, however, some other bits of evidence which confirm the implications of the estimated supply equation. An economy which is quite similar to ours, namely Canada, has sustained a voluntary military establishment that is roughly half the size of the U.S. in relation to the population base. The entry level pay of the Canadian recruit is around 20 per cent higher than that of the U.S. soldier. Given the growth in the population base, the force strength of 2.65 million men corresponds to a force that is between 25 and 33 per cent larger than Canada's on a per capita basis. We should be able to staff a force of that size if pay is increased by 68 percent. Until we raise entry level pay, there is no real test of whether our estimated supply curve is correct. I have reasonable confidence in it because of my observations of the Canadian experience and of the enlistment behavior of Negroes. If the pay of military service can be put on a footing comparable to pay in the civilian sector, it should not be difficult to attract one man in five—and that is all we need to staff a force of 2.65 million men.

Only one of the six criticisms listed above implies that my cost estimate is too low. The DOD estimates of \$17 billion imply that we would have to pay men over \$7,000 per year to attract but one man in five. I grant that the cost estimate may contain some random error, but not an error of +\$13 billion.

I have made some rough calculations on the cost of sustaining an active duty force of 3.0 million men—the active force strength as of 30 June 1966. According to the complement supply curve, the necessary pay increase climbs from 68 to 94 per cent. The average annual first term pay (over three years of service) climbs from \$4,200 to \$4,850. Defense expenditures for active duty military personnel would, of course, be higher for both the voluntary force and the mixed force of conscripts and volunteers. The budgetary cost to sustain a voluntary force of 3.0 million men is estimated to be \$6.7 billion higher than that of a mixed force.

In closing this section, it should be repeated that the budgetary cost of military personnel is *not* the *real* economic cost of labor resources allocated to the defense establishment. With a force strength of 3.0 million men, the incidence of involuntary military service climbs dramatically. More men from each age class are coerced or compelled to serve against their wishes. The real cost is high for those who are selected to serve, while those fortunate or slippery enough to avoid military services are subsidized by the inordinately low pay awarded to the draftee.

IMPACT OF THE LOTTERY ON VOLUNTARY ENLISTMENTS

The lottery (fair and impartial random selection system) has been recommended by the Marshall Commission as the most equitable means of conscripting men. Equity here is construed to mean that every individual bears the same risk of involuntary military service. In evaluating the desirability of the Marshall Commission's lottery, I would like to raise the question of "How will the adoption of a lottery influence the need for a draft?" Equity meaning equal probability of indication can surely be achieved by a lottery, but what will be the level of that probability or risk? This issue was only briefly raised in the Commission's report and never answered.

The larger is the flow of voluntary enlistments, the smaller is the need for draftees. A rough estimate of the impact of a lottery on voluntary enlistments can be obtained from the age distribution of enlistments and the extent of draft-motivated enlistments. Special tabulations prepared by the DOD statistical office provide estimates of the age at entry of voluntary enlistments in FY 1960-64; these are shown in Table 6. Fully 32 per cent of all enlistments were nineteen

¹⁰ A fuller discussion of the methods by which this supply curve was estimated can be found in "The Supply of Military Personnel in the Absence of a Draft," by A. Fechter and S. Altman (to be published in Papers and Proceedings of the American Economic Association, May 1967).

years of age, and 71.5 per cent were nineteen or older at the time of enlistment. There is a slight trend toward older ages in periods of high draft calls, but the trend is slight. The uncertainty of being drafted motivates many of these men to enlist for tours of three to four years. According to the 1964 DOD survey, the percentage of draft-motivated enlistments who were 20 or older at time of entry was 59.5 per cent as compared to only 31.3 per cent for men who were 17 to 19 years of age.

According to the Commission's lottery proposal, men would be examined at age 18.5. Qualified males reaching the age of nineteen would then be arrayed into an order of call by some random selection system. We can imagine that each man is assigned a number, say from 1 to 2 million if there were 2 million men in the pool. The lowest numbers would be called first. The status of student deferments has not been resolved, but for the sake of this paper, I shall assume that they are put into the qualified I-A pool and assigned numbers.

The size of the draft call in any year, D_t , is determined by the gap between requirements A_t and voluntary supplies of enlistments E_t . Personnel turnover will, moreover, influence requirements A_t . The loss of one regular enlistee who serves for three or four years, necessitates the induction of two or more men each serving only two years. By eliminating the uncertainty of being drafted, the Armed Services are likely to lose some of the draft-motivated enlistments who must be replaced by two-year draftees. If men with low numbers are permitted to volunteer, some fraction of them will do so.

Under a continued Selective Service draft, the DOD projections for FY 1970-75 indicate annual flows of 416.7 thousand voluntary enlistments, of whom 71.5 per cent, or 298 thousand men, will be nineteen or older. At most, only 15 to 20 per cent of the qualified pool will be affected by the lottery if peacetime force strengths revert to their pre-Vietnam levels. Hence, we can conservatively estimate to lose 80 per cent of the draft-motivated enlistments who were 19 or older.¹¹ This loss of 112 thousand enlistments would result in a rise in the size of the draft calls from 55.3 to 279 thousand men per year.

By reducing the uncertainty of being drafted, the lottery is anticipated to result in larger draft calls. The decline in voluntary enlistments could be offset if pay were advanced to make military service competitive with civilian jobs. Such a pay increase would have the added merit of mitigating the financial inequity of involuntary service for those who are drafted by the lottery.

SOME RECOMMENDATIONS FOR A MILITARY MANPOWER PROCUREMENT BILL

The expiration of the present draft law on June 30, 1967, means that Congress must enact legislation within the next six weeks. The Universal Military Training and Service Act of 1951 and its subsequent extensions are almost exclusively concerned with the problem of manpower procurement. There is little if any attempt to integrate the manpower procurement system into an overall military manpower policy of the Department of Defense. The reports of the Marshall and Clark Commission are guilty of this same myopia. I have argued in the preceding section that the adoption of the lottery implies a greater need for the draft because it entails higher personnel turnover. That younger men are more desirable for the combat positions is not being questioned. However, one should also inquire about the supply of men for the highly technical positions which require long training periods. The voluntary force with its greater retention can achieve this latter objective more efficiently.

All proposals which have been put before Congress entail radical changes in military manpower procurement practices. The Vietnam War is not a global conflict requiring the services of nearly all qualified males. The manpower procurement bill which Congress enacts should not, therefore, be dominated by short-run considerations. Instead, it should address itself to the peacetime military manpower needs of the defense establishment. In the light of these considerations, I would like to make some recommendations with the following objectives in mind:

- (a) To design a system of military manpower procurement which places maximum reliance on volunteers;

¹¹ The DOD survey of first-term enlisted men indicates that the pressure of a draft liability accounted for 46.9 per cent of voluntary enlistments who were 19 or older at the time of entry. In the projection years 1970-75, it is estimated that 298 thousand volunteers will be 19 or older. Multiplying 469 x 298 yields 140 thousand draft-motivated volunteers. Since 80 per cent of these will be bypassed in the lottery, $0.8 \times 140 = 112$ thousand is the estimated loss of voluntary recruits.

(b) To raise first-term pay, thereby alleviating some of the financial inequity of involuntary military service;

(c) To examine the overall military manpower policies of the Department of Defense with the aim of achieving greater efficiency in the utilization of the nation's scarce labor resources.

With these objectives in mind, I propose the following recommendations to be considered for possible inclusion in the military manpower procurement bill which will replace the present draft law.

1. *Two-year Extension of a Draft.*—A draft law which includes as a minimum recommendation 2 and 3 below, should be extended for a period of only two years rather than the four years proposed by the Marshall Commission.

Since all the alternatives proposed to date entail radical changes in the nature and implementation of a draft liability, Congress should exercise some caution and allow for possible revision in the light of experience under any new draft law. During the first year, data on its operation can be assembled. In the second year, these data can be studied to determine its strengths and weaknesses. If the law operates in an efficient and reasonably equitable fashion, Congress could easily extend it in 1969. On the other hand, if serious shortcomings are uncovered, youths in the vulnerable draft ages need not be subjected to four years of an inequitable draft law. The two-year extension is sufficiently long to permit compilation and analysis of relevant data while not causing a prolongation of a badly conceived law.

2. *Lottery of the 21-year-olds.*—Under the current draft law, an individual can remain in a draft-vulnerable status for seven and one-half years. To alleviate costs to the individual arising from the possibility of his being drafted, the Marshall Commission has proposed a lottery of 19-year-olds to shorten the period of draft uncertainty. However, as argued in Part V above, the uncertainty of a draft is not an unmitigated evil. To eliminate nearly all such uncertainty (as the present lottery proposal would do) leads to the loss of substantial numbers of voluntary enlistments. This loss necessarily entails a more than twofold increase in draft calls, thereby increasing the fraction of each age class that must be subjected to involuntary military service. The objective of placing maximum reliance on volunteers suggests an intermediate method of selecting draftees which would entail a smaller loss of reluctant volunteers, thereby lessening the need for a draft. Its essential features can be summarized as follows:

(a) All qualified youths are to be classified at the age of 18 into three draft classifications: (1) I-A and available for service, (2) II-S student deferments, and (3) hardship and conscientious-objector exemptions. Hardship deferments will be granted on an individual basis, using criteria similar to those of eligibility for the poverty program.

(b) Men who obtain a student deferment are placed in a state of suspended animation at a draft age of 19. Upon termination of their student deferments, they are returned to the I-A pool and assigned a draft age of 19. Thereafter, their chronological age is ignored, and their draft status within the I-A pool is entirely determined by their draft age.

(c) The period of maximum draft vulnerability will be limited to two years. Men whose draft age exceeds 21 are placed into a lower order of call for five years and can be called only when the I-A pool is depleted.

(d) The order of call within the I-A pool will begin with the oldest. Recall that the oldest men in the I-A pool have a draft age of 21. If monthly requirements are less than the pool of men reaching their 21st "draft birthday" in a particular month, a random selection of birthdates determines the ranking within that month.

(e) All occupational and dependence deferments (other than hardship) will be discontinued.

This lottery of 21-year-olds has the advantage of retaining the flows of reluctant volunteers in the 19- and 20-year-old groups. Hence, the loss of reluctant volunteers in this system of induction is only 42 thousand men per year as compared to the estimated loss of 112 thousand enlistments under the Marshall Commission proposal. If the pay hike of recommendation 3 is adopted (and I hope that it is), the financial cost of involuntary service by the reluctant volunteers will be far smaller. Indeed, the pay raise will attract larger flows of volunteers, so that there may not even be a loss of voluntary enlistments under this proposal.

3. *Overdue Adjustments in Military Compensation.*—That the absurdly low levels of first-term military pay are an embarrassment, is manifest in the myriad of post-service veteran benefits. The G.I. Bill, subsidized home mortgages, medical care, and life insurance policies for veterans all exemplify attempts to remedy the financial burden of military service. The high time preference of youths suggests that these post-service benefits are highly discounted in any calculation of the financial rewards of active military service. I strongly recommend that the military pay profile be adjusted upward according to the schedule proposed below:

Proposed adjustments in the compensation of enlisted men

Years of service	Present pay ¹	Proposed pay	Percentage increase
1	1,830	3,130	71.0
2	2,143	3,380	57.7
3	2,991	3,630	21.4
4	3,344	3,880	16.0
5	4,130	4,130	---

¹ Figures represent annual military incomes consisting of (1) base pay, (2) quarters and subsistence allowances, and (3) implicit tax advantage. The data pertain to the pay scales as of fiscal year 1963.

If these pay increases are adopted, the budgetary payroll cost for an enlisted strength of 2.31 million men (corresponding to a total strength of 2.65 million) would climb by \$1,368 million. Moreover, the pay increase is estimated to increase Army enlistments in the absence of a draft by 48 per cent. Finally, the hidden tax of the draft would be sharply reduced, thereby lessening the financial cost of service for the reluctant service participants. Whatever else is done, this one recommendation deserves serious consideration and, I hope, adoption.

4. *Flexibility and the Role of the Reserves.*—A professional voluntary army has been severely criticized on the ground that it does not have the requisite flexibility to meet short-run demands for active-duty personnel. What amount of flexibility is required of a voluntary force has never been specified. Within FY 1954-65, the largest year-to-year increase in the active-duty strength has been under 350 thousand men. In the recent Vietnam build-up when no reserves were activated in significant numbers the active-duty force strength climbed by 438 thousand men. (See footnote 11.)

During the Berlin crisis of FY 1962, substantial numbers of reserves were recalled to active duty. The political aftermath of that incident seems to have neutralized the Reserve and National Guard units as a source of manpower for the active-duty forces. Presently around 1.3 million men are on a ready, paid-drill, reserve status. If this reserve strength were reduced to 700 thousand men who were paid competitive wages, they could provide the needed flexibility for an all-volunteer force. The present organization of reserve units defies rational explanation. A careful study of the role and function of reserve units should, I believe, be undertaken as part of an integrated study of military manpower utilization. It should, moreover, be linked to the initial procurement policies. A truly ready reserve can, in my opinion, supply the desired degree of flexibility.

5. *Toward an Integrated Military Manpower Policy.*—The procurement, retention, and utilization of manpower should logically fit into an integrated military manpower policy. To the best of my knowledge, there is no overall conceptual framework within which one can evaluate specific policy proposals. The draft, for example, is largely examined with only passing reference to the utilization and retention of uniformed personnel. The techniques of systems analysis, which have been so widely used in cost-effectiveness studies of weapons systems, have not been carried over into manpower problems. In evaluating alternative manpower policies with these techniques of systems analysis, care must be taken to use the appropriate cost of labor resources. Because of the low levels of first term pay, the DOD budgetary costs are *not* the real economic costs of labor resources allocated to the Armed Services. I believe that further studies should be made of (a) qualification standards for enlisted men, (b) qualification standards for junior officer ranks, (c) adjustments in the retirement program to permit separation bonuses after ten to twelve years of service, (d) variable enlistment

bonuses for men who sign for longer initial tours of duty, and (e) possibilities of substituting civilians for uniformed personnel, especially in the para-medical and clerical fields.

In order to maintain a large defense establishment, the nation must allocate substantial flows of labor and material resources to the Armed Services. The Department of Defense has followed a policy of acquiring its material resources (armaments, ships, planes, etc.) via the free market through a system of defense contracts. Only in wartime and periods of true emergency has the Department seen fit to requisition strategic materials at noncompetitive prices. However, when it comes to recruiting labor resources, the Department of Defense assumes an altogether different posture, refusing to place greater reliance on the competitive labor market and continuing to pay servicemen at below market rates of pay. Conscription and coercion (the counterparts to wartime requisitions) thus persist in peacetime. The *need* for a peacetime draft has *not* been established, nor is it likely to be established. The facts of the matter are that we do not need a peacetime draft. Our military manpower needs can be met on a voluntary basis if we as a nation are prepared to pay competitive wages to new recruits, rationalize the role of the reserves, and initiate efficient manpower utilization practices.

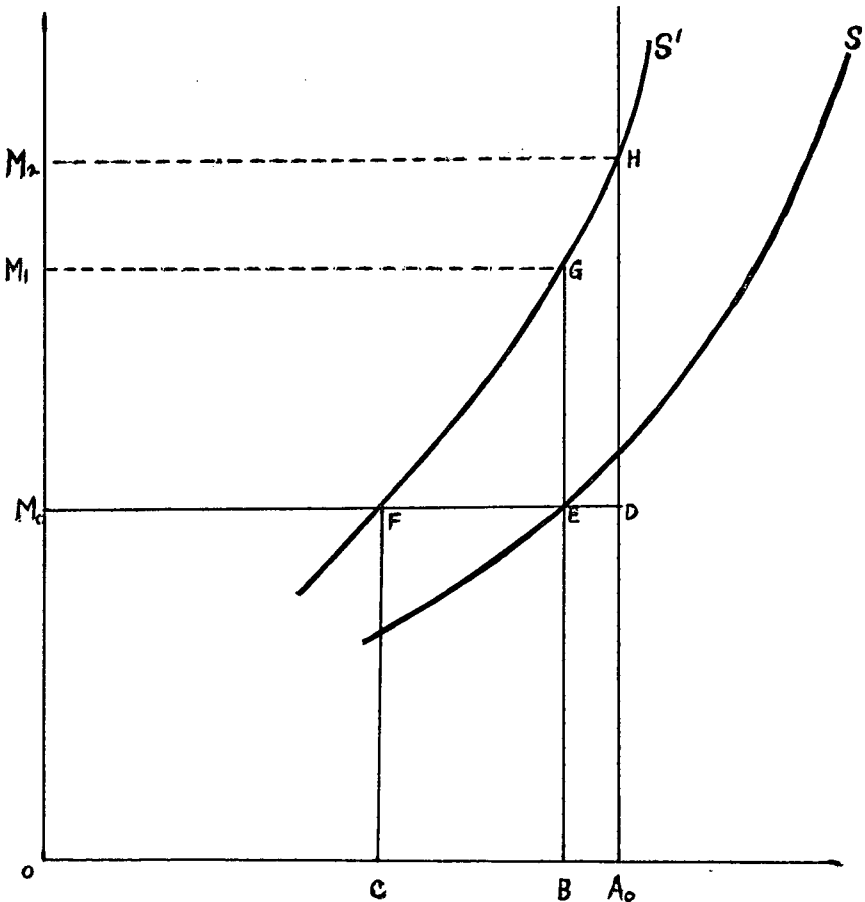


Figure I

TABLE 1.—*Projected accessions to enlisted ranks under a continued draft, fiscal years 1970-75*

[By age at entry, education, and draft motivation]

	Years of school completed					
	Total	0 to 8	9 to 11	12	13 to 15	16 and over
Voluntary enlistments under a continued draft:						
17 to 19 years.....	328.5	15.0	107.2	188.0	18.3	0
20 years and older.....	88.2	1.4	12.9	42.8	25.8	5.3
All ages.....	416.7	16.4	120.1	230.8	44.1	5.3
Reluctant volunteers:						
17 to 19 years.....	102.4	3.0	23.0	68.3	8.1	0
20 years and older.....	51.3	0.4	5.3	24.7	17.8	3.1
All ages.....	153.7	3.4	28.3	93.0	25.9	3.1
Inductions.....	55.3	4.3	15.2	21.9	10.5	3.4
Reluctant military service participants:						
17 to 19 years.....	102.4	3.0	23.0	68.3	8.1	0
20 years and older.....	106.6	4.7	20.5	46.6	28.3	6.5
All ages.....	209.0	7.7	43.5	114.9	36.4	6.5

TABLE 2.—*Annual military incomes of enlisted men (for pay scales of fiscal year 1963)*

Years of service	Total income, DOD	Army			Base pay as percent of total income
		Total income	Taxable income	Base pay	
1.....	\$1,830	\$1,900	\$1,058	\$1,055	55.5
2.....	2,143	2,304	1,359	1,382	60.0
3.....	2,991	3,247	2,199	2,002	61.7
4.....	3,344	3,711	2,392	2,433	65.6
5.....	4,130	4,248	2,691	2,575	60.6
6.....	4,462	4,465	2,792	2,725	61.0
7.....	4,649	4,596	2,937	2,858	62.2
8.....	4,741	4,797	3,037	3,003	62.6
9 to 12.....	5,235	5,377	3,409	3,250	61.0
13 to 16.....	5,926	6,043	3,918	3,885	64.3
17 to 20.....	6,387	6,414	4,245	(¹)	-----

¹ Not applicable.TABLE 3.—*The hidden cost of involuntary military service*

	Low estimate ($\beta=0.402$)	Middle estimate ($\beta=0.315$)
Annual 1st-term pay (for 3.5 years):		
M_a	\$2,500	\$2,500
M_1	4,700	5,600
M_1'	5,900	7,450
Annual cost excluding rents (in millions):		
Reluctant volunteers.....	141	192
Draftees.....	175	243
Aggregate cost for members of an age class (in millions):		
Reluctant volunteers.....	493	672
Draftees.....	333	462
Total.....	826	1,134
Total per capita cost excluding rents: ¹		
Reluctant volunteers.....	3,208	4,372
Draftees.....	6,022	8,354
Total.....	3,952	5,426
Annual per capita cost: ²		
Reluctant volunteers.....	917	1,249
Draftees.....	3,169	4,307
Total.....	1,317	1,809

¹ The per capita cost assumes that there were 153,700 reluctant volunteers and 55,300 draftees.² The annual per capita cost is the total per capita cost divided by average length of service: 3.5 years for reluctant volunteers and 1.9 years for draftees.

TABLE 4.—Federal individual income taxes, 1962-66

	1962	1963	1964	1965	1966
Aggregates:					
Individual income-tax receipts (in millions).....	63,358	67,992	71,593	70,765	81,534
Number of tax returns filed (in thousands).....	62,487	63,679	65,154	66,965	69,724
Civilian labor force (in thousands).....	71,854	72,975	74,233	75,635	77,041
Population 21 years of age and over (in thousands).....	110,876	111,513	113,133	114,224	¹ 115,355
Population 18 years of age and over (in thousands).....	119,206	119,824	121,280	123,387	¹ 126,151
Per capita Federal income taxes:					
Per return.....	1,014	1,068	1,099	1,057	1,169
Per member of labor force.....	882	932	964	936	1,058
Per adult over 21.....	571	610	633	620	707
Per adult over 18.....	532	567	590	574	646

¹ Estimated by extrapolation.

Sources: Treasury Department; Internal Revenue Service, annual report of the Commissioner; and Statistical Abstract of the United States.

TABLE 5.—Retention profiles of enlisted men in mixed and voluntary forces ¹

Years of service, N	Mixed force		Voluntary force	
	Survival rate	Cumulative percent	Survival rate	Cumulative percent
0.....	1.0000	18.9	1.0000	13.9
1.....	.9149	36.1	.9161	27.7
2.....	.6494	48.4	.8326	38.2
3.....	.4710	57.3	.5742	46.2
4.....	.1631	60.4	.2868	50.2
5.....	.1563	63.3	.2673	53.9
6.....	.1456	66.1	.2490	57.4
7.....	.1407	68.7	.2406	60.8
8.....	.1365	71.3	.2334	64.0
9.....	.1281	73.7	.2191	67.0
10.....	.1125	75.8	.1924	69.7
15.....	.1002	85.7	.1703	82.1
20.....	.0818	94.5	.1391	93.1
25.....	.0283	98.1	.0481	97.7
30.....	.0150	100.0	.0255	100.0
Total.....	5.2981	-----	7.1875	-----

¹ Data are based on the experience of the late 1950's. The survival rate is the proportion of men remaining in service N years after entry. The cumulative percentage of men with N or fewer years of service in a steady state is shown in the 2d and 4th cols.

TABLE 6.—Distribution of voluntary enlistments by age at enlistment ¹

[Total DOD, fiscal year 1960-64 in thousands]

Age at enlistment	1960	1961	1962	1963	1964	Average
Number of voluntary enlistments:						
17.....	19	15	14	13	13	14.8
18.....	88	85	81	65	68	77.4
19.....	99	114	115	98	91	103.4
20.....	50	60	66	61	61	59.6
21.....	21	28	32	30	39	30.0
22 and over.....	24	33	54	31	49	38.2
Total.....	301	335	362	298	321	323.4
Percentage distribution:						
17.....	6.3	4.5	3.9	4.4	4.0	4.6
18.....	29.2	25.4	22.4	21.8	21.2	23.9
19.....	32.9	34.0	31.8	32.9	28.3	32.0
20.....	16.6	17.9	18.2	20.5	19.0	18.4
21.....	7.0	8.4	8.8	10.1	12.1	9.3
22 and over.....	8.0	9.9	14.9	10.4	15.3	11.8
Total.....	100.0	100.0	100.0	100.0	100.0	100.0

¹ The age at time of enlistment is estimated by year of birth. Men who were born in calendar year 1940 and who enlisted in fiscal year 1960 were classified as being 20 years old. However, because of the 6 months overlap between calendar and fiscal years, they could have been between 18.5 and 20.5 years of age.

Mr. Or. It has only been in times of war that the Department of Defense has requisitioned material resources. However, when it comes to acquiring the necessary manpower resources, the Department of Defense has assumed an altogether different posture.

Conscription and coercion, which are the counterparts of requisition, have been the principal means of acquiring the necessary flows of labor.

I propose to argue that a draft and its compulsion are unnecessary in the light of the growing population pool, if we return to a strength of between 2.7 to 3 million men and if we raise pay substantially.

The four principal issues to which I have addressed myself in this paper are: No. 1, Who bears the burden of involuntary military service?

No. 2, What is the real cost of military service to those who are coerced to serve?

No. 3, What is the budgetary cost of meeting military manpower needs on a voluntary basis?

No. 4, and lastly, In the light of the current Vietnam situation, what steps can we take to formulate a rational military manpower procurement policy?

First and foremost, the draft imposes a burden on American youths in four ways: Most obviously, some men are drafted.

Second, many youths reluctantly volunteer for enlisted ranks, officer commissions, and Reserve positions, in order to avoid being drafted. DOD surveys indicate that 38 percent of voluntary enlistments, 41 percent of officers, and 71 percent of enlistments to Reserve units can properly be regarded as reluctant participants who would not have volunteered in the absence of a draft.

The incidence of active military service has largely rested with the lower middle classes, men who do not have the wherewithal or the capabilities of continuing on to college, and, in this sense it has been a regressive incidence.

The two other burdens implicit in the draft, which I will mention and leave, are first, the uncertainty caused those youths who, rather than volunteer, would choose to wait and take their chances with the draft; and lastly, that because of the inordinately low pay levels associated with compulsory service, the true volunteers who want a military career are denied the higher pay they could have received under a voluntary system.

What is the real cost of service to those who are coerced or compelled to serve? Many of these costs cannot be put into dollars-and-cents terms. However, there is one undeniable fact.

The youth who is presently drafted earns a basic pay of somewhere in the neighborhood of \$96 a month, including the value of his keep, his monthly income is in the neighborhood of \$160, far below the minimum wage. If we went to a voluntary force, my estimate suggests that a pay of \$325 a month would attract sufficient flows of volunteers.

The difference between that figure and \$160 a month—or something over \$1,900 a year—is a hidden tax borne by those men who are in our active duty forces, a tax burden some three times greater than the Federal income tax burden per average adult over 18 years of age, which is less than \$650 per year. So we are taxing those who

serve at a rate three times greater than the rate of taxation placed on all citizens, and this is a regressive redistribution of income.

Let me turn to the third question. What is the budgetary cost of meeting the manpower needs on a voluntary basis? If we move to a voluntary force, which will experience greater retention and consequently a lower personnel turnover than the present mixed force of conscripts and volunteers, we shall need fewer men to staff our forces.

DOD states that about 500,000 men per year are needed to sustain a force of 2.7 million men. With a lower personnel turnover of the voluntary force, I estimate that we will need only about 335,000 men per year in a steady state.

Under present circumstances, if by abolishing the draft we lose the draftees and the reluctant volunteers, there will be deficits between the supply of voluntary enlistments and the required accessions to maintain the force strength.

However, I estimate that we can attract enough men by increasing recruitment incentives, offering better housing, and most importantly, better pay. With the draft, we will need 27 percent of the male population to sustain a force of 2.7 million. Without a draft, and with lower personnel turnover, we will need only 19 percent of the population.

The necessary pay increase which I estimate is about 68 percent, which should give the private an entry level pay of about \$325 a month. The budgetary cost of this is about \$4 billion.

My cost estimates can be criticized on a number of grounds, most of which are included in the full text; but I believe if anything these estimates err toward the high side. I have not taken account of potential savings in turnover. The one cost which I have omitted is the higher retirement benefits accruing to men reaching their 20th year.

However, from the data I have examined, I see no reason why we cannot meet our manpower needs on a voluntary basis.

Fourth, and finally, what steps do we now take? I am first proposing a 2-year extension of the draft, in the light of the Vietnam situation and the high replacement demand that will be confronting us within the next 2 years.

My second recommendation is that first-term pay be advanced sharply. It is inexcusable, I believe, to tax those who serve at a rate three times greater than that impose on other citizens.

Third, I propose that under any system of induction we must be selective, given the growing manpower pools. Even with a draft, only 27 percent must serve in the active duty forces. Consequently, for every one who serves, there will be at least two qualified men who do not serve.

I am proposing, therefore, a lottery at age 21, rather than at age 19 as the Marshall committee stipulates, because according to my way of estimating, the Marshall Commission proposal to discharge the draft liability at age 19 would result in the loss of 112,000 voluntary enlistments.

The loss of each enlistment—who serves $3\frac{1}{2}$ to 4 years on the average—means that two men must be drafted. Consequently, moving the lottery to age 19 would create a greater need for the draft. More men would have to enter the service, run through the inefficient 2-year tour, and then be shoveled back into the civilian economy.

In suggesting a lottery at age 21, I estimate that without the pay increase, we would lose 40,000 enlistments. Given the proposed increase to eliminate the financial inequity of military service, I do not anticipate any loss of voluntary enlistments.

Lastly, I recommend that we thoroughly reexamine the role of the Reserves. During the entire Vietnam buildup, we have not activated the Reserves. If the Reserves are used to bolster the active duty strengths, the voluntary force can achieve the requisite flexibility that it needs. For these reasons I believe that the need for the draft has not been established, and I strongly endorse an intermediate program, advocating that we extend the draft for 2 years only, pending the course of events and with the ultimate objective of abolishing the draft.

Thank you, sir.

Chairman PROXMIRE. Thank you, Professor Oi.

Our next witness is Prof. Thomas Schelling, who is with the Department of Economics and head of the Institute of Politics at Harvard University.

Professor Schelling, we are glad to have you.

STATEMENT OF THOMAS C. SCHELLING, AFFILIATED WITH DEPARTMENT OF ECONOMICS AND KENNEDY INSTITUTE OF POLITICS, HARVARD UNIVERSITY

Mr. SCHELLING. Thank you, Mr. Chairman.

If I read very rapidly, I might get through my statement in 10 minutes. I think I would be wiser to put it in the record and talk more slowly for 10 minutes.

Chairman PROXMIRE. Without objection, your entire text will be printed in the record.

(The complete prepared statement of Dr. Schelling, above-referred to, follows:)

PREPARED STATEMENT OF THOMAS C. SCHELLING

Mr. Chairman, members of the committee, as you know, many teachers in American colleges and universities have been concerned about the draft. Naturally they are, not only because the draft is related to war in general, and to the war in Vietnam in particular, but also because the draft raises some fundamental questions about democratic government and the obligations of citizenship, and moreover because most of the students we teach, and even many of the teachers among us, are qualified by age, health, and education to perform military service.

A few months ago, several of my colleagues and I—holding among us quite a variety of views on this controversial subject—agreed that the subject deserved more than argument, more than expressions of opinion, and composed ourselves into a faculty study group under the auspices of the John F. Kennedy Institute of Politics. Because of the diversity of views among us, we needed some ground rules, and these were simply that we should explore the subject patiently, raising all of the issues we could before trying to settle them, searching for all the agreement we could find but sharpening up the remaining differences in order to know just where we differed, and not jumping hastily to conclusions. We kept to the rules and have not jumped hastily. But your invitation to testify, Mr. Chairman, prompts me to anticipate where I think we shall come out—or at least where I shall come out—and I welcome the opportunity to express a judgment on these issues. I can speak only for myself, but I am sure that my dozen colleagues in the fields of economics, political science, philosophy and law, will

at least let me acknowledge that my views have been formed in the course of many Saturdays of discussion with them.

To keep my original statement brief, I shall formulate merely the conclusions I have reached and let the Committee, in its questions, probe my reasons on the points that most interest it.

(1) Potentially there is bound to be some form of compulsory service. No matter how far we go in making voluntary enlistment attractive, the government cannot deny itself the means, in an emergency, of meeting its military manpower requirements. We are bound to have a system that combines voluntary enlistment with some form of potential compulsory service, even though there may be times, as there were in recent years, when nobody has to be drafted.

(2) That does not dispose of the question, how far should we go in providing incentives towards voluntary enlistment? The National Advisory Commission on Selective Service was concerned with the question, "Who serves when not all serve?" Establishing that some kind of draft would be necessary, the Commission went on to examine what kind of compulsory service system there should be. That is a crucial question; but for this Committee I think the other is equally important. How far can our country afford to go, and how far does it wish to go, in providing the incentives for voluntary enlistment and re-enlistment, in reducing the number who have to be drafted (and who probably serve for short periods), and in separating the financial burden from the obligation to serve?

(3) Too often the question of military compensation is raised in all-or-none form: what would it cost to achieve an all-volunteer force? Too often the questions of fairness and discrimination relate to who shall serve, with little attention to how we might reduce the burdens of service on those who serve. The draft is not merely a way of getting needed manpower; it is a way of getting manpower cheaply. Those of us who do not serve, because we are too old or because we are otherwise not selected, should be careful not to use the draft as a way of holding military wages down while civilian wages, inside government and out, are higher and continue to rise. The financial cost is there, whether we pay it through the budget or not; the more of that financial burden we taxpayers assume, the less we have to impose on those who do our fighting for us.

(4) The questions of how much to compensate in the interest of fairness, and how much to compensate in the interest of greater voluntary enlistments, come closely together of course. Raising pay for either purpose tends to meet the other purpose. Selective increases, like re-enlistment bonuses or pay increases for highly specialized personnel, can of course achieve selective results.

(5) As an economist, I might be expected to estimate for you what it would cost to meet a military-manpower goal of, say, 2.75 million through voluntary enlistments, with or without some additional number to be acquired through the draft. I cannot. All estimates are bound to be indirect, based on interpretations of dubious evidence in a changing world. The study presented by the defense department two years ago was based on data that lend themselves to a variety of interpretations. My interpretation of those same data leads me to a much lower estimate of the extra cost of achieving a large volunteer component in the armed forces; but I can have no great confidence that my interpretation is correct or that the original evidence is adequate to permit an estimate or that, if it was at the time, it will remain pertinent in the aftermath of Vietnamese hostilities.

(6) I am emphasizing military pay as much in the interest of sound business management as in order to reduce our future reliance on the draft. Drafting a man and training him in a specialty may be poor economy if the same specialty could be induced by higher pay to enlist. Inducing the re-enlistment of people who have been expensively trained, through the use of more discriminating pay scales, may be good economy. And draftees should never be permitted to become cheap substitutes for civilian employees where civilians could do nearly the same jobs. The long run advantages of using more economic incentives in a military career service ought to weigh heavily in the balance against habit, tradition, and the costs of transition. The aftermath of the war in Vietnam may provide an exceptional opportunity to incur the transitional costs of moving more in the direction of a career service based on economic incentives.

(7) Turning now to the form of compulsory service. I am strongly attracted to a lottery that is nearly universal within a fairly narrow age group. I can see almost no reason for exempting or deferring anybody at age 19 or 20 on grounds

that his career plans and educational intentions make him too valuable a civilian to go into the army or make it a national interest that his service be postponed a few years. In saying this, I have in mind a level of armed forces of about the present magnitude or as it may be in the aftermath of the Vietnamese war, that is, something closer to 3 million than to 6 million men. If the armed forces were very substantially larger for a prolonged period, I would have to reconsider the need for a national manpower program that paid explicit attention to the educational base of our population and to the need for particular skills and professions. For the present level of manpower, the economic benefits of discriminating among young men will be so modest, and so largely confined to the young men who benefit, as to be outweighed by the greater simplicity and fairness of a lottery. (The only profession for which I might have to make an exception would be the medical profession, and I am not qualified to make any specific proposal on that.)

(8) It should be possible to design a lottery that, without becoming too complicated, permits a young man some freedom of personal choice in the year that he chooses to be placed in the lottery. I would make any such freedom of choice equally available to all young men. And I am attracted to a national lottery without quotas or any sort, by state or otherwise.

(9) I endorse the idea of special training and rehabilitation programs for those who are rejected either as enlistees or as draftees, both for the sake of more nearly universal service and for the social and economic benefits; but I am not qualified to offer any specific advice. At the same time I am wholly unsympathetic to the notion of universal national service, civilian and military, both because compulsion in our society ought to be limited to real national emergencies and because I am dismayed at the thought of the federal government trying to find civilian service for millions of young people, most of whom have a pretty good idea of what to do with themselves in a free society.

(10) A final conclusion, perhaps not as urgent but of long-lasting significance, relates to veterans' benefits. This Committee might well undertake a study that the long-term cumulative effects of G.I. and other benefits, state as well as federal, involving job preference, tax concessions, educational and unemployment benefits, insurance and cash bonuses. It is natural that state governments as well as the federal government should want to reward those who have served in the armed forces, particularly those who have served in combat, perhaps especially those who served out of the country's need rather than the individual's choice, and served with inadequate compensation by ordinary civilian standards. There is some tendency for benefits to be haphazardly related to income and property taxes, to civil service preference, and to things of that sort. The consequences, in both equity and economic efficiency, are not guaranteed to be favorable. What we end up with is a system of partially deferred compensation, often on a contingent basis, that may make less sense altogether than each particular piece of legislation makes by itself. A study conducted by this Committee might provide some valuable long-run guidance for those who wish to legislate deferred compensation in the most effective way.

Thank you, Mr. Chairman.

Mr. SCHELLING. I both agree and disagree with Mr. Oi, and it may be helpful to you, in keeping continuity, if I attach some of my remarks to his.

First, I think it is a mistake to orient this discussion toward whether or not there ought to be some kind of a draft. There is bound to be a potential draft, that is to say, the Government will reserve to itself the right, through compulsion, to get military manpower in an emergency. And if the Government is wise, it will have at least a legislative basis laid for any such drafting in an emergency.

The real question is, how far do you want to rely on a draft, in contrast to other incentives, including the economic incentives?

Here, there are even more reasons than Mr. Oi gave us for taking seriously the advantages in paying for what we get. One that he did not mention, but that I hope Mr. Wool will talk about, is that merely in managing military manpower, it is good for people to

realize how costly young men are, to avoid letting drafted soldiers be cheap substitutes for civilian labor, to avoid letting drafted soldiers look like cheap substitutes for what machines can do, and to avoid letting a draft make all soldiers look equally cheap, so that in their allocation among tasks within the services, the better educated and better trained fail to get allocated to the jobs that they are best suited for.

In terms of cost accounting and business management and in providing incentives to get things done in the most economical way, it is worth while to have soldiers look as expensive as they really are.

Second, I very much appreciate Mr. Oi's emphasis on the question of fairness and equity in compensation. I have heard a lot of discussion among faculty and students about the unfairness of the draft, yet hardly anyone appears concerned about the unfairness of the way these young men are compensated once they have been drafted. On top of what is sometimes called the burden of service and the risks that go with it, we add a financial burden that is borne solely by the young men who get drafted, not by those who are not drafted.

Here I think we must avoid being too appalled by some of the cost estimates. If an argument for paying soldiers more is that they are being unfairly taxed as well as obliged to serve, we should not get in the position of saying we can't afford to eliminate the unfairness if it is expensive. If the tax is unfair, those of us who avoid taxing ourselves in order to get soldiers cheap, through the draft, shouldn't continue enjoying that unfairness merely on account of how much we benefit.

Turning to the draft itself, I am very much attracted to a nearly universal lottery. The two most difficult manpower problems, in converting to a nonselective form of draft, are how to make sure of an adequate supply of officers, how to make sure of an adequate supply of doctors. I am not going to try to solve those problems for you, but aside from getting officers and getting doctors, I am doubtful whether at age 19 or 20, or even 21 as Mr. Oi preferred, we have any good national or economic grounds for exempting or deferring anybody, in terms of what his educational plans and his career plans are.

At that age young men differ in terms of their talents, their interests, and so forth. But if we are talking about armed forces on the order of 3 million rather than 6 or 12 million, I doubt whether we have to worry about spoiling the economy, unbalancing the civilian manpower reserve, hurting the educational basis of our society, by having a draft that does not discriminate with respect to skills, professions, talents, or career intentions.

On the question of the age at which to put young men through the lottery, I think it possible to make this a little flexible, leaving it to the personal choice of the young man, but making it equally available to all young men. We could have a scheme that says everybody who has not been in the lottery yet goes into it at age 22, but if the 22-year-olds and those who volunteer for the lottery at earlier ages don't fill the year's quota, then the 21-year-olds go into the draft. If they don't fill it, the 20-year-olds. So there could be a sliding scale, giving every young man, within a narrow range of years, some choice about when to run the lottery risk, but making sure that if not enough

volunteered to get into the lottery early, they would be automatically picked up.

We should avoid State quotas under a lottery. A young man's risk of being chosen should not differ according to what State he lives in and how many people in that State are qualified or unqualified for service.

Thank you very much, Mr. Chairman.

Chairman PROXMIRE. Thank you, Mr. Schelling.

Our last witness this afternoon is Director Harold Wool, in charge of Procurement Policy and General Research on Manpower, of the Department of Defense.

STATEMENT OF HAROLD WOOL, DIRECTOR, PROCUREMENT POLICY AND GENERAL RESEARCH (MANPOWER), DEPARTMENT OF DEFENSE

Mr. WOOL. Mr. Chairman, at the outset, I would like to differentiate my posture here from that of my two colleagues. As a civil service employee of the Department of Defense, I do not have quite the same scope in recommending policies as they may have as private citizens. The policy position of the Department of Defense, as well as of the administration, is on record in the recent Presidential message on the draft and in recent legislation recommendations.

As you know, in 1964, at the direction of President Johnson, the Department of Defense initiated a study which had as one of its principal objectives an assessment of the feasibility of meeting military manpower needs in the coming decade on a completely voluntary basis. The results of this study were submitted to the House Armed Services Committee by Secretary Morris last year, together with a large volume of supporting information. Its main conclusions, with respect to the all-voluntary-force alternative, may be summarized as follows:

First, it found that in the absence of a draft, military strengths would decline to a level of about 2 million or slightly higher in contrast to force levels of about 2.7 million required immediately prior to Vietnam, and to a current military strength of about 3.4 million.

Secondly, that the net budgetary cost of *attempting* to maintain military strengths at the pre-Vietnam level of 2.7 million on a completely voluntary basis would be very high, probably ranging from \$4 billion to \$17 billion, with \$8 billion as the most probable estimate under a 4-percent unemployment rate level.

Third, that even these outlays would not assure an adequate supply of better educated manpower for the many professional and technical specialties needed by the Armed Forces, nor would it provide for adequate manning of our Reserve Forces.

Fourth, and perhaps most important, that there would be very limited flexibility under an all-voluntary system to increase military strengths even moderately within a short time period should the need arise.

It may be helpful to discuss briefly some of the basic research findings and assumptions which resulted in these conclusions. In particular, I would like to address myself to the question of the inherent reliability of the estimates and the reasons for expressing them in a rather broad range of possible costs.

The policy officials who initiated the study addressed some fairly simple questions, they thought, to the group of economists assigned to this particular task. First, would it be feasible to maintain military forces of the size required in recent years on a completely voluntary basis, in the coming decade?

Second, if so, how much will it cost.

It would have been tempting to submit simple, unqualified responses to these questions. However, in spite of intensive research efforts, in which my copanelist, Dr. Oi, participated in the first year, this did not prove possible.

To do so, in my judgment, would have entailed a serious risk of grossly oversimplifying the many uncertainties and variable factors inherent in any projections of this type. The risks involved were the greater for the very reason that the problem we were dealing with was no theoretical exercise. It is directly related to our national security and to the ability of our Armed Forces to meet their commitments in future years.

It also clearly affects the lives of millions of young men in our country, and has significant implications for our civilian economy as well.

These uncertainties can be illustrated by examining two of the key steps in our estimating procedure, and there were many, Mr. Chairman.

These were: first, the projections of military recruitment capabilities in the absence of a draft.

Secondly, the estimates of the responsiveness of recruitment to increases in military compensation.

In the first area, I would like to emphasize particularly that our analysis of past recruitment trends in the Army, which always had the capability of accepting enlistments, showed a significant relationship between enlistment rates and the unemployment situation in normal years. We found that, for example, a given percentage change in unemployment rates would result in a closely corresponding percentage change in the Army enlistment rate.

Our initial estimates, which were developed in 1964, were based upon experience in a preceding period of years between 1956 and 1964, when the average unemployment rate was about 5½ percent. As we moved into the 1965 period, our experience, as you well know, was that unemployment declined significantly to a level which is now below 4 percent.

We subsequently, therefore, found it not only desirable but absolutely essential to present our estimates in some range of possible variation in unemployment rates. In addition to the 5½ percent assumption, we showed what recruitment would be under the lower 4 percent level of unemployment. These ranges were not designed to reflect either a desirable or possible variation in unemployment. They simply were designed to illustrate the implications for military recruitment of even limited variations in the level of civilian job opportunities.

The second and more difficult forecasting problem was to estimate the responsiveness of military recruitment under a voluntary system to increases in military pay.

I should note in this connection that increases in pay were only one of many management incentives explored in this study as a means of increasing volunteering, or eliminating reliance upon the draft. However, increases in pay are the conventional methods followed in

the civilian economy, in attempting to attract additional labor supply, and particular interest has been expressed in the feasibility and cost of meeting our requirements voluntarily in this way.

In attempting to derive a supply curve for military recruits, our economists were in many ways moving into unexplored territory. It seemed almost self-evident that an increase in pay would produce some increase in enlistments: The precise relationship was much more difficult to forecast, particularly under conditions of a dynamic labor market.

The available research evidence drawn largely from studies by psychologists and sociologists indicates that many factors, in addition to pay, have influenced many young men in the choice of a job or career. An incomplete list of such factors, as listed by one leading psychologist, include: the person and his biological inheritance, parents, peers, relatives, teachers, social class, educational experience, geography, minority group status and location of opportunity.

Our own surveys of civilian youths have confirmed the fact that pay alone is a less potent factor in career choice than might be expected. We found that occupational values varied greatly with educational level.

Generally, the high school dropout or graduate who did not go on to college placed greatest emphasis on the training and job security aspects of jobs, whereas the college man placed much greater emphasis upon his inherent interest in the type of work and in various job status factors.

Pay, as such, was listed as the most important factor by less than 9 percent of those surveyed—pay, directly, as distinct from many of the indirect relationships which do exist.

With regard to military service, we found wide variations in basic likes or dislike for military service, even among men with similar educational backgrounds.

Nevertheless, it was evident that, at the margin, substantial increases in military compensation would produce some increase in volunteering.

In order to measure this relationship, we compared Army enlistment rates in 1963 in each of the nine census geographic regions with two key economic variables: the median civilian income of young men, aged 16 to 21, and their unemployment rates in the regions.

We found a statistically significant correlation among these variables. As shown in the accompanying chart, the percent of qualified youth who enlisted in the Army—excluding those who reported they were influenced to enlist by the draft—was highest in the southern region where civilian income was lowest and unemployment rates relatively high. It was lowest in the Great Plains States where civilian earnings were slightly above the national average.

When geographic regions with similar unemployment rates were grouped together and compared, in all cases those with the lower civilian income had the higher enlistment rates.

This basic relationship, and a similar study for officers, based on ROTC voluntary enrollments, provided the limited empirical basis for the estimates of response of enlistments to pay used in our study.

I assure you that Dr. Oi and many of his colleagues strained very hard to find other meaningful data. This was the most meaningful relationship in this context which could be found and which did

establish a certain statistical relationship between earnings and the propensity to volunteer.

However, I think it is very important to emphasize the limitations of these estimates, which were the best we could derive.

First, the relationship rests upon the inference that the differences in regional enlistment rates are in fact entirely due to differences in economic factors, such as income and unemployment, rather than to other influences such as regional differences in ethnic or racial background among these regions. We do not know, in other words, whether the young man from the Great Plains region would enlist at the same rate as the southern youth if his earnings and job opportunities were the same.

Secondly, the rates shown apply to one point in time. They refer to conditions as they existed geographically in the year 1963. In a dynamic society, with changing opportunities and values, we do not know whether these relationships would equally apply in future years.

Finally, it is particularly doubtful whether any assumed change in relative military pay, based on a cross-sectional relationship, would produce a short-term increase in enlistments as great as that indicated by this supply relationship. We do know that attitudes towards occupational careers, including military service, are often formed early in adolescence, and that—as noted above—pay has not played a major role in shaping these attitudes.

For these reasons, it appeared essential that the resulting estimates be expressed in terms of a probability range, based upon the standard error of the regression coefficient derived from this analysis.

Although we cannot, therefore, place any great reliance upon any single cost estimate for an all-volunteer force, there are other relevant facts which—in my judgment—do clearly militate against this alternative as a viable method of maintaining our military force, at levels similar to those experienced in the recent past.

First, the proportion of volunteers who were motivated to enter service because of the draft was found in our surveys to be highest among men with the higher levels of educational achievement. Among enlistees with some college education, 58 percent stated that they would not have volunteered in the absence of a draft, as compared to 23 percent of high school dropouts. The greatest loss of volunteers, in the absence of a draft, would therefore occur among men who are best qualified for training in our many technical specialties.

Second, our Reserve enlistment programs would be particularly hard hit since 70 percent of those who were in these programs in 1964 stated that they had enlisted simply in preference to being drafted. In the event of any requirement for rapid augmentation of trained manpower, our Reserves would not be in very great shape to deliver.

Finally, military pay policy—or any similar combination of financial incentives—is a relatively inflexible recruitment method. Even if the Department of Defense were granted wide authority to adjust pay scales to changing market conditions and recruitment needs, it would be very difficult, if not impossible, to move pay rates up and down in response to these market factors. In effect, there would be a built-in tendency for a continued long-term escalation in relative military pay levels and related costs under such a policy.

The limitations of military pay policy as a recruitment method are perhaps best illustrated by recent experience in Australia. Australia

has had a boom economy with the lowest unemployment rate of any of the countries we surveyed in 1964—0.8 percent. It discontinued its draft in 1960. Entry pay for privates was increased to \$163.50 per month by 1964, in American dollars, about twice the basic pay for privates at that time in the United States.

In spite of this high entry pay, Australia found it difficult to maintain a regular force of about 52,000, a strength corresponding to 1.9 percent of its 15-to-49 male population. This was less than one-third the relative size of the U.S. military force, and would correspond to a U.S. strength of only 860,000 men, based on our population in the same age groups.

Particular difficulty was experienced in recruitment of officers, technicians, and reservists. When a decision was made to increase Australian military strength by 14,000, or 25 percent, in 1964, it was therefore necessary to reinstitute a draft system, incidentally, with a lottery.

In conclusion, I would like to emphasize that the estimates discussed above relate to the feasibility of maintaining an all-volunteer force in the future at a level of about 2.7 million, corresponding to that period immediately before our military force buildup for Southeast Asia.

I have personally seen no responsible study which even suggests the feasibility of maintaining the current military force of about 3.4 million without reliance upon the draft, and would consider this to be grossly unfeasible.

For these reasons, much of the emphasis in recent studies has been directed to the immediate issues of assuring increased equity in selection for service, and of reducing the hardships and inconvenience of involuntary military service for those who must serve.

Further, the continuing objective of the Department of Defense has been, and will be, to minimize reliance upon involuntary induction through a wide range of career incentives and management efforts as described in recent official statements.

Mr. Chairman, this completes my prepared statement. I will be pleased to answer your questions.

(The table referred to above follows:)

Army voluntary enlistment rates and civilian earnings and employment, males ages 16 to 21, by region, 1963

Regions	Army enlistments without a draft ¹		Median civilian income, males 16 to 21 ²		Unemployment, males 16 to 21 ²	
	Rate (percent)	Index	Amount	Index	Rate (percent)	Index
New England.....	3.36	96.3	\$3,567	98.5	11.3	99.1
Middle Atlantic.....	2.97	85.1	3,748	103.5	14.2	124.6
South Atlantic.....	4.65	133.2	2,849	78.7	9.4	82.5
South.....	4.93	141.3	2,441	67.4	13.9	121.9
Western South.....	4.25	121.8	3,143	86.9	9.2	80.7
Great Lakes.....	3.10	88.8	4,184	115.5	11.1	97.4
Great Plains.....	2.05	58.7	3,725	102.9	6.0	52.6
Mountain.....	3.25	93.1	3,640	100.5	9.8	86.0
Pacific.....	3.35	96.0	4,257	117.5	16.2	142.1
U.S. average.....	3.49	100.0	3,621	100.0	11.4	100.0

¹ Army enlistments in mental groups I-III, excluding those motivated by the draft, per 100 civilian out-of-school males, ages 16 to 21, who meet minimum enlistment standards.

² Derived from Department of Defense survey of civilian men, 16 to 34 years old, October 1964.

Chairman PROXMIRE. Thank all of you, gentlemen, for a very, very interesting presentation. It is good to have this difference in viewpoint expressed by so many competent people.

These hearings are concerned with the impact, the economic impact, of Vietnam, past, present, and future, and I think you have discussed a very fascinating and interesting aspect and one that I want to get into with questions, as I am sure the others do.

I wonder if you have any views from the standpoint of manpower on two different problems; one, whether escalation of the kind that has been suggested by Senator Stennis before this committee yesterday, escalation involving, say, 60,000 additional troops, 50,000 above that planned on the one hand; or deescalation, with negotiations and substantial demobilization of, say, 500,000 troops over a period of a little more than a year—what kind of economic impact do these two possibilities suggest?

Will we have such a shortage of manpower, in the event of escalation, that we will have problems, or if we have demobilization of the kind I have described, will this involve serious economic problems with which we should be familiar?

I am not at all critical of what you have presented. That is fine, and I am sure we can ask a lot of questions about it, but I am wondering if any of you gentlemen would like to discuss this particular question.

Mr. Schelling?

Mr. SCHELLING. Mr. Chairman, we are still not drafting such a high proportion of draft-eligible and qualified young men that we need to worry about a national manpower shortage in connection with the kind of expansion you are talking about. There is a manpower emergency ahead for any expansion on the scale you mentioned.

Chairman PROXMIRE. Suppose we should escalate to the extent of the kind of expansion you are talking about. There is a manpower would mean 200,000 more people in the Armed Forces, on the rough assumption that you have one support man for every man you have in Vietnam?

Mr. SCHELLING. There is a problem of supplying them in the short run, if they have to be inducted in an orderly way and put through training, and made available in Vietnam, but in terms of the number of draft-eligible young men who presently are deferred for a variety of reasons, 200,000 I imagine would not cause a severe depression, even on the college campus.

With respect to deescalation—

Chairman PROXMIRE. I am sure it wouldn't cause a severe depression on the college campuses, if we continue our deferment policy.

Mr. SCHELLING. I say, reducing our deferment in order to pick up people who are presently deferred as students would not even take a great fraction of the presently deferred students. There is really no shortage there. The only question is whether there are economic losses through diverting from their education that number of young men for some period of years. I think the economic losses are slight.

Chairman PROXMIRE. How about the deescalation problem?

Mr. SCHELLING. The deescalation problem? It looks to me as though this may be a splendid opportunity, first, to take advantage of what

would otherwise be a rapidly declining defense budget, to make up the deficiency between present soldiers' pay and something like a national minimum wage.

Secondly, if unemployment does rise, Mr. Wool's figures suggest that enlistments are somewhat sensitive to unemployment.

Third, while I can't be sure, I rather imagine that the war in Vietnam reduces the incentive to enlist rather than increases the incentive to enlist, so that there may well be an opportunity to come close to getting away from reliance on a draft.

Chairman PROXMIRE. Let me get back to the emphasis of my question, which is, What economic impact, if any, do you anticipate by this demobilization?

One of the fascinating figures that I saw—and I haven't seen it confirmed—was reported in the Wall Street Journal as coming from the Veterans' Administration, that whereas 29 percent of those of us who were in World War II took advantage of the GI bill of rights to go to college, after the Korean war, 50 percent did, and in this war, the Vietnam veterans are going back at the rate of 84 percent.

I don't know if this is true, but it would suggest that at least a much higher proportion of those who leave the Armed Forces in Vietnam are going to college and, therefore, we don't have the economic problem of unemployment in the sense that we might have, but we do have a serious economic problem of educational adjustment to higher enrollment in our educational institutions.

Mr. SCHELLING. Yes, but this is the same problem we knew we would have. It has only been partly deferred for a couple of years. Some of the World War II baby boom hasn't yet got to us. This is a problem over the next decade, and not seriously augmented by the number of young men who will come out of the Armed Forces.

Chairman PROXMIRE. Did either one of you other two gentlemen want to comment on this?

Mr. WOOL. I would like to, if I may.

Chairman PROXMIRE. Yes, Mr. Wool.

Mr. WOOL. I was with the Department of Labor shortly after the end of World War II when, as you will recall, there was a tremendous concern about the problems of the postwar readjustment, and we followed the trends very closely. As you well know, in spite of the massive demobilization under those conditions, it did not occur.

Now, you have already mentioned, Senator, one of the reasons that is, that a considerable percentage of the returning veterans do not in fact immediately reenter the labor force; in fact, more veterans were collecting readjustment allowances than showed up in our census surveys as actively looking for work in this transitional period; but the point here is that with the overall economic situation, with the huge pentup demand for civilian production, then—

Chairman PROXMIRE. We don't have pentup demands now, do we?

Mr. WOOL. We do not, but at the same time, the demobilization was far greater than anything we are talking about now. It would seem to me that, given the much lower level of volume of separations in a de-escalation than anything we had in the past, that the overall economic situation would be far more important; in other words, other demands generated in the economy in terms of the absorption of, let's say, several hundred thousand more men separating from service—

Chairman PROXMIRE. We have had testimony from other economists that there is a serious shortage in skills in many areas of our country right now, today.

Would you anticipate that a substantial escalation might aggravate that shortage?

Mr. WOOL. Well, I think what is particularly relevant is the fact that the draft age recently has been a median age of just about 20. This means that most of the boys who are not going to college have been coming into service in their 19th year of age. Those above their 20th birthday who have been drafted consist largely, I believe, of men who enter the draft-liable status after having been deferred for college—not necessarily all college graduates.

This means, too, that the drain upon the civilian economy has been least, because these are youngsters who, if they were employed before entering service, did not develop any appreciable degree of skill.

Chairman PROXMIRE. Maybe they were apprentices for a few months, and these are the kinds of people we need.

Mr. WOOL. They could have been in some cases apprentices, but if they were in critical occupations they would have been deferred under the draft regulations. Now, in fact, the recommendations made by the Department of Defense and by the administration have been for stabilizing the draft age at a younger age, such as 19, for those who don't get college deferments, and that, of course, is still an open question.

And we believe that, among other things, the economic impacts of inducting men will be minimized by having them enter service at a point shortly after the time that they complete their schooling or at age 19, as distinct from alternative procedures, such as the one in effect in the past 10 years, of taking the oldest man first and having a median age as high, nearly, as age 24.

We think that given these facts as to the relative young age of the potential draftee, and his relatively limited skill, we do not believe that the drain in terms of skilled manpower, as against unskilled or semiskilled, was particularly noticeable in the past year.

Chairman PROXMIRE. I would like to ask Mr. Oi this question: Mr. Oi, you have given a fascinating presentation, and I think a very persuasive presentation, as to the prospects of at least reducing the impact of the draft, hopefully, sometime.

Do you see that the draft has any value in providing a much larger pool of trained, experienced manpower than we would have if you reduced the turnover as you describe it, and having people serve a longer time, but far fewer who would have this experience?

Mr. Oi. I see no danger in that whatsoever, because our policy in the past, which will probably persist into the future, is that once having served, a man will not be recalled to active duty. Except for the officer corps, this has pretty well been held to.

Chairman PROXMIRE. This certainly wasn't the understanding after World War II. As I recall, you were in the Reserves for 6 or 8 years, whether you liked it or not.

Mr. Oi. Yes.

Chairman PROXMIRE. If you were an officer, you weren't. You had the choice of getting out.

Mr. OI. Yes; but of those officers who went into the Reserves some were recalled in 1947 when there was a draft call, but very few of the enlisted men were.

Furthermore, for the kinds of skills needed during a rapid mobilization men can be trained quite quickly, and the potential saving of time through having this "trained personnel" is in the order of magnitude of 4 to 8 weeks, no more than that. Consequently, I see no danger in that.

May I make one comment on deescalation before you continue?

Chairman PROXMIRE. Yes, indeed.

Mr. OI. One thing which has been quite noticeable in the President's Economic Report—while the unemployment rate has dropped drastically in 1966, to 3.3 percent, the unemployment rate of youths 14 to 19 has fallen only to 11 percent. There is still a large pool of unemployed youths in this age range.

This is the age in which they are seeking jobs, and finding themselves. The shortage of skills which results from added draft calls does not benefit these people, and I am convinced that we can attract large numbers of them, if we would only make military service a respectable career.

May I make just one last point. Mr. Wool made reference to the Australian situation. Examine Canada, with unemployment experience quite similar to ours. They have managed to sustain a force which, if converted to U.S. standards, would be in the neighborhood of 1.5 million men, and at the same time at a pay scale somewhat higher than ours but below that of Australia.

So, if one plays this game, my feeling is that the Canadian economy is far more like ours than the Australian.

Chairman PROXMIRE. My time is up.

Congressman CURTIS?

Representative CURTIS. I have to leave soon and then I am going to come back, because I have a rollcall which Congressman Rumsfeld has already gone to answer.

I wanted to take this opportunity to agree with what the chairman has said about the value of this panel discussion, and make a personal comment that having followed Dr. OI's work over a period of some time, it is a pleasure for me to see him and meet him personally, and that applies of course to the other two gentlemen.

Then, of course, the comment that I have some preconceived notions on this subject myself, and then say that I am so pleased that a dialog is beginning in this area, and am particularly pleased to know that the Kennedy research group—what is the official title?

Mr. SCHELLING. Kennedy Institute of Politics.

Representative CURTIS. That the Kennedy Institute of Politics is going into this area, in this kind of depth. My concern has come, really, from the studies of manpower utilization in the civilian sector.

My questioning is going to be somewhat along those lines.

I have seen some studies in the Department of Labor which suggest that today there is upward of 80 percent comparability of skills needed by the military, with the skills that exist in the civilian society.

To put this in context, during the Civil War, it was below 50 percent. In World War I it was up around 60 percent. As technological

advancement continues, both in the civilian society and in the military, these comparability figures will probably continue upward.

Another way of expressing it, for the man who actually is skilled in the use of military weapons and has to use them, a skill peculiar to the military becomes less and less a portion of the manpower utilization.

I argue that skills peculiar to the military accounts for only about 10 percent today. And when we talk about the 2.7 or the 3.4 manpower in uniform, we ought to relate this to skills that are not military at all, or are not military in the sense that makes it peculiar to the military, but actually are civilian-type skills.

We have had a buildup, I understand, of 750,000 additional men in uniform. Am I correct in that figure, Mr. Wool?

Mr. WOOL. Approximately.

Representative CURTIS. I am curious to know what the same buildup is in civil service in the Military Establishment. Do you know what that would be?

Mr. WOOL. Not offhand.

Representative CURTIS. You see, that is what we need to know. Incidentally, I have asked administrative witnesses this and they don't know either—demonstrating the key thing, they aren't even looking.

I asked how many people are in the munitions industry, using the definition of "munitions industry" to mean, for example, it could be the textile industry that is supplying needs for the military. So I mean those industries that are tied in. I suspect the increase is around 1.5 million. I don't know that. But as I asked for these figures of the Secretary of Labor, I get nowhere.

The other point that I have tried to get to is this. We have a manpower utilization commission. I don't know what it is now called. It was the Manpower Board in World War II.

The object of that is to coordinate those skills within the civilian sector and the military. I asked Secretary Wirtz earlier this year what changes this commission might have made in occupational deferments, as a result of the Vietnam buildup, and found out that they hadn't made any changes of any sort since 1963.

I do have to leave, but I will come back. Thank you for letting me interpose briefly, Mr. Chairman.

Chairman PROXMIRE. As I understand it, Mr. Wool, one difficulty is that you were asked to talk on military manpower, and it would be a pretty broad sense to include people in the munitions industry, although I think Congressman Curtis is right in suggesting that we consider the impact of the Vietnam war on manpower, all manpower.

Pursuing a question I was asking Professor Oi, you said you did not think there was as much of a need for a trained pool of veterans, and I think you make a pretty strong case. This next question isn't meant to be loaded in any way, but at the same time, I guess it sort of depends on our value judgment pretty completely.

Isn't there a sociological impact and a political impact from a draft system of no mean proportion in having millions and millions of veterans in our Nation, people who had served in the Armed Forces on the one hand, on the other hand with a volunteer, professional army

of having a much smaller proportion of people who have had military service of one kind or another in the general population?

Wouldn't you agree that this does have an impact on one's views on military policy, foreign policy generally, the attitude towards the country, and so forth, good or bad; but it does have a significant impact. You can see it for one thing in our veterans' organizations, the American Legion view, the VFW view, and so forth. I was asking you, Professor Oi, if you would like to comment on that, because you take the position in favor of a professional force, and of getting away from—

Mr. OI. There are two contexts in which we ought to discuss this. One is that if we continue the draft, we are necessarily going to be pushing more men through for shorter tours of duty. We are going to have more veterans; that fact is undeniable.

But in spite of this, we are still going to have a majority of the youths reaching the age of 17 and 18 today not serving in the military in the years ahead, providing that the Vietnam situation stabilizes or deescalates.

Now, if Vietnam continues its upward trend of increasing the active duty strength by 300,000 to 400,000 a year, then we are going to get back toward the Korean war situation. Now, whether this is a good or a bad thing, I have difficulty evaluating.

My own feeling is that I would prefer a system wherein people who have been in service do not view it as some period in which they have given years of their lives to their country, but rather should view it more as a defeated Congressman would—that these were enjoyable years that he chose to invest in the service of his country.

Chairman PROXMIRE. You have raised quite a haunting specter. It will take me a while to adjust to that one. While I am adjusting—and I must adjust because I have more questions—I will yield to you, Senator Percy, and then Congressman Rumsfeld.

Senator PERCY. Thank you, Mr. Chairman.

Gentlemen, I have been on a number of college campuses in recent weeks, and talked with college students about the desirability of developing more flexibility and voluntary aspects into the draft. And, of course—meet with universal acceptance on that concept.

I have asked them specifically, whether, if a lottery was held at age 19, how they would react to a choice being given them as to what age they would like to serve, and if they had that choice, when would they like to serve.

I found universal acceptance of the idea of the choice, and a good scattering of those who would want to serve early and get it over with, and then come back; those who would like to get their education first, or part of it, and then come back; those who would want to finish their education and then go.

Could you each comment on this particular aspect of the proposal that I think was in the Commission's report? It was not embodied, I do not believe, in the President's report itself.

Mr. WOOL. On the question of choice of service, let me summarize, if I may, the feeling of the majority of the Marshall Commission on this issue.

The majority on that Commission felt that offering some young men at a given age, such as 19, a choice as to when to serve, particularly when we were engaged in active hostilities, and not making that same choice available to other young men, did give them a privileged status which could only be justified if there were a clear-cut national need for continuing college student deferments.

The majority of that Commission did not feel that there was such a clear-cut national or educational need.

The position of the minority and of General Clark's panel might be paraphrased as follows: that at least under normal conditions, if the young man going to college has the same exposure, the same probability of serving when he completes college, as the young man who does not go to college, equity is achieved.

It has some advantages in terms of continuity of education, perhaps debatable, but at least the individual would be making that judgment.

So that this was the feeling of those who felt that undergraduate college student deferments should be continued, so long as the pyramiding of deferments, the opportunities which had been available to move easily from undergraduate to graduate to occupational deferments or to dependency deferments is eliminated.

I think there was a unanimous conviction that that should be done away with on the part of all those who studied it, and so the President approved it.

The only issue is this rather knotty one, particularly during a Vietnam conflict period, the moral issue as to choice of time of service in relation to age. I am just summarizing the points of view as I have seen them.

Chairman PROXMIRE. Mr. Schelling.

Mr. SCHELLING. On flexibility, we have to distinguish between flexibility under the kind of lottery system that has been recommended and flexibility under something like the present deferment system.

As I mentioned earlier, I am attracted to a lottery that would provide some flexibility. I think it better if the flexibility has to do with the year in which one submits to the lottery rather than, having been chosen at the earliest age, choosing then the year to serve.

My strongest caution would be, keep the flexibility to within a narrow range of years. It is not healthful to have young men speculating on just when a war is going to start or stop, or when the law may change again, and make their decisions on these grounds.

If a young man decides it in terms of whether his mother needs him at home, whether he would like to get 2 years of college before taking off for the Army, I would say this is his business.

You would probably discover that people are more able to hope for deescalation than to anticipate emergencies that may arise; and a lot of the flexibility would simply be taken advantage of on what you might call speculative military grounds, rather than personal grounds. If those are going to be the grounds on which they do it, then I would be inclined to take them in at the earliest possible age.

I doubt whether the age range should be wide enough to allow a boy the choice between completely finishing college or going in before college. If you allow a 4-year span, these questions of what is going

to happen in the world and when is the safe time to be in the Army, will loom too heavily for them.

Senator PERCY. Mr. Oi?

Mr. OI. I am in favor of holding to rigid rules on this matter. I have been favoring a lottery with 2-year liability between the ages of 19 to 21, the oldest being drafted first, 21 down. All students who want deferments can have them, but their age is held say, at a draft age of 20. No matter what their chronological age is upon completion of the bona fide educational program that they signed up for, they enter the pool at a draft age of 20 and take their chances in the pool with no opportunity for occupational or dependency deferments, other than hardship.

This is a stand I would propose.

Senator PERCY. The next question I would like to address myself to is the question of the quality of our military forces. Do you think that the volunteer Army would mean a lower quality Army, and do you think that a lottery pool Army would mean a lower quality Army? Mr. Wool?

Mr. WOOL. I believe there would be a strong likelihood that an all-volunteer Army, with the pressures to try to somehow accomplish this in terms of some numerical objectives, would have a lower educational level distribution and a lower mental aptitude level distribution if you measure quality in these ways, as we would, than would an Army which is staffed in part at least on a more representative basis of the population of military age.

The survey data I cited in my statement showed clearly, and for obvious reasons, that the young men who have the greatest opportunity in civilian life, the most training, the most education, are the least likely to volunteer for service as enlisted men.

To some extent the same principle applies to officers. The most acute problem of trying to maintain an army voluntarily would be in the case of our physicians, where at least 70 to 80 percent of those who enter service do so because of the draft, and this is the precise analogy in the officer corps to the problem, we would have at the enlisted level.

Senator PERCY. Mr. Schelling?

Mr. SCHELLING. I do not altogether disagree with Mr. Wool, but part of the answer to your question is that you will get the quality you pay for. We do not worry about whether we can get the quality of motor-pool managers in a civilian agency. If we need good ones, we pay for them.

A lot of the skills that the military services need, if they try to acquire them the way they would try to acquire civilian skills, will prove to be available.

If, in addition to the skills that get induced into the young men after they are in the Army, we can have a system that keeps people for longer periods of time so that we do not put them through a 2-year period in which in the first 6 months they are in training and in the last 3 months they are lameducks, we may get more quality through a greater career service than we get with a draft system.

I suspect that under the lottery, if by quality you mean general education, mental ability, probably yes, because at the present time

deferments tend to be highly correlated with some of the things that at least in the civilian society are called quality.

I would emphasize that through being better able to keep the people you have trained, keeping them around for longer than the 2-year stint, and through being willing to pay for specific kinds of quality, it may be that the military services can do just as well with military manpower as with civilian manpower. The real question is whether we taxpayers are willing to let them pay for it.

Now, there is a sense in which we have to recognize that they will lose quality. I wish they would lose it. There are a lot of splendid yeomen stenographers who are being used to do what lady GS-7's could do, but we do not permit the Navy to hire as good quality stenographers as they can get if they use men under military discipline. There are a lot of high quality jobs in which drafted men and enlistees are being used to do what, in the old days, used to be called women's work.

Senator PERCY. Mr. Oi, do you want to give a short answer to this question?

Mr. Oi. All I want to say is I agree with Mr. Schelling, and I believe that Secretary Morris, in his statement before the Kennedy Senate Labor Committee, stated unequivocally that the Army can take into a specialized training and enlistment program up to 100,000 men with mental test scores between the 15th and 30th percentile, and that these have been shown to fill many of the requirements equally well. I think that for such tasks our qualification standards are too high, and we are not utilizing civilians sufficiently.

Senator PERCY. One last question, please.

Would you favor a pay bonus to men who enlist or to those who are drafted in order to try to encourage more enlistments? Do you think it would be effective?

Mr. Oi. Yes, if tied to a longer period of service. I would like to base the size of bonus on the length of commitment. But I would first like to eliminate the financial inequity of the draft. I think to tie a bonus on now would be adding insult to injury.

Senator PERCY. Mr. Wool, I presume you dissent?

Mr. WOOL. Well, no, I would rather not comment on pay policy matters, because an intensive pay study is underway in the Department of Defense.

Senator PERCY. But it has been your feeling that pay is not a major motivating factor in military service; is that right?

Mr. WOOL. I would say that is always a factor in any pursuit. I think that it is much too easy to exaggerate its influence in terms of getting people to choose a career as different as military service is from most civilian pursuits.

Senator PERCY. Mr. Schelling?

Mr. SCHELLING. I substantially agree with Mr. Oi on this.

Senator PERCY. Thank you, sir.

Chairman PROXMIRE. Congressman Rumsfeld?

Representative RUMSFELD. Mr. Chairman, first I want to join you in welcoming all three.

Chairman PROXMIRE. I want to interrupt at this point to say that this very interesting panel this afternoon is very largely a result of

Congressman Rumsfeld's initiative and imagination. He was the one who suggested this to the committee, and I think it has already made a very substantial contribution to these hearings and he deserves full credit.

Representative RUMSFELD. I do want to express my thanks to all three of you for coming and for the very interesting testimony that has been given.

I would be interested in knowing what you feel the impact of the existing selective service law is having with respect to the colleges and universities. It has been alleged by some that the draft's presence, and the threat of the draft, has been a determining factor in a great many young men's decision to attend college, and that, as a result, the academic community is being burdened to some extent by the number of individuals who, faced with options of either the draft or college, have opted for college, who might have, absent the alternative of the draft, worked for a period or done something different and gone to college later.

Do you, from your experience in universities, feel that this is a problem at all? Can you substantiate it or rebut this allegation?

Mr. SCHELLING. My experience is with Harvard University, which probably tends to have a student body that, when it comes, expects to stay the full course, and is financed for the full course, so the impact may be less at Harvard.

My main impression is that it depends very much where the young man's draft board is. Draft boards differ in the way they will deal with a temporary dropout, a change of college, working during the day and taking a half schedule at night. Even at Harvard, since draft boards depend on where you are from, rather than where your school is located, one finds variation in the need for a student to pay attention to this.

My second observation is that graduate schools do appear to be affected. Last September, in many departments at Harvard, there was an unprecedented acceptance rate from those to whom we offered admission to graduate school. And while it is hard to draw general conclusions from one instance, there is a strong suspicion that some increment here was due to a belief that this is not the year to leave college.

My third observation is that for most students it does not make much difference. It is only the student who is facing one of these decisions. Do I really want to go to graduate school? Do I really want to drop out for a year and work? Do I really want to reduce my schedule to half time? These are the students whose decisions seem to be affected by the nature of the draft.

Representative RUMSFELD. Dr. Oi?

Mr. Oi. The only comment I would like to make is that the graduate student enrollment in my department climbed in the last 2 years from 80 to about 135 students, in the light of about a 20-percent increase in total enrollment, and I suspect that that difference is largely the draft avoiders.

Representative RUMSFELD. Mr. Wool, do you have any comment?

Mr. Wool. We probed into that to the extent that we could. The only evidence that we could obtain was from some earlier surveys of the National Opinion Research Center made in a very different con-

text where they did happen to ask college graduates the extent to which their decision to go to graduate school had been influenced by their draft status, and this survey applied to a period in the early 1960's.

My recollection is that at that time their analysis suggested that about 10 percent of the graduate students in that survey indicated that their decision then was influenced by their draft liability. This is the only tangible bit of data. The extent to which it reflects a true picture, I cannot judge.

Representative RUMSFELD. You, Mr. Wool, in your testimony, used the phrase "at these levels," implying that you used a fixed military manpower level and your comments evolved around that fixed level. Is it correct that you used 2.7 million?

Mr. WOOL. It is more precisely something like 2,650,000, which was approximately the strength we had had immediately prior to the current force buildup.

Representative RUMSFELD. I am interested in your statement where you say:

Further, the continuing objective of the Department of Defense has been and will be to minimize reliance upon involuntary induction through a wide range of career incentives, management efforts, as described in recent official statements.

Does that mean that the Department of Defense favors a voluntary system?

Mr. WOOL. I can say categorically—and this is on the record—that the Department of Defense has had as its objective to obtain as many or all of its personnel through voluntary means.

The various statements made in the context of reviews of the draft legislation have repeated that.

Representative RUMSFELD. I find that statement that the objective of the Department of Defense has been and will be to minimize reliance upon involuntary induction, because of the incredible lack of success that you have had. It is beyond me how, when the pay offered is substantially less than anything approximating a competitive position, with respect to the private sector, you can say that your policy has been to minimize the involuntary inductions.

Mr. WOOL. I think from the record we cannot really talk about an incredible lack of success. Our own projections as to what could be maintained under certain assumptions in the 1970's suggest a capability of maintaining 2 million men under uniform on a voluntary basis, which I believe is far greater than any other power in the world would hope to maintain on a voluntary basis.

The record is clear that given the facts, that there was a draft motivation there, three military services—the Air Force, the Navy, and the Marine Corps—with limited exceptions, have met all of their requirements without resort to the draft. The fact is clear, too, that the Army, the fourth service in question, which has used the draft almost continuously, has at many times had minimal draft calls, when they have been successful in enlistments.

Representative RUMSFELD. I think you missed my point. I was not saying that the number of volunteers has been incredibly unsuccessful. I am saying that it is incredible that you can say that the policy

has been to minimize reliance upon involuntary induction, when you are paying the unrealistically low wage scales that are being paid. So, in addition, not only are you requiring people to serve through the compulsory system, you are in addition taxing them as has been testified on, and requiring them to serve for less than they could be earning in the private sector.

What is interesting to me, is that you can say that is your intention and still yet have a pay policy that is premised so much lower than the competitive situation.

Do you follow me?

Mr. WOOL. All I can say in that regard is that the levels of military pay are not uniquely established by the Department of Defense. They are established by the Congress in the last resort, and I think this in fact has been the pay policy of the Government over a period of years.

Representative RUMSFELD. Has the Department of Defense made recommendations to the Congress to the effect that the pay curve should be straightened out so that we would pay people during their early year periods of service a wage that would roughly approximate a competitive position with respect to the private sector?

Mr. WOOL. No, I do not think so, but, on the other hand, Congress has always had the discretion of making its own decisions in that respect.

Representative RUMSFELD. Let me assure you I am hopeful the Congress will exercise that discretion. I am also hopeful that the Department of Defense will show a little initiative in the area.

My time is up. I have dozens of questions, but I will yield.

Chairman PROXMIRE. Congressman Curtis?

Representative CURTIS. Thank you.

Let me see if I can continue on this theme of manpower utilization. Possibly, Mr. Wool, you have some comments to make on what work might be in being or has been done in this area of correlating military skills with the skills that exist in the private sector?

Mr. WOOL. I am pleased that you did quote from an article appearing in the Monthly Labor Review, which I wrote, referring to this 80-percent relationship. I should clarify this, and the article did.

Although there is a broad relationship among the type of skills performed for perhaps 80 percent of our personnel, and types of skills in the civilian economy, that the distribution of these skills is very different indeed in the military service. We require a far higher ratio of our personnel to be mechanics—aircraft mechanics, for example—to be electronics maintenance personnel and other types of skills of a specialized type, than are found proportionately in the civilian labor force.

Moreover, the specific content of these skills, the equipment they work with, the operating procedures, are in many cases significantly different, although some, of course, are very common.

Representative CURTIS. Let me comment here that the Seabee enlistment system in World War II was along the line of trying to compare the skills that existed in civilian society. If they had need for a bulldozer operator, instead of sending a young kid of 18 years old for 6 months of training and then to bulldozer operating school for 3 months, they got a fellow even if he was fat and 40, and put a uniform

on him, if he had been operating a bulldozer for 20 years. The rating of that skill, a first class petty officer or even chief in some instances, was then offered to him. This was somewhat revolutionary.

I remember Admiral Morrell had a hard time fighting to get it through. Then after World War II this kind of what I thought was a very rational system was abandoned and as near as I can determine there has been very little effort to do this kind of matching skills.

Mr. Wool. Things may seem revolutionary in the short term, but during the 19th century, for the tradesmen needed in the military service, the conventional procedure was to go on the civilian labor market and to hire these tradesmen.

Representative CURTIS. That is right.

Mr. Wool. This was particularly true of the Navy which had the merchant marine as a source for its skills. However, there are these fundamental differences, that although there are skills of the type—

Representative CURTIS. I should interpose. I said revolutionary as far as the military in 1940 was concerned, but go ahead.

Mr. Wool. Right.

Now, during the World War II mobilization, when the draft age range was as high as it was, and when motivation to serve, even apart from the draft, was quite high, there is no question but that the Seabee program was eminently successful.

You may be interested to know that this program was reinstated by the Navy this past year, and I believe some 5,000 men were recruited at advanced rates of pay.

Now, I do not know their ages, but I would be willing to hazard a guess that a very large percentage of these men were under age 26 and were men who were in fact draft vulnerable, and given the choice between being drafted into the Army or volunteering to serve in their trade—

Representative CURTIS. I am interested in that, but I think you are missing the point I am driving at, or, if anything, you are substantiating the point that the system certainly has worked in the past. What I am really trying to find out is what the Military Establishment might be doing right now in attempting to look into this comparability aspect to utilize this kind of system. Instead of this the military is procuring freshly caught young people and setting up their own vocational education programs, when there is evidence to demonstrate that what has been done in the civilian educational system can produce these same kinds of skills at much less cost and then let the military utilize those.

I am trying to find out what studies have been or are in being or might be put into being in the military along these lines.

One way of getting to it, has the military developed a dictionary of occupational titles similar to the one that exists in the civilian sector so that we at least have nomenclature for the skills that the military need? Have they got such a thing?

Mr. Wool. Yes, sir. Each of the occupational dictionaries of the military services shows the equivalent civilian D.O.—dictionary of occupational title or code—and permits for a direct conversion. In fact right now the Labor Department is exploring some additional work on the converting of their new dictionary in considerable detail to military job titles.

Representative CURTIS. That is just what I was going to ask. We had a dictionary in 1949, and one of the things we wrote into the Manpower Development Training Act of 1962 was to update that dictionary. It finally came out, the updated dictionary, in February, or late January, 1967.

Now, what the military had done before had been related to the 1949 dictionary of occupational titles?

Mr. WOOL. They inevitably used the existing version, the operating tool which was being used at any particular time by the Labor Department people.

Representative CURTIS. Well, sure.

Mr. WOOL. And we have met with the Labor Department people just very recently, in terms of a more elaborate conversion, based upon their current dictionary. This is an ongoing effort.

Representative CURTIS. We have also had some studies made into the other aspect of the vocational training that the military provides by asking people in the civilian labor force "Where did you learn your skill," and one of the items, of course, is in the Military Establishment.

So it comes back that way to some degree. But it also would be a study of the efficiencies of utilizing the civilian educational system instead of setting up duplicate vocational educational programs, again relating to the broad question, What is going on in the Military Establishment in this respect?

Mr. WOOL. I think there are two very pertinent facts. Our studies have shown—and every recruiter in the field knows—that the most important single inducement for a young man to volunteer for service, other than the pressure of the draft itself, is the opportunity to learn a trade or skill which may be useful to him not only in service—and many of them look to service, of course as an outlet for the skill—but in subsequent civilian careers. Our surveys show that.

Now, as a consequence of this, and as part of this situation, the typical enlistee who does volunteer is a young man who does not have a skill, an acquired skill. We do have procedures whereby men who enter service are classified, their occupational background is identified, and those who have a usable skill for which there is a military requirement will be assigned to that.

Now, our experience has been that in fact a very small percentage of the volunteers do come to us at a typical age of 18 or 19 with such a usable skill, and partly it is a consequence of the fact that our vocational training system in civilian life, as you know, is not all it should be. It is being changed, but this has not been the case in the past.

Representative CURTIS. It is a pretty good one. I could say this. I think it would be very interesting to have some comparisons made between the military vocational schools and the civilian, and I would give a much higher grade, a much higher grade, to the civilian, particularly in regard to motivation. This is because in the military you are apt to disregard motivation and send a boy who wants to be a bulldozer operator to a baking school and a boy who wants to be a baker would go to a bulldozer school. We could get into that.

Let me get to another thing.

In the 1920's and in the 1930's we did have a military program in our high schools to do just this. Instead of having the military bring a boy in and put him in uniform if they had a need for a particular skill, they would utilize vocational classes that could be taken in high schools and in schools around the country. This proved to be a very efficient method of not only recruitment but also getting the skill that the military needed at a much lesser cost.

And yet this came in as a subject back in 1950 and 1951 when we were talking about universal military training, as to why this kind of a system was not developed.

At that time the Military Establishment—these are my words—without even studying the problem, just assumed, "Well, we can't do that kind of thing."

Now, has there been any thought given in the Military Establishment toward utilizing or building up the vocational systems in the private sector to get these skills that the military needs?

Mr. WOOL. There is one specific project I might refer to. We have supplied the Jobs Corps with the information as to our requirements in various types of skills, which enrollees in the Job Corps might possibly qualify for upon completion of their training. Many of them have in fact entered military service anyway. They are currently studying those vocational courses of a type for which there is a significant military requirement and looking at the curriculum content, the proficiency requirements, and so forth, in considerable detail to see whether for those young men there who look forward toward enlistment, and many do, the training they receive in the Job Corps may help them in a specific assignment, in an occupation they are interested in, once they enter military service.

This is underway, sir.

Representative CURTIS. I see my time is up, but I would only make this comment: I am glad to hear about the Job Corps. Every industry or almost every industry in the United States is heavily in the vocational educational school system working right now, procuring the skills they need, so it is disturbing to me that the only thing apparently that the military might be looking at are in effect, the dropout areas.

I am talking about a manpower system for the total society and hopefully that the military would be trying to get the best manpower they could rather than go scraping the bottom of the barrel.

Mr. WOOL. This was at the initiative of the Job Corps. We are cooperating with the program.

Representative CURTIS. That makes it even worse. In other words, it was not even a military initiative that moved there. I guess I am not getting through to you.

Mr. WOOL. I think that the facts of life are—and there have been recent studies by eminent educators which have pointed to this, and here I think these studies do not quite jibe with some of your impressions—that the vocational training in the military services is far superior to that available in most civilian institutions. This is obviously arguable.

Representative CURTIS. You are darn right it's arguable.

Mr. WOOL. But I could cite these authorities.

Representative CURTIS. It is arguable; and I will tell you the thing that disturbs me. If this were so, why would the military fight public

hearings instead of conducting these executive commission kind of things behind closed doors where you do not even make your working papers available to the Congress or anyone else?

If you are so sure of your system, then let us see a few of your working papers, and I hope the Kennedy study group will start getting some of these working papers and getting into this area. Even our Armed Services Committees had commissions of their own conducting these same kinds of studies behind closed doors. This today is one of the few dialogs conducted in public.

Yes, I challenge your fine opinion of your own organization, although I compliment you for having that esprit de corps.

Chairman PROXMIRE. Professor Oi, I would like to ask you, How did you arrive at this \$325 a month figure?

Mr. OI. I used the same supply curve that the Department of Defense did. On the assumption that the relevant measure of first-term pay is the measure of base pay, the value of quarters and subsistence—

Chairman PROXMIRE. When you say \$325 a month, are you talking about pay alone?

Mr. OI. No; \$70 of that is subsistence, quarters, allowance, and an implicit tax advantage, so that the cash money that the man gets is \$255.

Now, the reason why I disagree with the DOD high estimates is that these impute values to medical care, dental care, et cetera. Their reckoning of first-term-pay percentage increases implies that the first-term pay of a recruit over his first 3 years of service must be from \$7,100 per year to as high as \$13,000 per year to attract 20 percent of the youth, and I have difficulty swallowing that. It just does not go down.

I estimated the necessary pay increase from the estimated supply curve, and then applied this pay increase across the estimated age distribution of the force to arrive at my cost figure.

Chairman PROXMIRE. As I compute the figures here, even if you simply paid the recruit the minimum wage of \$1.60 an hour, and you assumed that the hours—which is quite an assumption judging from the experience I had in the Army, especially as a recruit—that you only work 40 hours a week and 4½ weeks a month, this comes out to \$288 a month.

Mr. OI. Right.

Chairman PROXMIRE. If you assume that the average factory wage in this country would be competitive, you come out with a figure of \$505. The average weekly wage was \$144.25, which was in March of this year.

That would seem to me to be fairer than the minimum wage.

After all, in the city of Milwaukee, for example, we have very low unemployment. This is true in many parts of our country. There is no problem at all for a man to go out and get substantially more than the average factory wage, but the average factory wage would give him far more than you suggest here.

I am just wondering if \$325 a month would be competitive in the sense that they could do better financially by taking these jobs.

Mr. Ol. The 19-year-old and the 20-year-old who is having difficulty finding a job is getting below the factory average; also, my figures relate to a 1964 base, so they are a bit low.

The average income—full-time income—of the typical recruit, when weighted by educational attainment, was about \$270 per month.

Chairman PROXMIRE. We are in an area that is very, very hard to pin down, I am sure, because the average 19- to 20-year-old has an easier time getting a job if he has got a high school education or any kind of trade training at all in many parts of our country, I think you would agree, easier than a man of my age, for example. A fellow 50, 45, or even 40 years of age would have difficulty. This is not true of minority groups or it is not true in some parts of our country or even in my State, but in general a man 19 or 20 years old, especially if he is willing to move to a city where he can get the best opportunity, and heaven knows he is going to have to move when he goes into the military service, would not have much difficulty in doing a lot better than \$325 a month.

Mr. Ol. But remember this sword cuts both ways. If that is true, the tax we are placing on these kids becomes even more shameful.

Chairman PROXMIRE. That is right. I am not raising this because I think your budget estimates are necessarily wrong. On a \$325 assumption you say that to do this would cost \$4 billion more a year.

Mr. Ol. Yes.

Chairman PROXMIRE. And you do not allow for the reduction in cost because of reduction in turnover?

Mr. Ol. No, I do not.

Chairman PROXMIRE. You do not allow for that.

Mr. Ol. No, I do not.

Chairman PROXMIRE. Can you give us any estimate of that?

Mr. Ol. My hunch is that the simple training estimates—this is a rough calculation—is in the neighborhood of \$0.8 billion.

Chairman PROXMIRE. About \$800 million?

Mr. Ol. Right.

Chairman PROXMIRE. What other possible savings have you not included?

Mr. Ol. Substituting GS-3 typists for specialist sixth class Army typists.

Chairman PROXMIRE. Let us get into that. That has not been discussed. I notice that the Marshall Commission went into that to some extent, and some of the other critics or some of the other constructive proposals did, too. They went not only into that possibility of using more civilian personnel, but also of a much more imaginative and aggressive policy of taking people who were rejected, especially volunteers who were rejected, for military reasons and for mental reasons, and either giving them several months' education on the one hand, or giving them medical attention, which in many cases would be rather brief, in order to qualify them.

How about this aspect of the problem? Do you think this would be promising, too?

Mr. Ol. I think it deserves careful study. I have not had the data made available to me to do this, but my feeling is that if we used the realistic wage—or the real cost—of the labor now being used in:

uniform, we would find that a lot of military jobs not needed for rotational purposes are now being staffed by military personnel simply because the relevant price has not been used when making cost-effectiveness studies.

Chairman PROXMIRE. I want to come back to Mr. Wool later on this, but I want to ask you, if you increase the pay of your inductees to \$325 a month, how much do you have to increase the pay of everybody else in the armed services in order to provide the differential? You obviously are going to have to do this for the Navy, the Marine Corps, and so forth.

Mr. OI. Right.

Chairman PROXMIRE. You are also going to have to do it, I presume, for your noncoms, for your officers, and so on, right up the line, is that not true? Is that included in your estimate?

Mr. OI. Correct. The \$4 billion estimate includes that; and I am estimating that the pay of the career force will rise by about 16 to 17 percent.

Chairman PROXMIRE. You should have a lot of supporters for your position on the basis of that calculation.

Mr. OI. A minority though—only 3.4 million.

Chairman PROXMIRE. I would like to have that many votes.

Do you care to comment or not comment on the effect that this would have on the attitude of our people toward Vietnam? Would it not be more objective? I recognize that it is not necessarily completely pernicious for people to say that the draft does have the effect of hitting people where they live on what the Vietnam situation is doing. At the same time, it also undoubtedly has a very negative effect in the most volatile section of our society in many ways, the college campuses, our young people—that is, because they are forced to go into our Armed Forces, they take and their parents take and their friends take a far more negative attitude toward Vietnam than they would if it were on a voluntary basis, is that not true?

Mr. OI. I really feel that the connection is not that strong. There is a lot of complaining about the Vietnam issue on many campuses, but the threat of being drafted is a small part of the whole.

Chairman PROXMIRE. I am sure, but is there not also involved in this, Professor OI, the feeling on the part of many conscientious people that, after all, that student deferment they are getting is one that they feel psychologically guilty about or concerned about, and they feel it is unjust to a considerable extent, and at the same time it is the reason that they are not in the Armed Forces, and this is one reason perhaps why many of them vocally and outspokenly rationalize their feeling of guilt perhaps in criticism of our position in Vietnam?

Mr. OI. I really feel not qualified to answer that question.

Chairman PROXMIRE. I do not know that any of us are qualified.

Mr. OI. Let me take refuge in the simple fact that I am speaking as an economist and have no strong convictions on these aspects. Perhaps one of the other two panel members does.

Chairman PROXMIRE. Professor Schelling?

Mr. SCHELLING. I am struck with how variegated student attitudes are on this. On the one hand, there are those who say nobody should

be obliged to fight a war he does not believe in: eliminate the draft. There are also those who say the Government should not be free to have any war it can hire people to fight: keep a draft and make it a universal lottery. I believe there are many whose views about the draft flow, not in a direct way but in an important way, from their feeling about the war in Vietnam. I doubt whether there are many whose feelings about the war in Vietnam are related to the kind of military manpower system that we have.

Chairman PROXMIRE. I would like to get back to your initial testimony, Dr. Schelling. Are you saying that you favor the draft, but also favor adequate pay? That it would be fine if we did not have to have a draft, but if we have to have it, we also ought to have pay that is comparable and competitive?

Mr. SCHELLING. When I say we have to have it—

Chairman PROXMIRE. I mean you ought to have it in terms of equity, in terms of size, affluence of our economy, in terms of any kind of value judgment that you think is justified.

Mr. SCHELLING. I do not think we ought to feel obliged to use it. Nobody can guarantee that we will not need 6 million men in the services sometime in the next decade, and if we need 6 million men, I have a hunch that we are going to have a draft no matter who wins the argument between Mr. Oi and Mr. Wool.

I also think that we ought to lay the legislative base for that kind of draft, so that we do not have to improvise it rapidly.

Therefore, in principle, there potentially is a draft. If it is not on the law books, we will get it in a hurry. There is no constitutional provision against it, and there it is. The Government will get the men it needs.

I also suspect that the market system, even within the range of say up to 4 million men, may frequently just be not quickly adaptable. I doubt whether Congress is going to leave it up to the executive branch to reexamine several times a year just what the market requires, and to raise pay as flexibly as a business firm might.

So we are bound to have a system that is at least somewhat rigid. And there may be months, quarters, even years, when we do not use the draft we have. I anticipate that we shall have a draft on the books, that it may have to be used, and that it probably will be used.

Then I would turn around and say it would be a splendid idea, irrespective of these supply questions, to pay the men the Federal minimum wage. It is not easy to calculate—you have to calculate the tax advantage, how to handle subsistence, and so forth—but there is an opportunity here to make an experiment. That is, if for reasons other than getting more soldiers we think it makes sense to raise military pay, we have an opportunity to do it, and see what results it leads to.

As a byproduct, we will get some new data for Mr. Wool and Mr. Oi. And since this problem is going to be with us for 10 or 15 years, we can watch and see what happens in the next 2 or 3 years. If there should be a significant change in military pay, we may be able to draw some conclusions about how much further to go in the interest of inducing a greater supply to come forward.

Chairman PROXMIRE. Of inducing what?

Mr. SCHELLING. Inducing more enlistees to come forward. If we find that having raised pay for independent reasons we did not get many more enlistees, then we know something.

If we find we get a lot more, then we can raise it a little more on grounds that, in addition to the advantage of paying these people a decent minimum wage, we find we can get away from a lot of the nuisance of the draft and improve efficiency.

Chairman PROXMIRE. My time is up. I am going to have to go for a rollcall. I will ask Congressman Curtis to take the Chair. I hope I will have a chance to come back and ask a few more questions.

Representatives CURTIS (presiding). Mr. Rumsfeld?

Representative RUMSFELD. Mr. Schelling, what you have said early in your prepared statement is essentially a comment on the response you just gave to Senator Proxmire. I want to say that I find myself very much in agreement with your—what seems to me—very reasonable approach to this.

You suggest in your response, however, that there is somewhat of a difference between you and Dr. Oi. I would like to give Dr. Oi an opportunity to comment on exactly what his position is, because your position, as I see it very simply, is that we are going to have to have in this country for the foreseeable future a compulsory system to recruit military manpower. It has to be available; that we should use it as little as possible, and that at that point where we for national security reasons need a certain level and we cannot recruit it through voluntary means, we should then trigger it in, and that it should be the best possible system, and that parenthetically we should also pay the people who serve in the military a wage that does not amount to a tax on them while they serve, but rather should be something that is close to the Federal minimum wage.

Finally, you stated that during this period of time, having raised the salaries to a reasonable level, having resolved to try to maximize volunteers, we could during the next year or two gain experience and fill some of these very serious information gaps, information gaps, I might say, which even Mr. Wool refers to in his statement.

He says we do not know.

Well, if he does not, who does?

I think this is very important.

Dr. Oi, could you comment on whether or not you agree or disagree with that general approach?

Mr. Or. I agree with the approach. I would like to see the day in which we announce that we will place maximum reliance on a voluntary force. I would then like to keep a draft on the books as a backup in case of an all-out emergency in which force strengths would have to be built quickly up to 4 million.

In the meantime, if we are talking about foreseeable force strengths of from 2.7 to 3.1 or 3.3 million, I believe that so long as our military requirements lie within that range, we can achieve the goal on a voluntary basis.

Now, in the interim, whether I am right or whether Mr. Wool's high estimates of the costs are right we can determine by making the appropriate adjustments in the pay scale; and I agree completely with Mr. Schelling on this. For the present, I would like to see the pay

raises enacted, data collected and analyzed, and the draft extended for the 2-year interim.

Representative RUMSFELD. Fine. Now Mr. Wool, following this line of questioning, we have had in your statement indication that you fully agree that we are going to have a compulsory system, and in your statement you specifically say it should be used as little as possible, that we should maximize volunteers.

Do you agree with the first part that both the other gentlemen stated? With respect to the pay, you have commented that that is for the Congress and for the administration to work out and we have set that aside and recognized that to the extent anyone believes that pay should be increased, that the blame must be shared by the Congress and the administration for the fact that it is not being done.

On the third point you again fully agree, as you did on the first, that we need more information, that we should try to fill the information gaps; correct?

Mr. WOOL. Correct, sir.

Representative RUMSFELD. In your statement you make your fourth point which says:

Fourth, and perhaps most important—

These are your summaries of Mr. Morris' testimony—

that there would be very limited flexibility under an all voluntary system to increase military strengths even moderately within a short period, should the need arise.

Now I must say you have said this much better than the President did in his message to the Congress, where he said he would not want to gamble with the Nation's security, but it is the same point.

You and the President are suggesting that having a volunteer system is inflexible, might not meet our national security needs, and to use the President's words, is "gambling with the Nation's security."

I don't believe that is the case, if you have, as Mr. Schelling suggested, as Dr. Oi suggested, as anyone I know who has suggested moving toward a voluntary system has suggested, retained a compulsory conscription mechanism to be available, to be triggered in to the extent it is needed, but not as a crutch and not as a need, solely because we are paying salaries that are considerably lower than necessary. Now do you see any flexibility in the problem or do you stand on this statement in your testimony?

Mr. WOOL. I think that we in part have a semantics problem. The President's message and the statements of the Department of Defense are in the context of legislation requesting extension of the authority to induct men into service. In other words, now if you are talking about—

Representative RUMSFELD. You mean to not pass the act would be gambling.

Mr. WOOL. Certainly.

Representative RUMSFELD. To not provide any mechanism.

Mr. WOOL. The authority for induction, which is the context in which these statements were made.

Representative RUMSFELD. Ah, thank you.

Mr. WOOL. In other words, not to have the authority to draft men when and if you needed it would be gambling with the Nation's se-

curity, because we do know, and I think we have every reason to believe, that just from the sheer arithmetic of the thing, assume we needed a relatively moderate increase in strengths in the Armed Forces of perhaps 10 percent in a given year's time. Assume we were in a situation which would happen, of a depleted Reserve force, because you wouldn't be getting the volunteers into it, and you wouldn't be getting the turnover of active-duty military personnel who had a Reserve obligation in a voluntary situation.

This in fact is what we have in countries like the United Kingdom, Canada, and Australia. Not Australia now, but they had it a few years ago. You would have to rely upon the only method available, the market mechanism for increasing your strengths.

A 10-percent increase in strength, given the turnover situation, means something like a 50-percent increase in recruitment. Using the curves developed by Dr. Oi and his colleagues, to get that kind of increase in a short period of time, given the lags involved in any decisionmaking process, not only in the Congress or the Department of Defense, but in terms of changing people's attitudes toward service, and you can't push a pay button and get people to jump up and change their minds about what they are going to do about their lives, it just doesn't happen that way, I think that that would create that kind of inflexibility.

Now our record shows that when we didn't need draft calls we didn't have them. We didn't have them in 1949 to 1950. There were 2 months in 1960 when there were zero calls. There were other months when there were 3,000 calls, because at that time—and, incidentally, in a period of economic recession—the Army was able to get a relatively large number of volunteers in relation to a 2½-million-overall-strength level.

Now it is quite possible that, perish the thought, if we have a relatively high level of unemployment or, conversely, if we are successful in many of these management initiatives which are being pressed—it is completely possible that there may be periods in the future, that with the authority to induct, we might not need to draft people and we would be delighted.

Representative RUMSFELD. Let me see if I can summarize that in a sentence. Then you agree that the proposal that Dr. Schelling and Dr. Oi are putting forward is flexible and is not gambling with the Nation's security, as long as that compulsory system is available. It is sufficiently flexible to be triggered in, and there is no allegation that their proposals are inflexible. This argument disappears.

Mr. WOOL. I think that, first of all, I am not talking about pay policy.

Representative RUMSFELD. No; I am talking about how you answer my question.

Mr. WOOL. Secondly, as far as the extension of the induction authority and using it as little as is needed, if this is the essence of their recommendations, and of a continuing positive effort to maximize volunteering, if this is the thrust of the argument, I don't think there is any issue.

Representative RUMSFELD. Then the argument about flexibility goes out the window.

Mr. WOOL. Because you have the draft authority and you have a draft system, so we have that flexibility and we want to continue it.

Representative RUMSFELD. Right. Now you talked about the problem of semantics, and I guess maybe that is a problem, because you say when we didn't have draft calls, and you used the word "need." The trouble that comes to my mind, did you need them then as badly as you thought, or if by adjusting pay and other things, that need might have been moved farther in the distance.

In other words, at a certain manpower level, you decided, the Department, the administration, you are their spokesman here today and a very able one, but somebody decided that the need was there, and admittedly it was, given that pay policy.

Now don't you agree that revising those pay policies will change the point where need can in fact be demonstrated?

Mr. WOOL. I think our own estimates show that a substantial increase in pay should produce some increase in volunteering.

Representative RUMSFELD. Right.

Representative CURTIS. And retention. You keep talking about volunteering in your papers but you never say anything about retention or staying with it and making a career of it. This is where your savings and your quality go up. Pardon me, I couldn't restrain.

Representative RUMSFELD. I would like some comment from Mr. Wool or Dr. Schelling or Dr. Oi on the estimates and the study figures that were cited by Mr. Wool with respect to the impact that pay policies can or cannot have.

Isn't it true that your studies were based on all below a level that had any relationship at all with what the Federal minimum wage or what the private sector is paying?

I don't see how you could get a good study, if you are dealing substantially below a competitive level. Do you follow me?

Mr. WOOL. I think we should clarify the pay question to this extent. That so often what is cited as pay for the enlisted man is the basic pay or even the total compensation of the private when he first enters service in his first few months of service.

Now this pay is for the private at pay grade E-1. Now the typical time for advancing from that grade to the next one is 3½ months.

Representative RUMSFELD. I am not talking about that. I am talking about your studies.

Mr. WOOL. Yes. Now actually, the facts of life are that if the true compensation of military service was so terribly low we would not be getting even the numbers that we estimate would be available as true volunteers. We say that about 60 percent of the volunteers among enlistees whom we were getting in during the previous few years came in without draft motivation, based upon our surveys, and that is a substantial number of young men in this country. Thus it may be that the alternatives available to them were much worse than these comparisons suggest, in other words, that they could not really earn as much money in civilian life.

There is a tremendous range of earning potential in civilian life, and that many of the young men who in fact volunteer, either because of economic reasons or other reasons, found that the economic opportunities in military service, even under existing pay scales, were better for them.

Representative RUMSFELD. Let me stop you there. My time is up, but I would like to pursue this. Say for 1 year's service the actual pay in 1963 was \$1,830 on this chart, and Dr. Oi is proposing \$3,130 for the first year. The studies you recited in your testimony I assume were based on asking questions and trying to determine what an increase from that \$1,830 would do with respect to retention or attraction of people to the military; is that correct?

Mr. WOOL. It was based upon the observed behavior of how many men actually enlisted, given a fixed uniform military pay scale, and differences in civilian earning opportunities for them. From that relationship, based upon their behavior, we developed certain estimates. In other words, it wasn't based simply upon asking them in an opinion poll.

We found this is often of limited value in this context. We did have observed behavior to go on, but very limited observations.

Representative RUMSFELD. But at any time, did your studies approximate the \$3,130 figure for the first year that Dr. Oi is suggesting, so you could evaluate what impact that would have?

Mr. WOOL. No. We had to—

Representative RUMSFELD. They were all substantially below that.

Mr. WOOL. We were looking at the actual behavior under existing military pay scales and under existing civilian earnings as they differed throughout the country.

Representative RUMSFELD. Right. This is where I want to arrive. It sounds to me like what we were saying then. We were saying in your policy or in your survey, your study, you were saying to people "Okay, the competitive rate roughly is \$3,130. Now we would like to have you work for \$1,830 and we want to see how many will do it for that figure that we are presently paying, but let's see what maybe \$2,000 would do," all of which is way below the figure of \$3,130.

I don't see how you could get very accurate figures or studies, if you are asking a person whether he wants one worm, or two worms, or three worms in his apple. Or asking him if he wants 50, 55, or 60 percent of what he could earn elsewhere.

Mr. WOOL. I think the true value, the economic value of the military service for the young men, in this country, is not truly measured by these cash comparisons.

Representative RUMSFELD. I am trying to understand your studies. You are citing them in your pay program.

Mr. WOOL. Yes. In our studies we simply said this. In fact, given current military pay levels and current civilian earnings levels, what happened. What proportion of our men did volunteer, and of these, how many volunteered purely on a voluntary basis without draft motivation?

We found that a certain percentage did it at the prevailing military pay level, and we had to extrapolate from the changing relationship as we found it among parts of the country, with their different civilian earnings levels, what might happen if in fact we moved up on this curve to a higher level of military pay. It was a forecast.

Representative RUMSFELD. Nowhere near \$3,130?

Mr. WOOL. Yes. It went up to the possibility as you can see for the average of 4 years of service, for example, of \$8,700 as an average in the first 4 years of service, under the high probability range.

Now this was a judgment. It was a judgment made by Dr. Oi and his colleagues as to the pattern of the supply curve. It was one of the biggest we had to make. And Dr. Oi found it convenient not to show these standard errors. But we felt it essential that we show both the range below our best estimate and the range above it, because there is a great deal of uncertainty as to these responsiveness factors.

Representative RUMSFELD. I will stop there. I do think we owe Dr. Oi and Dr. Schelling a chance to comment on that, because I think this is an important question.

Representative CURTIS. Proceed.

Representative RUMSFELD. Yes, could you two comment on it? Dr. Schelling, would you comment, or Dr. Oi.

Mr. Oi. First of all, you state your high estimate as \$8,700?

Mr. WOOL. For the first 4 years.

Mr. Oi. Because your paper lists the average first term pay as \$3,415 and we would need a 200-percent increase on that for the high estimate. To reach your high figure I would have to add \$7,830 to the \$3,415. I am having some trouble trying to reconcile the two figures. The reasons I did not use the high estimate are: first, it led to very implausible results; second—and this is a technical point implicit in the very method by which we are estimating—within the regression equation our independent variable contains some observational errors giving it a bias toward zero. Consequently, if anything, we should take either the point estimate or the point estimate plus one standard deviation—certainly not less.

Therefore, I believe that the high estimate is just implausible.

Representative RUMSFELD. Thank you, Dr. Oi.

Now, just to conclude this, Dr. Schelling, the question that Dr. Oi has responded to and the question I am interested in is would you comment on the assumptions that Mr. Wool's study and the citations are premised on. As I understand it, they are based on a 4-year pay, is that correct?

Mr. Oi. Three and a half.

Mr. WOOL. The base figures used were the average pay on the first tour of duty. From these, we developed other relationships for career people, too.

Representative RUMSFELD. It seems to me that the critical years are the first two or the first one.

Mr. WOOL. The first term of enlistment is up to 4 years. The standard tour of enlistment in the Navy, Air Force, and Marine Corps is approximately 4 years, so we looked at that total.

Representative RUMSFELD. Dr. Schelling?

Mr. SCHELLING. If we had time, I should like to hear Mr. Wool repeat some of his very cautious remarks about the scarcity of pertinent data and the need to make very crude estimates based on what data we have. Those expressions of cautious uncertainty were more worthwhile than arguments over figures that, it has now been established, are barely worth arguing over.

On this question of the range of error, while I think it is always worthwhile to provide us a range of error, Mr. Wool's range is based on the standard error of a regression coefficient calculated from a very small number of observations of barely pertinent data, and I am not

sure that the accuracy of the limits of the range are worth quite all that attention.

I do have the impression as I look at his data that he may have underestimated some of the savings, due to reduced training cost, lower required accession rates, and so forth, and that in interpreting what it is that attracts a young man, he used the total pay plus services in kind, whereas it may be that services in kind needn't be increased at all and we can apply his percentage figures to a smaller base; namely, the cash figure, rather than the larger total.

This would cause me to put his best estimate at a figure perhaps half the size it is. On the other hand, I think we should recognize that aside from the fact that the data are in many cases very circumstantial and indirectly relevant only, that it isn't just pay and unemployment that matters.

The job changes. If you make an estimate of what it would take to get half a million men in the Army when it means going to Europe for 2 years, that may be different from getting half a million men in the Army when it means going to South Vietnam and being shot at for a couple of years. Therefore, even if Mr. Oi or Mr. Wool were exactly right about what the data show you could have done in 1962 or in 1964, this is 1967. We are talking about the next half dozen years and the character of Army, Navy, and Air Force life is going to be very different.

In addition to that, when we superimpose changes in the character of society through poverty programs, and so forth, we may also be affecting, in the half dozen years to come, the incentive to stay out of the Army, the incentive to go in the Army, the alternative opportunities available, so we are in a range of uncertainty that I think is even wider than Mr. Wool himself has asked us to accept.

We just don't know, and I don't know any way to find out, but if we were convinced that, for other reasons, a significant pay increase made sense, then we could get at least one experimental observation—again limited to the time it occurred—but at least one more important observation from which to make judgments.

Representative RUMSFELD. Thank you very much.

Representative CURTIS. I am very pleased to see the unanimity on the general proposition that Mr. Rumsfeld was able to develop.

Let me revert then to the resolution that I have been proposing in the Congress since 1963 that the Pentagon successfully subverted. This resolution would merely create a joint committee of members of the Armed Services Committee and Labor and Education to study this area. That is all.

I felt that it needed study, and that it couldn't be done by the Armed Services Committee alone. It had to tie in with those who were familiar with the manpower situation in the civilian sector; namely, those on Labor and Education Committees. I said at the time that I felt that we had to keep the draft or the compulsion on the shelf, even if something did come out that was feasible, and I still feel this way.

I have already said that the time is too late to do a study. The Pentagon has been successful in sabotaging an honest study in public, in order to get something done by June 30. It is impossible. This is why I have a little bit of impatience with such testimony. Yet I am

glad to have Dr. Wool here, and these remarks are by no means directed to him, but to the situation.

When we started to get some momentum toward creating this joint committee, the President appointed an executive commission, which the Pentagon then controlled, and that commission was supposed to report; I think it was in 1965. But there was a delay and there never was a report made. All we got was a report on a report.

Even before that was completely out of the picture, another commission was appointed. Again we don't have any working papers from that commission. It is not just the Congress, it is any group of citizens in this country that would like to follow this who are now unable to do so.

At that point, I made the probably unfortunate remark that I would rather see a lottery system than what we have. People thought I meant that I wanted a lottery system. I don't. I think we have got it within us to have a rational system. But I said I would rather have one that is just completely by chance than the one that we have got, which is so irrational. I still feel quite strongly this way.

Now all of this ties in with some other studies. One of the things that I developed in this area—again it is in economics—was the McCormack amendment, which has to do with the basic procurement system of the Military Establishment. Here I could give Mr. McNamara some plusses. But part of this, too, was trying to implement the second Hoover Commission recommendations in getting the military out of a lot of civilian-type activities. Get the uniform off of it, because the kind of functions like roasting and distributing coffee among other things didn't require military skills.

It gets back to the problem of what do we need to have performed in uniform and what out. What do we need to have performed under a system of martial and military law and what can be performed by human beings for the military under civilian-type law, or maybe a stepped up kind of law which might be necessary.

I said in my first remarks by you three gentlemen appearing and preparing these papers we are at least starting to talk about the things that I think should have been talked about a long time ago.

Maybe, Mr. Wool, if the Pentagon were not so secretive about all of this, maybe some people around the society could be giving you studies and information on these areas where we don't have complete information.

I am not going to ask any further questions. Just two other comments. As one who serves on the Ways and Means Committee that tries to figure out how to raise the money for all these things, I have felt for some time we never have really calculated the cost of war, including the shifting in and shifting out. Veterans' pensions I agree with you ought to be a part of the cost of war, and they ought to be a part of the cost that is being imposed on us by this system that creates such a turnover that, as Dr. Oi said, only 7 percent reenlist.

The amount of increase in veterans' pensions, because of this kind of low reenlistment is extreme. Believe me, we are talking in terms of billions of dollars.

You mentioned the GI bill of rights, which I happen to feel is one of the great things that has come out of all of this. But that is a

poor way of getting young people educated, I would say. It is fine that they do get the education, but again with the turnover in your system, this is part of the cost.

Now the final point I wanted to discuss has been mentioned but I wish to repeat it because what I have been talking about has been so often misconstrued. Many say oh, you want a large standing Military Establishment and I say no, because I recognize the dangers in our society along those lines.

I think our wars essentially are going to have to be fought by the citizen soldier, just as I was in World War II and many of us were. It means though a small professional group with a real Ready Reserve. Again, the Ready Reserves are paid, but attention must be given to matching those skills with the skills of military needs and keeping them up to date. Compare this with the system we have got right now.

Here we have heated up into a war, and the Ready Reserves haven't even been used. In fact, there are many people in the Armed Services Committee, and here is where I do agree with some of their comments, who say you can't use them because they aren't ready; that they haven't even been trained, and there has been no attempt or very little attempt to relate the skills that are in the Reserve components with the skills that the Military Establishment would need in the event of a heat up such as we have now.

One of the Reserve units that I happened to look into and know about is located at Lambert Airfield, or St. Louis Municipal Airport, which consists of employees who operate the airport. If you ever called that unit up, we would have to shut the airfield down, which would be needed for military as well as civilian travel.

The only significance is that the Manpower Commission, which is supposed to concern itself with occupational deferments, isn't on top of this at all, and there is apparently no coordination between the skills needed in the civilian society in the event of a heat up, and the skills that might be taken out through the Ready Reserve system if it were used.

Now all of these subjects that we have just been discussing upon here briefly are the kind of things that a congressional committee would probably take a year or so to really get into the full depth of the problem. So here we are with the rain falling on the roof, and we have done nothing in the 16 years I have been in the Congress to try to take a rational approach on it.

I hope that we can start doing it, because as near as I can figure, I think our studies would reveal, in spite of your fine statements, Mr. Wool, that we can have a volunteer system that would eliminate the inequities, the inefficiencies, and we would end up with a much less cost in our society if we could to it.

Thank you.

Chairman PROXMIER. I would just like to ask a very few questions. I think you can give short answers. As I was questioning last time, Mr. Schelling, you were saying something about how, disregarding equity, that there was a good argument for higher pay for enlistees and for those coming into the service at this time. I am sure you wouldn't disregard equity.

Mr. SCHELLING. I meant to say the opposite—that on equity grounds there is good reason for raising pay whether or not it would bring in enough extra soldiers to reduce greatly our reliance on the draft.

Chairman PROXMIRE. You said one reason why we need student deferments, one reason why it is helpful to get people after they have had the chance to be in college, is because we need officers. I would like to ask you this.

I am prejudiced because I got promoted to second lieutenant after 3½ years as an enlisted man in World War II, including more than 2 years as a master sergeant. Why can't our officers come from the ranks? It is my feeling, prejudiced as I say, that the best officers do come from the ranks. The fellow who had some years of experience, even though he had less education as an enlisted man, was likely to make a better officer than one who hadn't had any.

Of course, I think there is this feeling in general around the country. Those who read the comic strip Beetle Bailey are familiar with Lieutenant Fuzz. He is the second lieutenant who looks as if he just climbed out of the crib. I think there is a feeling on the part of men in the armed services that they have more confidence in those who have gone through the ranks and have had a chance to serve as enlisted men. So what is wrong with that as a source of our officers? Wouldn't it be better for morale too?

Mr. SCHELLING. It is hard to disagree with the notion of promoting men from the ranks. One might go further and say that if what the men whom you would promote from the ranks lack is a college education, give them a couple of years of the right kind of education to make up for what is either a professional or perhaps even a social deficiency.

I was going on the assumption that the services do need officers who have appreciable schooling beyond high school. They tend to get it as a result of the college education of a lot of people. If this is what they need, if that is the pertinent kind of education, then I was only indicating that there may need to be some way of inducing people to become officers, when you don't have as powerful a draft to scare them off into the ROTC.

One of the interesting things about a lottery—

Chairman PROXMIRE. Let me interrupt to say wouldn't one of the fallout benefits of the Oi proposals be that you substantially increase the pay of enlisted men and then increase the pay of everybody in the armed services, wouldn't that have the effect to some extent of persuading more people with college educations to come in, if they were qualified to be officers?

Mr. SCHELLING. Yes; but if the Defense Department then says that they can't be assured that they will get anything like the officers they need, I would say then we need some further kind of programs.

One of the things we don't know, you see, if we switch to a lottery, is what odds or chances are required to induce a man to sign up in an officer program rather than run the lottery. At the present time a young man can estimate whether or not he is likely to be drafted. With a lottery, we don't yet know whether a 10-percent chance or a 40-percent chance or a 70-percent chance of being drafted is what

it takes to get a young man to sign up in an officer program rather than run the lottery risk.

On the other hand, if people are selected to serve, they can surely be put through officer programs which entail, let us say, a college education and several years of obligatory service thereafter.

Chairman PROXMIRE. I would go much further than you went just now on the basis of no less authority than Burke Marshall, who was assigned to study this and had a big commission of very competent people working with him who said that anybody with enough brains, and I don't think it takes very much, and enough money, can beat the draft today.

I think that is a terribly serious indictment. It is strictly a class operation. What he means of course, anybody who can get into college, can get into graduate school and then go into teaching or go into some other occupation where there is a deferment, or get married and have a child along the way, can beat the draft. I think that this is perhaps the worst aspect of it.

I would like to ask Mr. Wool what the Defense Department's position is on this.

Mr. WOOL. Are you referring to your last question, sir?

Chairman PROXMIRE. Yes; Burke Marshall's statement.

Mr. WOOL. I should emphasize that the statistics which served as a basis for Burke Marshall's statement were derived from our study. They were published in various ways, and they did highlight particularly the fact, which you mentioned, that among those college graduates who went on to graduate school, the percentage of men who ever saw service was very small.

For the entire age group 27 to 34 years, whom we surveyed, only 27 percent of these men saw military service as compared to 74 percent of the typical high school graduate who didn't go to college at all. We found, incidentally, that the men who had just got a bachelor's degree and typically graduated at 21 or 22 had a relatively high rate of service as compared to the men who went on to graduate school. It was not much lower than the high school graduate. But even that showed a trend in the years immediately preceding Vietnam where that too was dropping off.

At that time we had a married man deferment in effect. So that the answer, in my personal judgment, is that the system which we have had in effect did tend to operate at the upper levels as being class discriminatory, though it was never designed that way. It happened because of these deferments.

At the lower levels it was too; because of the fact that we were rejecting men with limited education in a range which was adequate for many of the more basic skills in service, although not the more technical ones.

We also had a very low percentage of service among the underprivileged in the country. This was a very peculiar form of class discrimination.

Chairman PROXMIRE. Yes, but don't you find—that was an interesting study in Wisconsin. All of our 80 draft boards, were studied on the basis of whether they were located in a high-income, low-income, middle-income area. The study found in the minority group area, in Mil-

waukee, of course, as in many big cities, there is a heavy concentration of Negroes, that whereas those who were physically fit and mentally qualified had a very high rate of induction, that there wasn't a high rate of enlistments.

The Negroes were taken into the armed services in Milwaukee, if this is typical at all, because they were drafted. The prospects of their being drafted not only because of their lack of undergraduate deferments, but also because of the inaccessibility for them to have Reserve or National Guard status—discrimination was very conspicuous.

Mr. Wool. I think the Marshall Commission study, again based upon the data which we provided it, highlighted some of these problems. Now in effect if you look at the Negro population as a whole, the facts are that the percentage of men who served was lower than the percentage of whites because their rejection rates for educational reasons were so much higher.

If you look at those who are qualified for service, you find that the percentage who were drafted among those qualified was significantly higher than among white men, and I think you have hit at the reasons.

First of all, our enlistment and our officer programs have tended to be more selective in various ways. Many of the enlistment programs in the past had higher standards than the basic draft standard. There was a significant group, particularly of Negro youths and others who fell in between. They didn't qualify certainly for the more selective enlistment programs, where they had a choice of skill and training, and they therefore fell in the limbo of having only the draft as a viable alternative.

Second, the percentage of Negroes who qualify for officer programs, because so few graduate from college, was much smaller than for white men. And finally, the percentage who enter the Reserves, which were also in a position to be selective, was much lower than for whites.

Now in the latter area particularly, a number of measures have been initiated as described by the President in his recent message to correct that situation.

Chairman PROXMIRE. Has the President recommended measures to do as Secretary Wirtz has suggested to take mental and physical rejectees by the scruff of their necks, to have that correction made, that needed medical correction, or those who just barely miss the mental qualifications because they haven't had enough schooling, and give them training of a few months?

Mr. Wool. What we have done is to significantly lower the mental qualification standards.

Chairman PROXMIRE. I understand that.

Mr. Wool. These men, about half of them whose standards have been lowered have in fact volunteered for service. The other half who have entered have been drafted. The half who have been drafted in this range have in fact, been taken by the scruff of their neck.

Now they have been taken in because there was a realistic potential for using these men, under our existing training system, which does look at the individual and his progress rather than treating him in a completely assembly line fashion, which has from our experience permitted him to qualify as a fully proficient soldier.

We have not initiated any special literacy-type training effort, because at the levels we have established, these men in fact are, with very little exception, basically literate. They have enough to pass basic military training and as we move on to qualify for many of the more basic military occupations. We have not gone below that level.

Chairman PROXMIRE. In giving the Department's position on the opposition to, as you put it, a completely voluntary system, you talked about the risks involved. Why is there any risk involved, especially if you follow the prescription which I doubt that Mr. Oi would contest against, leaving the draft law on the books and giving it a chance the way Mr. Schelling proposes, having a very big increase in pay, to \$325 or more, and seeing if this works.

If it works, you have lost nothing because you have all the advantages we have discussed of a voluntary army. If it doesn't work, certainly you have better morale, better equity—you have all these other advantages.

Mr. WOOL. From a technical standpoint, if to paraphrase, you are saying retain all the existing authorities to induct people, if and when needed that we now have, and in addition, if the Congress chooses to enact a law which raises military pay, we will have an opportunity to observe what effects this has, from a technical standpoint there is no risk other than the costs involved in a permanent mortgage to a higher pay level and all its other concomitants. This is something which is clearly a policy and fiscal decision.

Since you are not taking away any authorities but adding an incentive, there isn't any risk. If you are taking away some authorities, there is a risk, and it is a matter of defining terms here.

Chairman PROXMIRE. Wouldn't you agree that this 9-percent figure that you said for whom pay is the reason that they didn't come into the armed services? This 9-percent figure depends very greatly on what kind of service potential enlistees might anticipate?

Obviously, at a time when we have heavy casualties in Vietnam or when the prospect of overseas service is great, a hardship service, the pay would be less important than it would be under peacetime conditions.

Mr. WOOL. I agree completely. Of course, that figure reflected the feeling of young men as to what is important in choosing a career in peacetime.

Chairman PROXMIRE. Isn't it true in asking about service to our country, you wouldn't expect people to say that pay is first. You wouldn't expect an answer like that. Most people would say, according to our values, well, I serve because it offers a challenge and it offers an opportunity to serve my country, and so forth. The pay may be very important to them, but they don't think it is quite right to say so, especially to a stranger who comes up and asks them questions on it.

Mr. WOOL. I feel that all these survey results on attitudes and what you would do if something happened have to be taken with a grain of salt. I think that all the things you have said are true.

I think that is very true, as Dr. Schelling said a moment ago, that the image of service life, the conditions of the services as they exist at given times, and all the practical alternatives which men have available or may have available in the future are all part of this very complicated picture.

I think that when we are talking about pay in relation to job choices, young men think in terms of certain levels of jobs. The college man, for example, is choosing among professional jobs. The high school boy is choosing among those jobs which might be available to him.

A tremendous quantum jump in military income would, over a period of time, certainly contribute to a change in that image, I mean to some extent, and that is the mechanism through which this curve we talk about would work.

Chairman PROXMIRE. I just have one final question. As I recall, the President in his message on the draft said something about the thousands of civilians moved into military jobs; is that correct?

Mr. WOOL. 114,000 in last year and the current year.

Chairman PROXMIRE. What kind of study has been done by the Defense Department to determine what other military jobs now could be taken over by civilian personnel?

Mr. WOOL. Well, this program, incidentally, was again part of the initiatives which started from our draft study, and again this whole matter has been under intensive study within the Department of Defense continuously in the past 2 years.

Chairman PROXMIRE. Are there fiscal limits on it?

Mr. WOOL. No.

Chairman PROXMIRE. In other words, do they say it is too expensive to hire—

Mr. WOOL. No; on the contrary, it was not affected by fiscal considerations. The practical situation is that although the short-term immediate costs of the civilian are higher, the long-term costs of the civilian may well be lower because of the fact that the military man does have a training and turnover cost above his direct compensation. This was done as a policy matter primarily rather than in terms of economy, though I think it has longrun economies associated with it.

Chairman PROXMIRE. In your Quartermaster, in your Finance Department, all that kind of thing, the Pay Department, so many of those jobs can be done strictly by civilians, can't they? Are they still being done by military personnel?

Mr. WOOL. One has to keep in mind that there are many quartermaster troops and even pay troops in Vietnam and all over the world, and on ships at sea. In other words, it is not the occupation involved but where that occupation is performed.

Chairman PROXMIRE. Oh, you have civilians in Vietnam, too, as well as all over the world.

Mr. WOOL. Yes, but as part of combat organizations, no. We have some civilians there, but the typical requirement is that if you have units which are part of operating forces, whether ships at sea, or combat divisions, or similar organizations which are deployable in combat areas, that these must be subject to military discipline; that these types of jobs have been, and in my judgment, always have to be military. That is the very nature of the military job.

Representative CURTIS. Would the gentleman yield on that?

Chairman PROXMIRE. Yes, indeed.

Representative CURTIS. There are company technicians right up in the aviation branch in naval air, at least where I was. We had company technicians right up in the front. This is some of the malarky

you get on this thing when to try to zero in on it. Seriously, I don't mean from you, but I mean for anyone who has been on the frontlines.

For example, in the Battle of the Bulge, all these so-called backup troops were ordered to get out of the way. They are not asked to go in and do any fighting. But when you come to discussions like this, the military say, oh well, they have to be in uniform for this or that reason.

Well, when you zero in on many of them, you find just what I have observed. That they don't at all and aren't used that way, are never intended to be used that way. This is the reason for some of your studies being done in the open, so that people can look at your working papers and your assumptions, and comment. That will make your papers a lot better.

Believe me, this business of squirreling them away and not letting anyone look at them, so we will never know what your assumptions are makes it very difficult to work in this kind of atmosphere and to come up with a good program.

I am sorry, Mr. Chairman.

Chairman PROXMIRE. As I said, I am through and I am about to yield to Congressman Rumsfeld and then I am going to have to leave. Before I do that, I want to ask unanimous consent for a tremendously competent monograph, quite a long one by Professor Weidenbaum, which we heard from yesterday, be put in the record.

I would also like to ask Professor Schelling to supply the answer to this question for the record. I understand you chaired a seminar of a group of scholars from Harvard and a group of other universities in Washington, D.C., to discuss the Selective Service System and alternatives to it. I further understand that your group has made an evaluation. Will you give us a copy of this evaluation, the fruits of your efforts?

Mr. SCHELLING. Indeed, with pleasure, when it is finished.

(The evaluation referred to was subsequently supplied and appears on p. 357.)

Chairman PROXMIRE. Fine. I would like to say that you gentlemen have done, I think, a wonderful job.

I am going to yield the chair to Congressman Curtis; unfortunately, I have another engagement right now.

You have not only been most articulate and interesting, you have also been mighty patient. It is a late hour. I hope you don't have a plane to catch.

Representative CURTIS. Could I join in those sentiments and particularly to you, Mr. Wool, because I have directed a lot of questions to you, and seemingly in a critical way. I have been deeply appreciative.

Chairman PROXMIRE. I am most impressed by all of these gentlemen.

Representative CURTIS. I have no further questions. I will turn it over to Congressman Rumsfeld.

Representative RUMSFELD. To clarify a response, Mr. Wool, that you gave to Senator Proxmire, you said in answer to this question about risk of the proposals that are being discussed here, you said there would be no risk other than cost. You didn't mean that. You don't suggest that cost is to be equated with risk. You were just saying there is no risk but there is the cost factor; is that right?

Mr. WOOL. Yes, the cost in the sense that if one were to say let us experiment, quite apart from any pay raises on equity grounds, let us experiment with what an increased pay level would do above that level and see what happens; as you gentlemen know far better than I do, pay is something you can't experiment with on the downside. You can on the up side. And you are building in therefore the possibility of a very high pay level which would then have to be continued, and of course, the actuarial implications in terms of retirement benefits, and so forth. So there is a very grave fiscal risk.

Representative RUMSFELD. In clarifying your answer to Senator Proxmire, you said if we are taking away the authority there might be risk, but if it were not taking away any authority for the compulsory system, then there is not risk.

What sort of authority are you thinking about that might be taken away, and what sort of risks could flow from the taking away of such authority? I was a little unclear there. Are you suggesting that one of the results of such a proposal might be that for the administration to trigger in the draft it might require coming before Congress?

Mr. WOOL. At the present time, there is a legislative proposal which has certain very specific provisions. One of them is the extension of the authority to induct men into service, which expires this coming June.

Representative RUMSFELD. Right.

Mr. WOOL. Now if there is no change in that authority and related legislation, and simply an expression of sense that it would be a good thing if we could get as many volunteers as possible, all volunteers, or if there were accompanying pay legislation which increased pay, then in fact the Department of Defense with appropriate guidance from the Congress would continue its efforts to maximize its use of volunteers.

That is what they have been trying to do anyway. The only other thing we are talking about as I see it is the possibility of a major increase in pay. Maybe I misunderstand what you are talking about.

Representative RUMSFELD. No.

Mr. WOOL. So on a technical basis, the answer has to be something along the lines of what I have indicated.

Representative RUMSFELD. Dr. Oi, could you comment on Mr. Wool's discussion on the Australian situation? Is that appropriate?

Mr. OI. Yes, it is.

Representative RUMSFELD. Are there different factors?

Mr. OI. I have not examined the Australian situation. I believe he is correct. Australia has a smaller force than Canada on a per capita basis. This is due, I believe, to the hyperlabor shortage coupled with a largely immigrant population—a significant in-migration of Europeans who are not really Australians yet. If we were to reach that sort of situation of a hyperlabor shortage, I think we would have the same difficulties of staffing.

Representative RUMSFELD. Dr. Schelling, what studies do you feel could be usefully undertaken by Congress or the executive branch, assuming the ones done by the executive branch were made available to the Congress and the public, dealing with national military manpower policies? Are there specific gaps in here that from your studies

you feel need to be filled that you could pretty well pinpoint here?

Mr. SCHELLING. I mentioned one in my written statement, which is looking at the whole question of GI and veterans' benefits, particularly in the way they relate to what the States do, to see whether in terms of either equity or efficiency the whole pattern makes sense.

I particularly recommend examining where the line ought to be drawn between men in uniform and civilian employees. This has to be done sympathetically; there is a lot of habit and tradition and way of life that gets disturbed when you begin to shake up the whole system.

One could go further and perhaps distinguish more clearly between those in uniform who ought to be treated as combat available and therefore soldiers in the more traditional sense, and those that may need to be subjected to military discipline but who are not combat troops and don't need to be treated in that fashion.

If we had such a system, we might then have to raise the question which kinds of personnel can you use a draft for.

Part of this I think would require making the services slowly and patiently become much more cost conscious in the real sense. What are they wasting when they use a drafted man or an enlistee, to do the kind of work that they aren't allowed to hire civilians for?

Then a couple of other related features. It may well be that at the low rate of pay of a draftee there is a tendency to underuse machinery, in favor of manpower. There may also be, because of the underpaying of the draftees, an insufficient appreciation of what they are doing to these people when they train them and what it is worth to keep them when they have invested in their training.

If you can draft a replacement and train him irrespective of cost, you are not nearly as concerned about finding a pay system that will somehow induce the man in whom you have made a great investment to stay around. The dramatic example of this at the officer level is the Air Force's problem of keeping pilots with airline wages what they are.

With respect to reenlistment, it ought to be recognized that when the Army has trained a man so he can earn perhaps higher wages outside than he used to be able to, it is going to cost more to keep him, and even though he has enjoyed a lucky windfall, still it is bad economics not to keep these people.

Just a final point, in view of what Senator Proxmire said about duty, honor, and service. It seems to me that a man doesn't have to have less loyalty to his country to care about how he is paid, particularly in relation to how people are paid when they don't get drafted. When we turn not to draftees but to reenlistees, it is going to be hard for a man to explain to his wife why they should plan to raise a family on substandard wages just because he likes Army life.

Representative RUMSFELD. You responded to Senator Proxmire that you would be happy to supply any evaluations that your group comes up with to the committee. In that, will you give some clue as to what you would propose if you were to devise an ideal Selective Service System and an array of military manpower policies?

Mr. SCHELLING. I can't promise that because it depends on whether we can reach enough unanimity in the group to present a single recommendation. I hope we can. It will probably be a compromise. But

we shall try, in addition to sorting out the issues as we see them and settling such issues as we can, to reach some recommendation.

Representative RUMSFELD. Very good.

Mr. Chairman, I have no other questions.

Representative CURTIS. Again, I thank all of you for this very helpful testimony.

This adjourns the hearings. There will be certain days during which the record will be kept open for any material that any of you would like to supply that would be helpful to the committee, and that will be made part of the record.

With that, the committee stands adjourned.

(Whereupon, at 4:55 p.m., the committee adjourned, subject to the call of the Chair.)

(The following letter and statement are made part of the record pursuant to the closing remarks of the chairman:)

NATIONAL ASSOCIATION OF MANUFACTURERS,
Washington, D.C., May 4, 1967.

HON. WILLIAM E. PROXMIRE,
Chairman, Joint Economic Committee,
New Senate Office Building, Washington, D.C.

DEAR SENATOR PROXMIRE: In accordance with discussions with members of your staff, I am enclosing a brief NAM statement which we hope you will be able to include in the record of your current hearings on the economic effects of the Vietnam War.

Many thanks.
Sincerely,

GENE HARDY.

STATEMENT BY THE NATIONAL ASSOCIATION OF MANUFACTURERS ON CONTINGENCY PLANNING FOR THE TERMINATION OR DE-ESCALATION OF THE VIETNAM CONFLICT*

The National Association of Manufacturers appreciates this opportunity of expressing its views on advance planning for government action at the time of termination, or substantial de-escalation, of the present military action in Southeast Asia. We believe that we have some thoughts to contribute that may be helpful as you contemplate this question.

A few general comments may be in order at the start. First, it is certainly not too early to think about, and plan for, the opportunities and problems that will arise when the present war is settled. But it is too early to lay out in precise terms a set of procedural steps to be set in motion at some agreed-upon signal. We do not know what our military needs will be after the end of the war, since they will depend on the terms of the settlement and other circumstances. We cannot know what the cost of subsequent support to the civilian economy of Vietnam might be at that time. We cannot know what the state of the American economy will be—whether it will be suffering from unemployment, inflation or perhaps both. We do not know how certain international economic problems—for example, the provision of monetary reserves and the mutual lowering of tariffs—will be resolved. All these unanswered questions have a bearing on what can and should be done when the Vietnam War is de-escalated.

Still speaking in general terms, it is our belief that the problem of adjustment at a lower level of defense expenditures will be a comparatively minor one. There are several reasons for that conclusion. The level of defense expenditures, in relation to the size of the economy, has risen much less during the Vietnam War than in previous similar incidents. During the Korean War, the increase in defense purchases as a percent of gross national product was from about 5% just before the war to almost 14% at its peak three years later. Thus the incremental war effort demanded about 9% of the national output. By contrast, in 1967 the incremental war effort will absorb less than 2% of national output—the total share going for national defense rising from about 7.5% in 1965 to about 9% in 1967.

*Prepared for the Joint Economic Committee, Congress of the United States, May 3, 1967.

Even with a relatively much larger defense effort at the time of Korea, the problem of transition to a peacetime basis was not really serious or prolonged. The growth of gross national product was interrupted for about a year, but it did not fall more than 2% below its previous high. By the third quarter of 1954, gross product was increasing once again and soon exceeded all previous records. The unemployment rate rose to a peak of 6.1% in September 1954, but a year later it was down close to the 4% now accepted as a desirable norm. Prospects are that termination of the relatively smaller Vietnam effort should involve an even quicker and easier adjustment.

Another fact of consequence is that, even while Vietnam expenditures are still growing, we have experienced a mild economic slowdown in the first quarter of 1967. Perhaps some of the post-Vietnam adjustment has already occurred. In any case, it appears that growing defense expenditures are not a protection against a slowing down of economic activity. It seems reasonable to conclude that, by the same token, declining defense expenditures will not necessarily presage a recession.

Undoubtedly, there will be transitional economic problems for the American economy when the present conflict in Asia subsides. These will affect certain industries, certain occupations and certain localities, rather than the economy at large. The Federal Government has numerous programs for meeting such adjustment problems, whatever may be the cause that brings them about. These include manpower development and training, economic development assistance to localities, and the Labor Department programs for providing information on employment opportunities. In addition, we have seen numerous purely private efforts which have successfully met local problems. There is surely no reason to suppose that the problems of adjustment to the termination of the Vietnam War will be so different in nature, or so much larger in scope, that they cannot be handled by programs already in existence.

While most of the national and local readjustments may be readily surmounted, it is true, of course, that the reconversion period will present difficulties for individual corporations now largely engaged in production of materials and supplies for the Armed Services. Since many of these corporations are members of our Association, you may want our opinions on this subject.

To such companies, and to their communities, the wholesale termination of procurement contracts could be costly and disruptive. The NAM hopes that the principle of fair, fast and final settlement, which was successfully applied in the termination of World War II contracts, again will obtain. A specific problem of current concern is the tendency to deny profit allowances to suppliers for preparations made, and work already performed under subcontracts. In light of the increasing emphasis by the Government on firm fixed-price contracts, in which profit disallowances are most frequently encountered, the impact upon both prime contractors and subcontractors with work in progress in lower tiers could be of substantial proportions. It would seem that the higher risks under fixed-price contracts should require more equitable treatment and, when terminated at the convenience of the Government, such contracts should provide for allowance of a reasonable portion of the profit which the contractor would have earned had the contracts gone on to completion.

As far as broadgauge Government economic action is concerned, in our opinion it would be worse than useless to lay down in advance a program for "fine-tuning" the American economy when the Vietnam War ends. Our ability to forecast economic developments is limited at best. It becomes impossible when we are required to forecast the economic consequences of an event which will occur at an unknown time and under unknown circumstances. Prospects are that the transition to peacetime will not be too difficult, and by pre-planned intervention, we might make it more so rather than less.

We would urge that the thought and study you make in preparation for the end of fighting in Vietnam should be concentrated in another direction. Fine-tuning of the economy, although it seems to dominate current discussion, is not the fundamental purpose of fiscal policy. Fiscal policy is primarily the means by which concrete decisions are made as to what the Government will do and how the burden of paying for it will be distributed. The members of Congress are charged with the responsibility of embodying such decisions in legislation. The end of the Vietnam War would be an appropriate time for a reappraisal of fiscal policy from this point of view. Here are some questions you might consider: Have, or have not, past trends correctly reflected the Nation's preference as to

the way in which its resources are to be divided between government and private purposes? What future steps should be taken to ensure that patterns of Government spending and taxation do genuinely reflect the choices of the citizenry?

Some of the discussion of post-Vietnam prospects assumes that the funds released by reduction of the defense burden can best be applied to an expansion of Government non-defense programs. Such an approach might have been in order if Government spending for non-military purposes had been severely curtailed in order to make room for defense needs. Instead, the very reverse is true. We have witnessed an acceleration in the growth of non-defense spending, at exactly the same time as Vietnam spending has increased. Between fiscal 1964 and fiscal 1968, as projected in the budget, non-defense cash spending will have increased by 45%, and defense spending by 41%. In the preceding four-year period non-defense spending grew by 36% and defense spending by only 19%. Astonishingly, the expansion of the civilian expenditures of Government has been accelerated, rather than retarded, during the Vietnam War. And the increased cost of Government is due more to growth of non-defense programs than to war needs.

This pattern of spending growth does not, we believe, faithfully represent the choice of the American people as to how much of their income should be spent for them by Government. It has resulted largely from the fact that the existing taxation system provides a large annual increase in the revenues available to the Federal Government. The annual increment to Federal revenues from normal economic growth is variously estimated to amount to somewhere between \$7 billion and \$10 billion.

The almost automatic increase in revenues by this process creates the danger that we will, by an equally automatic process, find ways of spending the additional money. And the release of more than \$20 billion at the end of the Vietnam War would strengthen that tendency. The National Association of Manufacturers believes that Congressional thinking on what to do in preparation for the post-Vietnam period should address itself to that problem. And we have a specific suggestion as to how it may be approached.

Our Association believes that the revenue gain from economic growth should be largely earmarked for tax reduction. Specifically, we urge that legislation be enacted to provide a schedule of annual tax reductions over a period of years. To meet unforeseeable contingencies, a procedure should also be provided by which Congress could speed up, or temporarily arrest or reverse, the prescheduled tax reductions.

It is our conviction that such a plan would encourage fiscal trends that are more closely in line with the real desire and hopes of the American people. It would provide more leeway for the growth of the private economy, which must always be the foundation of economic growth generally. In the absence of such a program, the path of least resistance is likely to lead us toward continuation, or even acceleration, of the rapid increase in Federal spending of the past few years.

We hope that you will seriously consider this proposal in your study of measures to be undertaken in the post-Vietnam era.

ON MEETING THE NATION'S NEED FOR YOUNG MEN IN MILITARY SERVICE

Study prepared by the Institute of Politics of The John Fitzgerald Kennedy School of Government, Harvard University, Cambridge, Mass.

Many teachers in American colleges and universities have been concerned about the draft. They naturally are, not only because the draft is related to war in general and to the war in Vietnam in particular, but also because the draft raises some fundamental questions about the obligations of citizenship in a democracy and the way those obligations are divided among the citizens. Moreover, most of the students we teach, and even many of the teachers among us, are qualified by age, health, and education, to perform military service. A main feature of the present draft is that it singles out college students, and their teachers, as a group especially eligible for deferment; we are bound to be concerned with the wisdom of such an arrangement.

In January of this year several of us on the Harvard faculty, all holding opinions about the draft but not the same opinion, discovered that the strength of our opinions was out of proportion to our knowledge of the present selective service system, our acquaintance with alternatives, and our understanding of the issues raised by a choice among alternatives. Holding widely different views about military and foreign policy, and especially about the war in Vietnam, and differing greatly in the emphasis we attached to different consequences of the military manpower system, we wondered whether we could arrive, through patient exploration and argument, at an agreed set of recommendations. We knew we could not reach agreement on every matter of principle that would arise; we hoped we could reach agreement on a set of recommendations compatible with the differing premises from which we approached the problem.

Under the auspices of the Institute of Politics in the John F. Kennedy School of Government, a faculty study group was organized that met regularly during February, March, and April. Comprising a dozen members, mostly faculty, it brought together not only diverse opinions but diverse fields as well—economics, political science, law and philosophy. We drew on materials contained in Congressional hearings, in the report of the National Advisory Commission on Selective Service, and in other studies done both inside and outside of government. We considered many alternatives, each in the light of several criteria—fairness with respect to who serves, fairness in respect to conditions of service, efficiency in the use of the nation's manpower, efficiency in the use of military manpower within the services, the impact on race relations and on education and poverty, the impacts of alternative systems on politics and on policy-making, the satisfaction or resentment of those rejected and those selected, the technical workability of alternative systems, the uncertainty or disruption in the lives of young men, the career opportunities in military service, and matters of conscience, tradition, and law.

We still differ over the war in Vietnam and over other issues of military and foreign policy. We still differ in the importance we attach to the several criteria we examined. We still differ on a number of guesses and estimates about the results of certain policies for which the evidence is scanty. Somewhat to our surprise, we reached unanimous agreement on what we perceive to be the main policy issues.

If our recommendations carry any claim to attention, it is not because we were, as individuals, specially qualified in the subject nor because three months of collective study have made us experts on military manpower. Nor is it because we in any way represent Harvard University or any other organization, governmental or private; we represent nobody but ourselves. If our recommendations carry any weight it is precisely because we differ in our politics, in our policy preferences and in our professional interests, and yet these recommendations, after our three months of wide ranging discussion and argument, appeal to us all.

These recommendations are addressed to the question, how should the government obtain military manpower, in peace and in war, when the number of men in service is not expected to exceed five or six million men. It assumes an economy not characterized by comprehensive wartime controls. Specifically, we are talking about military manpower when the supply of eligible young men, relative to military needs, raises the question posed in the title of the Selective Service Commission's report, "Who Serves when not all Serve?".

These are our recommendations:

1. All young men whose age, mental and physical fitness, and educational attainment qualify them for military duty should be equally eligible for conscription. Nobody needs to be deferred or exempted at age 19 or 20 on grounds that his career plans and educational intentions make him too valuable a citizen to go into the Army, or make it a national interest that his, and not others', service be postponed a few years. The economic benefits of discriminating among young men are modest, and largely confined to the young men who benefit. It is even doubtful whether, in the interest of a student's education and career, the best time to do his service is after completion of college.

2. If, as should be done, specific deferment of students is abolished, or comparable postponement is made equally available to all young men, the number of men eligible will exceed the number needed by the military services. The means of determining who serves and who does not serve, within this eligible group, must be fair and non-discriminatory and must appear fair and non-discriminatory both to those who are selected and to those who are not. We know of nothing but a random process—a "lottery"—that will meet those conditions. We therefore recommend choice by lottery.

3. Military pay should be increased sufficiently to attract, in the absence of hostilities, at least two and one-half million men. There is no magic in this figure. It corresponds to what, a few years ago, was acknowledged to be the approximate "peacetime" level of the armed forces, less one or two hundred thousand that we believe might be replaced by civilian employees during the coming years. Nobody can exactly estimate the pay scale required to reach this goal; but pay scales must be set with some goal in mind, and this should be the goal. In time of hostilities the additional men needed, and any short-fall of enlistments below this goal, should be acquired through the draft, preferably by lottery.

4. We have to ask young men to do our fighting for us, involuntarily if necessary; we should not ask the same young men to pay our taxes for us. The draft should not be used as a means of shifting the financial burden of war or preparedness onto the same young men who are selected to carry the burden of risk and disrupted careers. The "cost" of attracting 2.5 or 2.75 million enlistees in peacetime is not really saved when we draft men; it is merely shifted, in the form of lower wages, from taxpayers to the men in the service. Too often the questions of fairness and discrimination are confined to the choice of who shall serve, with little attention to how we might shift some of the burdens of service from those who serve onto those who are served. Those of us who do not serve because we are too old or because we are otherwise not selected, should be careful not to use the draft as way of holding military wages down. And there is no reason to suppose that a man's sense of duty is weakened, or his morale undermined, by having his services appreciated with a decent wage. Surely the federal minimum wage is not too extravagant for a young man serving in the army in either peace or war.

5. Most of the inequity in the present pay scale for draftees could be eliminated, and reasonable pay differentials maintained among servicemen, with pay increases that would total between \$2 billion and \$3 billion per year. We recommend such increases on grounds of fairness and in the belief that a democracy with a GNP of over half a trillion dollars, and with income-tax rates lower than those prevailing before Viet Nam, has no compelling need to use conscription to keep military wages down. Official estimates of the likely cost of achieving a volunteer force of about 2.7 million men in peacetime appear to us somewhat exaggerated; pay increases on the scale we recommend should have an appreciable effect on enlistments. If so, the net cost will be reduced through reductions in training and other expenses associated with the higher turnover of drafted men.

6. Paying young men more nearly what they are worth in the civilian economy can have other benefits, through a better appreciation within the military services that drafted men are not cheap resources. An energetic and continuous effort should be made to replace uniformed men with civilian employees, male and

female, in all of those tasks in which the discipline, the traditions, and the other qualities associated with uniformed armed forces, are not essential. This may cost more; if so, we have been using the draft to save ourselves money by putting civilians in uniform.

7. The Reserves and National Guard should be considered ready, and should actually be ready, to serve in an emergency. If, however, as recent experience suggests, they are either not ready or not available for a war on the scale of the war in Vietnam, the worth of continuing the present reserve and National Guard system ought to be brought into question.

8. Military service is national service, not service to a state or locality. Eligible young men ought to be equally vulnerable to selection, no matter what state they reside in. Randomized selection should be designed to achieve this and should not be based on state quotas:

9. A lottery can be designed that, without becoming too complicated, permits a young man some freedom of choice in the year that he chooses to serve. Such freedom of choice should be equally available to all young men. One workable arrangement would be to call young men in their twenty-first year in an order of call determined by lottery, but with the lottery taking place in the young man's nineteenth year. At age nineteen a young man would have a good idea of the likelihood of his being called two years later, and could anticipate his service by electing to be drafted at age nineteen or twenty. A longer period of choice might have the unhealthful effect of inducing young men to speculate unduly on changes in the prospects for war and peace or even for changes in the draft law. Young men high in the priority of call would be on notice that two years' service probably awaited them at age twenty-one, and a strict denial of dependency exemption at age twenty-one would not then involve significant hardship. This arrangement would substantially eliminate the issue of college-student deferment: and it would benefit the college student by letting him know at age nineteen the likelihood that he would be called at twenty-one, so that he could make his own choice whether to complete college before or after military service.

10. If, contrary to what we believe best, college students are deferred and others not, college students should become, upon graduation, equally vulnerable to the draft along with younger men who are not deferred. Exceptions should be made only for medical students, officer candidates, and others whose choice of career makes them more liable to military service, not less liable, than others. If college students are not permitted—and they should not be permitted—to avoid eventual liability for military service, the supply of eligible young men will exceed the military demand for them about as much as if nobody were deferred. Thus the need remains for a randomized selection process to determine who shall serve.

11. The pay structure of the armed services should be continually rationalized to improve efficiency, to provide stronger incentives to remain in service and thus to reduce training costs and to preserve the skills created by both experience and training, to achieve the best allocations of skills and qualities among and within the services, and to avoid wasting military manpower on jobs that civilians or civilian contractors can do.

12. Increased pay, along the lines we recommend, should increase the number of men who enlist under the present physical and mental standards. There is a natural tendency, and a commendable one, for the armed services to want the highest quality personnel they can get; and with higher pay they would be able, and might be tempted, to raise standards of acceptance rather than to admit a larger number of enlistees. In order, however, to reduce reliance on the draft and to spread the opportunities for service as widely among the population as is consistent with military needs, standards of acceptance should be kept at present levels and the full effect of higher pay should be allowed to reflect itself in the number of enlistees.

13. We recommend the re-examination by the federal government of the entire structure of G.I. benefits and Veterans' pensions and preferences, state as well as federal. There is some tendency, especially because state and federal efforts are poorly coordinated, for benefits to be haphazardly related to civil service preference, to income and property taxes, and to the state a man resides in. The consequences, in both equity and economic efficiency, are not guaranteed to be favorable.

What we have is a system of partially deferred compensation, often on a contingent basis, that makes less sense altogether than each particular piece of legislation makes by itself.

Gramah Allison, Jr., Graduate School of Arts and Sciences.
 Steven L. Canby, John F. Kennedy School of Government.
 Jack W. Carlson, economist, Washington, D.C.
 John T. Dunlop, Professor of Economics.
 Charles Fried, Professor of Law.
 Robert E. Herzstein, attorney, Washington, D.C.
 Samuel P. Huntington, Professor of Government.
 Stephen A. Marglin, Assistant Professor of Economics.
 John Rawls, Professor of Philosophy.
 Gerald D. Rosenthal, Assistant Professor of Economics.
 Henry Rosovsky, Professor of Economics.
 Thomas C. Schelling, Professor of Economics.
 Lester C. Thurow, Assistant Professor of Economics.
 Robert V. Zupkis, Graduate School of Arts and Sciences.
 May 23, 1967.

JUNE 7, 1967.

HON. WILLIAM PROXMIRE,
 Chairman, Joint Economic Committee, Congress of the United States,
 Washington, D.C.

DEAR CHAIRMAN PROXMIRE: During our "Vietnam Hearings," you requested the data-evidence on Defense Department's requested and enacted New Obligational Authority as well as the major Federal tax changes since World War II. The attached Defense Department data were prepared by the Office of the Assistant Secretary of Defense (Comptroller).

The attached tax changes were prepared by the U.S. Treasury's Office of Tax Analysis.

Sincerely,

DANIEL JAMES EDWARDS,
 Fiscal and Monetary Economist, Joint Economic Committee.

DEPARTMENT OF DEFENSE

New obligational authority requested and enacted—Military functions and military assistance, fiscal years 1961–68

[In thousands of dollars]

	NOA requested of Congress	NOA enacted
FISCAL YEAR 1961		
Regular request.....	40,553,000	41,019,531
Supplemental (H. Doc. 58, Jan. 19, 1961) for—		
Increased pay costs.....	21,649	21,649
Increased readiness.....	266,900	264,900
Supplemental (H. Doc. 161, May 15, 1961) for retired pay.....	15,000	14,500
Supplemental (H. Doc. 180, May 29, 1961) for increased readiness.....	40,000	
Total, military functions.....	40,896,549	41,320,580
Military assistance.....	2,000,000	1,785,000
Total, fiscal year 1961.....	42,896,549	43,105,580
FISCAL YEAR 1962		
Regular request.....	41,809,345	
Amendments for increased readiness:		
H. Doc. 124, Mar. 28, 1961.....	1,954,000	47,804,002
H. Doc. 179, May 29, 1961.....	237,000	
H. Doc. 211, July 13, 1961.....	9,568	
S. Doc. 39, July 28, 1961.....	3,454,600	
Supplemental (H. Doc. 210, July 13, 1961) to cover fire damage to aircraft carrier USS <i>Constellation</i>	41,600	40,000
Supplemental (S. Doc. 51, Sept. 18, 1961) for contributions to "USS <i>Arizona</i> Memorial Fund".....	1,160	150
Total, military functions.....	47,506,263	47,844,152
Military assistance.....	1,885,000	1,577,000
Total, fiscal year 1962.....	49,391,263	49,421,152

New obligational authority requested and enacted—Military functions and military assistance, fiscal years 1961-68—Continued

(In thousands of dollars)

	NOA requested of Congress	NOA enacted
FISCAL YEAR 1963		
Regular request.....	49,920,000	} 49,565,525
Amendment (H. Doc. 493, July 31, 1962) for military family housing, etc.	276,730	
Supplemental (H. Doc. 514, Aug. 13, 1962) for increases in quarters allowance, readjustment payments, and temporary duty per diem.....	157,759	
Supplemental (H. Doc. 61, Feb. 7, 1963) for increases in quarters allowance, civilian pay, and temporary duty per diem.....	272,264	
Supplemental (H. Doc. 63, Feb. 11, 1963) for civilian pay increase.....	9,130	
Total, military functions.....	50,635,883	49,794,361
Military assistance.....	1,500,000	1,325,000
Total, fiscal year 1963.....	52,135,883	51,119,361
FISCAL YEAR 1964		
Regular request.....	51,280,637	} 48,918,542
Amendment (H. Doc. 120, June 6, 1963) for provisioning of civil defense shelters.....	46,900	
Supplemental (H. Doc. 203, January 21, 1964) for— Military pay increase.....	853,000	
Maintaining authorized military strengths.....	234,040	
Supplemental (H. Doc. 197, Apr. 29, 1964) for reductions in supplemental (H. Doc. 203, Jan. 21, 1964).....	-45,400	
Total, military functions.....	52,369,537	49,921,742
Military assistance.....	1,405,000	1,000,000
Total, fiscal year 1964.....	53,774,537	50,921,742
FISCAL YEAR 1965		
Regular request.....	49,708,000	} 48,433,074
Supplemental (H. Doc. 98, Mar. 2, 1965) for military and civilian pay increases.....	230,394	
Supplemental (H. Doc. 157, May 4, 1965) for Southeast Asia.....	700,000	
Total, military functions.....	50,638,394	49,363,468
Military assistance.....	1,055,000	1,130,000
Total, fiscal year 1965.....	51,693,394	50,493,468
FISCAL YEAR 1966		
Regular request.....	47,619,557	} 49,300,412
Amendment (S. Doc. 45, Aug. 4, 1965) for Southeast Asia.....	1,700,000	
Supplemental (H. Doc. 362, Jan. 19, 1966) for Southeast Asia.....	12,345,719	
Supplemental (H. Doc. 405, Mar. 8, 1966) for military and civilian pay increases.....	863,521	
Total, military functions.....	62,528,797	62,509,652
Military assistance.....	1,545,000	1,023,079
Total, fiscal year 1966.....	64,073,797	63,532,731
FISCAL YEAR 1967		
Regular request.....	58,912,700	} 59,148,142
Supplemental (H. Doc. 42, Jan. 24, 1967) for Southeast Asia.....	12,275,870	
Supplemental (H. Doc. 83, Mar. 13, 1967) for increases in civilian pay, in salaries of ungraded employees, and in medical service benefits and for homeowners assistance.....	237,000	
Supplemental (H. Doc. 91, Mar. 23, 1967) for military and civilian pay increases.....	364,130	
Total, military functions.....	71,789,700	
Military assistance.....	917,000	782,000
Total, fiscal year 1967.....	72,706,700	72,782,000
FISCAL YEAR 1968		
Regular request.....	74,632,000	} 74,674,000
Proposed for separate transmittal for— Quarters and dislocation allowance.....	24,000	
Federal employee status for civilian technicians of the Army and Air Force National Guardsmen.....	18,000	
Total, military functions.....	74,674,000	74,674,000
Military assistance.....	596,000	596,000
Total, fiscal year 1968.....	75,270,000	75,270,000

¹ Includes \$24,556,571 authority utilized under sec. 3732, R.S.

Historical defense expenditures fiscal year and calendar year 1950-68

[Millions of dollars]

Year	Fiscal year-basis				Calendar year basis-actual
	Projection in President's budget	Projection in mid-year budget review	Projection in subsequent year budget	Actual per budget document	
1950.....	13,291	12,300	12,785	11,889	12,807
1951.....	12,873	0	19,364	19,772	29,439
1952.....	39,617	0	39,000	38,967	42,148
1953.....	50,000	0	43,400	43,610	43,015
1954.....	1 45,600	41,700	41,600	40,336	36,807
1955.....	41,850	38,800	37,050	37,824	37,664
1956.....	37,075	36,150	36,893	38,492	39,102
1957.....	37,797	35,500	38,600	40,791	41,904
1958.....	40,600	40,200	41,061	41,249	42,612
1959.....	41,979	43,000	43,112	43,573	43,492
1960.....	42,795	42,745	42,745	42,824	42,939
1961.....	42,745	43,250	43,200	44,676	45,478
1962.....	44,660	48,350	48,250	48,205	50,142
1963.....	49,700	49,700	50,050	49,973	50,178
1964.....	52,450	0	53,200	51,245	49,305
1965.....	51,200	49,800	49,300	47,401	50,267
1966.....	49,000	0	54,200	55,377	61,992
1967.....	58,300	0	67,950		
1968.....	73,100				

1 Revised (Eisenhower) budget projection was \$43,200.

NOTE.—Fiscal year 1950 through fiscal year 1954 exclude military assistance since the budget document for these years showed only total "mutual security" expenditures which included both military and economic assistance.

Revenue¹ effect of major tax actions since World War II

[In millions of dollars]

Revenue Act of 1945.....	-5,925
Revenue Act of 1948.....	-4,988
Revenue Act of 1950.....	+4,601
Excess Profits Tax Act of 1950.....	+3,500
Revenue Act of 1951.....	+5,438
Revenue Act of 1954:	
Individual income tax.....	-3,000
Repeal of excess profits tax.....	-2,000
Excise Tax Reduction Act of 1954.....	-1,021
Internal Revenue Code of 1954.....	-1,363
Fiscal year 1956:	
Public Law 466 (Apr. 2, 1956) gas refunds to farmers.....	-90
Public Law 796 (July 25, 1956) exempt foreign travel.....	-17
Public Law 1015 (Aug. 7, 1956) exempt transportation of persons (35-60 cents).....	-6
Public Law 1010 (Aug. 6, 1956) exempt admission 50 cents to 90 cents.....	-60
Public Law 429 (Mar. 13, 1956) tax on life insurance companies.....	+51
Fiscal year 1957: Numerous but no revenue effect known.	
Fiscal year 1958:	
Public Law 85-475 (June 30, 1958)	
Transportation of property.....	-487
Transportation of coal.....	
Transportation oil by pipeline.....	-40
Public Law 85-866 (Sept. 2, 1958) small business.....	-260
Public Law 85-859 (Sept. 2, 1958)	
Admission.....	-50
Club dues.....	
Fiscal year 1959: Public Law 86-69 (June 30, 1959) life insurance.....	+180
Fiscal year 1960: Public Law 86-422 (Apr. 8, 1960) cabaret—from 20 percent to 10 percent.....	-20

Revenue¹ effect of major tax actions since World War II—Continued

[In millions of dollars]

Fiscal year 1961: Nothing with large tax effect.

Fiscal year 1962:

Depreciation guidelines (Administrative sections).....	-1,300
Revenue Act of 1962:	
Investment credit.....	-1,020
Structural changes.....	+850
Revenue Act of 1964.....	-11,545
Excise Tax Reduction Act of 1965.....	-4,676
Tax Adjustment Act of 1966:	
Fiscal year 1966.....	+1,130
Fiscal year 1967.....	+4,800

¹ As estimated at time of legislation.

Source: Office of Tax Analysis, U.S. Treasury.