

412

90th Congress }  
2d Session }

JOINT COMMITTEE PRINT

FEDERAL PROGRAMS FOR THE  
DEVELOPMENT OF HUMAN RESOURCES

A COMPENDIUM OF PAPERS

SUBMITTED TO THE

SUBCOMMITTEE ON ECONOMIC PROGRESS

OF THE

JOINT ECONOMIC COMMITTEE  
CONGRESS OF THE UNITED STATES

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VOLUME 1

**Part I. Program Appraisal, National Goals,  
Program Management and Coordination**

**Part II. Manpower and Education**



Printed for the use of the Joint Economic Committee

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U.S. GOVERNMENT PRINTING OFFICE

88-744 O

WASHINGTON : 1968

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## LETTERS OF TRANSMITTAL

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MARCH 7, 1968.

*To the Members of the Joint Economic Committee:*

Transmitted herewith for the use of the members of the Joint Economic Committee and other Members of Congress is a compendium of papers prepared for the Subcommittee on Economic Progress on "Federal Programs for the Development of Human Resources." The papers were prepared by scholars at the request of Representative Wright Patman, chairman of the subcommittee, and are intended to contribute to improvement in the allocation of resources in the human resources field.

The views expressed in these volumes do not necessarily reflect the views of the Joint Economic Committee, the Subcommittee on Economic Progress, or the individual members thereof.

WILLIAM PROXMIRE,  
*Chairman, Joint Economic Committee.*

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MARCH 6, 1968.

HON. WILLIAM PROXMIRE,  
*Chairman, Joint Economic Committee,  
Congress of the United States,  
Washington, D.C.*

DEAR MR. CHAIRMAN: Transmitted herewith is a compendium of papers on "Federal Programs for the Development of Human Resources." The compendium carries forward an investigation by the Subcommittee on Economic Progress into the broad area of human resource programs of the Federal Government. This is a sequel to the subcommittee's earlier study of the human resource programs of the Federal Government which appeared in a three-volume compilation in December of 1966. It is part of the subcommittee's long-term inquiry into the very important question involving our Nation's economic and social objectives, coordination of programs, and analysis of their effects on consumption, investment, and economic growth.

The subcommittee is grateful to the contributors and wishes to express its appreciation to them for making available their expert counsel. They have given generously of their time and energy to provide the latest available information and professional perspective on this important subject. The major work in planning and compiling this compendium was done by George Iden of the committee staff, with the advice and suggestions of other members of the committee's staff. Mr. I. M. Labovitz, senior specialist in the Legislative Reference Service of the Library of Congress, also gave valued advice and suggestions.

The views expressed in these volumes do not necessarily reflect the

views of the Joint Economic Committee, the Subcommittee on Economic Progress, the individual members thereof, or the committee staff.

WRIGHT PATMAN,  
*Chairman, Subcommittee on Economic Progress.*

MARCH 4, 1968.

HON. WRIGHT PATMAN,  
*Chairman, Subcommittee on Economic Progress, Joint Economic Committee, Congress of the United States, Washington, D.C.*

DEAR MR. CHAIRMAN: Transmitted herewith is a compendium of expert opinion on "Federal Programs for the Development of Human Resources." This follows up the earlier compilation of the Subcommittee on Economic Progress and constitutes part of the subcommittee's broad inquiry into the economic impacts of human resource investment, particularly that of the Federal Government.

This compendium of papers by scholars is intended to help clarify national goals and better identify the share of the Nation's resources that is being devoted to this sector of the economy, as well as the shares going to the various functions within the human resource category. It is designed to assist in developing much needed knowledge about the effects of programs on particular groups, as well as on the economy in general, and to compare the effectiveness of various means of attaining human resource objectives.

The papers deal with program appraisal in the field of human resource development. Those in Part I explore national human resource goals and appropriate criteria for evaluating human resource programs. In the next four parts, the adequacy and effectiveness of programs are studied in the functional categories of education and manpower policy; income maintenance and family support; health care and improvement; and housing and man's environment. Particular emphasis is directed to the problems of the poverty stricken, who also suffer more from ill health, inadequate housing, a polluted environment, and incomplete development of their own capabilities.

The experts who prepared these studies have given generously of their time and energy to provide the latest available information and professional perspective on this important subject. The major work in planning and compiling this compendium was done by George Iden of the committee staff, with the advice and suggestions of other members of the committee's professional staff. Mr. I. M. Labovitz, senior specialist in the Legislative Reference Service of the Library of Congress, also gave valued advice and suggestions.

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JOHN R. STARK,  
*Executive Director.*



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# FEDERAL PROGRAMS FOR THE DEVELOPMENT OF HUMAN RESOURCES

*A compendium of papers submitted to the Subcommittee on Economic Progress of the Joint Economic Committee, Congress of the United States, January 1968*

## INTRODUCTION

Following up its recent review of human resource programs of the Federal Government, the Subcommittee on Economic Progress invited a number of scholars to prepare analytical papers concerning the field of human resources and the role of public policy. In December 1966, a 3-volume compilation of information on "human resource programs," supplied by the Government agencies, was published by the subcommittee. Included within the scope of that study were programs which the various agencies identified as primarily concerned with the support or development of people in the United States. The initial report achieved gains in assembling, classifying, measuring, and describing the many programs, but left for future investigation the analysis of concepts, goals, efficiency and broad effects of Government programs—needs which prompted this compendium. The subcommittee felt that the linking of program objectives with national goals, the coordination and administration of programs, and the analysis of their combined impact on consumption, investment, equity, and growth had received too little attention.

Given the relatively early stages in the development of this field of inquiry, the subcommittee intended that contributors would have complete freedom to select and develop their topics as they saw fit. It was by design, therefore, rather than by accident that the papers follow no close-knit pattern of organization and that they vary in length and style of presentation.

A discussion paper or prospectus was prepared and sent to the contributors together with the letter of invitation from Chairman Patman. The discussion paper raised a number of questions and set forth a tentative outline for the compendium—but it was not intended as a constraint on the authors.

The responses on the part of the authors were most generous, and the subcommittee gratefully acknowledges their valuable contributions.

The compendium, as planned and here presented, consists of five parts: Part I deals with a general assessment of human resources and human resources policies; Part II with education and manpower policies; Part III with income maintenance and family support; Part IV with health care and improvement; and Part V with housing and environmental improvement. A particular Government program may affect the pursuit of goals in one or more of the above parts. Indeed, the programs tend to be interrelated in their effects on the pursuit of

various goals and on particular individuals or groups. They may be complementary; but they may have conflicting objectives and work at cross-purposes. Moreover, they are interrelated in the sense that a decision to devote resources to one program implies a decision not to do something else; for in an economy operating near full employment and with the budget in substantial deficit, the key issue is not whether a program is "good," but rather which programs make the best use of the Nation's scarce resources.

The papers in Part I are concerned with program appraisal and management. The authors consider such matters as (1) do we have articulated national goals; (2) what are or should be these goals; (3) what sort of machinery is needed to articulate and promulgate national goals; and (4) what are the implications of a change in national priorities, for example, stemming from a decline in defense expenditures?

A related subject is the criteria and techniques to be applied in assessing a human resource program or project. In this part there is discussion of the role and present status of the "Planning-Programing-Budgeting System,"<sup>1</sup> as well as such matters as the relative importance of investment and consumption aspects of the programs, or, efficiency compared to redistributive effects.

The output-generating effects of spending on human resources is developed with particular emphasis on the contribution of education and experience to economic growth. It is pointed out that the evidence that education has contributed to growth does not imply that education should necessarily be stressed for present and future growth. Some criteria for choosing among investment alternatives are presented.

Information is presented concerning the current and historical allocation of spending in the major program areas of health, education, training, and income maintenance. Such questions are grappled with as the share of resources (1) going to the poor, or to youth versus the aged, and (2) channeled by means of income transfers versus direct services.

Part II follows the same philosophy of inquiry but emphasizes manpower and education programs. The questions considered include whether there is an overall policy or a series of rather unrelated sub-policies. The present state of program evaluation is discussed, both in this country and in Western Europe. Data needs are cited concerning the universe of need, and the experience of workers—both those who have taken part in the program and those who have not. The extent and potential usefulness of voluntary manpower are explored, suggesting a comparatively untapped resource.

The economics of geographic labor mobility is analyzed in two of the papers. How rational and efficient is the present process of mobility? Should public resources be devoted to either increasing the amount of movement or to making existing movement more rational and efficient?

Two of the papers deal with the financing of education, considering such issues as the role of the market and of government grants and loans.

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<sup>1</sup> For a more detailed treatment of "PPBS," see "The Planning-Programing-Budgeting System: Progress and Potentials," hearings and report by the Subcommittee on Economy in Government of the Joint Economic Committee, 1967.

Some special but extremely important problems are considered, such as the education of children from disadvantaged backgrounds, and the lack of education and training for Negroes and Indians. Estimates of the capital deficiency in Negro human capital are presented, as well as the returns to education and experience for whites and nonwhites. Educational goals are presented based on the required education levels of nonwhites for general labor income parity with whites.

Part III is concerned with income maintenance and family support. The emphasis here is on income maintenance problems of the poor and on the interrelationships of programs designed to assist the poor. The present system of categorical assistance (especially public assistance) is described and some of its limitations are pointed out. Suggested criteria for an improved and reoriented public assistance program are presented.

The economic status of the elderly is analyzed, including the level and sources of their incomes, past trends in their incomes, and the role of the national old-age, survivors, disability, and health insurance system. For an extensive treatment of issues and alternatives in old-age income assurance, the reader is referred to a symposium by that title published by the Fiscal Policy Subcommittee in 1968.

Also in part III, the resolve of the Nation to eliminate or rapidly reduce poverty is called into question—as well as the most appropriate mechanisms for distributing income and services to the poor. The role of philosophy or ideology is emphasized as a key consideration in the extent and nature of the programs. This discussion includes such issues as the relationship of the individual to the community and vice versa. In addition to purely humane considerations, several of the papers (in different parts of the compendium) point out that children born in extreme poverty quickly become retarded in ways which prevent them from ever playing a full and productive role in the community.

The objectives of unemployment insurance are discussed; for example, its role in preventing the unemployed from falling into grinding poverty and the preservation of the skills of unemployed workers.

Among the proposed changes in the present system of income maintenance are (1) making need the sole criterion for financial aid, (2) establishing minimum standards for aid, (3) instituting “negative taxation,” and (4) making government an “employer of last resort.” One of the present schemes for providing intensive services to poor children—Headstart—is analyzed in some detail.

Part IV is on health care and improvement. Macroeconomic topics are dealt with first, concerning such matters as the contribution of health services to economic growth and consumer well-being; the cost of illness to society and principles for minimizing that cost.

Preliminary to an understanding of the role of public policy in the field of health is an understanding of the medical industry—the determinants of the supply and demand for health services, and the operating structure of the industry. Particular emphasis is focused on the economics of hospital services—trends in demand, and the role and limitations of the market. Alternative public reimbursement schemes are analyzed to assess their effects on the efficiency and costs of

hospital services. The part ends with a discussion of health sector planning needs and the use of an econometric model for planning.

Part V is concerned with housing and the quality of man's environment.<sup>2</sup> The considered topics include the consistency or inconsistency of national programs as they affect housing goals; the effects of housing quality and location on efficient employment and productivity; the adequacy of the present housing stock, as well as recent and prospective progress. Specific policies and programs are suggested for housing and the linking of housing and jobs.

Three of the papers emphasize the problems of pollution, considering quality and location on efficient employment and productivity; the stated, the interactions of technology and the environment, and man and his environment. There is discussion of the effects of pollution on man's health and productivity and of the benefits and costs of pollution control. Complex matters relating to measurement, technique and policy implementation for pollution control are considered. The problems of "market failure" are explained and alternatives suggested for minimizing or controlling pollution.

[The prospectus, which was sent to potential contributors, follows:]

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<sup>2</sup> The spacial and community aspects of man's environment receive particular attention in the compendium and hearings on "Urban America: Goals and Problems" by the Subcommittee on Urban Affairs of the Joint Economic Committee, 1967.

90th Congress }  
1st Session }

JOINT COMMITTEE PRINT

FEDERAL PROGRAMS FOR THE  
DEVELOPMENT OF HUMAN RESOURCES:  
QUESTIONS AND OUTLINE FOR A COMPENDIUM  
OF PAPERS PROVIDING AN ECONOMIC ANALYSIS

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OF THE

JOINT ECONOMIC COMMITTEE  
CONGRESS OF THE UNITED STATES





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# FEDERAL PROGRAMS FOR THE DEVELOPMENT OF HUMAN RESOURCES: QUESTIONS AND OUTLINE FOR A COMPENDIUM OF PAPERS PROVIDING AN ECONOMIC ANALYSIS

## INTRODUCTION

This outline for a compendium of papers is designed to carry forward the investigation by the Subcommittee on Economic Progress into the broad area of human resource programs of the Federal Government and their relationship to programs in the private sector. The subcommittee believes that in view of the increased role of the Federal Government in the human resource field, it is necessary to define and evaluate the economic aspects of the Government's programs and to clarify fundamental issues and concepts.

While analytical work has been done on the subject of investment in physical capital, similar study evaluating investments in people is barely beginning. It seems probable that such discrepancies in economic knowledge have surely affected decisions on the Nation's priorities and the allocation of resources. However, there is a growing body of evidence to the effect that yields from investment in people are as great if not greater than investments in machines and physical equipment.

The reasons that Federal programs for the development of human resources are needed are the same reasons that the programs themselves are difficult to analyze. First, many of the programs have substantial external effects, or in other words, their benefits are not limited to the primary participants. Second, many tend to improve resource mobility and raise market efficiency generally. Third, they often involve strong noneconomic considerations of equity and income distribution.

To what extent can economic calculus be applied to the area of human resource conservation and development? What are our national human resource objectives? Are existing programs effective in promoting these broad objectives? Which criteria are relevant in program evaluation? Can existing results be obtained more efficiently by alternative means? How can the decisionmaking process be improved? Can the Federal budget be organized more effectively? Is longer run budget planning feasible? How should "returns" and "costs" be conceptualized and to what extent can they be measured? What are the marginal net returns from resources devoted to human resource conservation and development programs, and how do these returns compare with those stemming from investment in physical capital?

The subcommittee hopes to give participants in this compendium an opportunity to look at where the United States is, where it is going, and how it can proceed efficiently in the area of human resource development. It is hoped that the contributors in so doing will provide perspective useful to Congress and will provide background materials for further study and hearings.

The following comments are not designed to prescribe or limit discussion, but rather to give an indication of some of the subcommittee's concerns in this field.

#### BACKGROUND <sup>1</sup>

The subcommittee has completed one phase of its study of "Federal Programs for the Development of Human Resources." The study was undertaken to provide policymakers with systematic information on the extent of the jobs to be done, the availability of resources, the costs of various alternatives, and probable effects of the programs on the economy. The intent of our first phase was to classify and quantify the many Government programs directly affecting human resources, to anticipate the scope of the tasks to be accomplished, and to estimate the probable size of the public and private programs in the next 5 years. In addition, an initial attempt was made to assess the economic impact of the programs.

Included within the scope of the study were programs which the various departments and agencies, in response to a questionnaire from the subcommittee in September 1965, identified as primarily concerned with the support or development of people in the United States. Major categories identified in the report encompassed programs for environmental improvement, education and training, health care and improvements and income maintenance and family support. The staff analysis contained in volume I focused on the size and effect of expenditures in each of these functional categories. The application of cost-benefit analysis to human resources programs, as well as the significance of the planning-programing-budgeting system, was also discussed.

Federal Government expenditures for human resources programs, as defined for purposes of the survey,<sup>2</sup> totaled approximately \$43.6 billion in fiscal 1965. This magnitude accounted for approximately 37 percent of total Federal expenditures for that year on a national income accounts basis. More than half of these expenditures were made by the Department of Health, Education, and Welfare, or \$23.1 billion. Old-age, survivors, and disability insurance payments alone accounted for \$17 billion.

The staff analysis of part I gives some perspective to the estimates of total expenditures by examining the historical breakdown between public and private spending and between Federal as opposed to State and local spending. While total expenditures for health, education, social insurance, and welfare in the United States have increased in both absolute and percentage terms, relative to gross national product, the distribution between public and private spending was approximately the same in 1966 as in 1950, or about two-thirds and one-third. However, the distribution of expenditures varied as among program categories. For example, in the case of income maintenance and welfare, public programs accounted for at least 85 percent of total public and private spending for each year for which data are available

<sup>1</sup> The Joint Economic Committee has been actively concerned with problems relating to human resources for almost two decades. A listing of related reports and hearings may be found on p. 9.

<sup>2</sup> In the survey, human resources programs were broadly defined. The questionnaire stated that "The test for inclusion is that the programs are directed primarily toward maintenance or development of people in the United States or, alternatively, have as a secondary effect a substantial impact on the development of human resources." Inquiry Relating to Human Resource Programs, Subcommittee on Economic Progress of the Joint Economic Committee, 1965.

from 1950 through 1966.<sup>3</sup> In contrast, public expenditures for health and medical care amounted to only about one-quarter of the total.<sup>4</sup>

Within the public sector, the distribution of spending for human resources programs has shifted significantly. Between fiscal 1950 and fiscal 1966, the share accounted for by the Federal Government shifted from 43.5 to 53.4 percent, while the share accounted for by State and local governments fell from 56.5 to 46.5 percent.<sup>5</sup>

The initial report achieved gains in assembling, classifying, measuring, and describing the many programs, but left for future investigation the difficult tasks of refining the economic concepts that are dealt with, assessing economic effects of governmental programs, and projecting future requirements. As was pointed out in the report, it "does not offer a definitive analysis and systematic evaluation of the human resources programs of the U.S. Government. It provides, rather, a convenient compilation of pertinent materials that outlines the extent and contours of the area to be explored, indicates roughly the numbers of people affected by selected programs and the ways they are affected, and may serve as a starting point for future investigations." It serves mainly to suggest avenues for exploration and to demonstrate the need for better analysis in this field.

The analytical tasks remain largely uncharted. The responses of the Government agencies suggested diverse objectives and significant difficulty in conceptualizing or measuring the effectiveness of their programs. Moreover, the responses indicated that the agencies had not succeeded in measuring the scale and range of needs in their respective fields. These conditions make it very difficult to gage current efforts against reasonable requirements, or to assess results against potential achievement.

The Subcommittee on Economic Progress in this compendium and the hearings to follow is seeking new aids in decisionmaking in the important field of human resource development. The growing emphasis and the massive resources being devoted to this area require new paths of thinking and new analytical tools. It seems imperative that technical experts develop the capacity to look across the traditional boundaries of their specialties. For example, health and housing experts need to work in close cooperation with economists to determine the significant economic side effects of their programs. What are the interdependent effects? What are the alternative costs and methods of expanding health benefits or more adequate aid to dependent children? What are the implications of not expanding these particular programs? And what increased contribution can the private sector make?

## COMPENDIUM CONTENT

PART I of the compendium will be devoted to a general assessment of the development of human resources in the American economy. First, the subcommittee would welcome critical comments and suggestions concerning the recently completed report on "*Federal Programs for the Development of Human Resources*." In the light of the responses received, can the objectives be more sharply defined?

<sup>3</sup> In the category of "income maintenance" are included expenditures under organized income maintenance and welfare programs in the private sector—specifically private employee benefit plans and organized philanthropy but not individual annuities.

<sup>4</sup> *Federal Programs for the Development of Human Resources*, vol. I, table 1, pp. 8 and 10. The data came from Ida C. Merriam, "Social Welfare Expenditures, 1965-66," *Social Security Bulletin*, December 1966, pp. 9-21.

<sup>5</sup> *Federal Programs for the Development of Human Resources*, vol. I, table 2, p. 15.

What is the meaning of the phrases "human resources" and "investment in people"? The subcommittee's questionnaire to the Government agencies indicated that the test for inclusion in the category of human resource programs is "that the programs are directed primarily toward the maintenance or development of people in the United States or, alternatively, have as a secondary effect a substantial impact on the development of our human resources."<sup>6</sup> The review of the materials supplied by the departments and agencies used four major program categories, based on their program function: (1) environmental improvement programs; (2) education and training programs; (3) health care and improvement programs; and (4) income maintenance and family support programs (p. 27). However, it was recognized at the outset that some other system of definition and classification might be preferable for some purposes.

The term "development of human resources" as used in this part, is broader than is usually implied by such phrases as "investment in human capital," which is limited to the "activities that influence future real income through the embedding of resources in people."<sup>7</sup> Resources may also be "embedded in people" to prevent socially negative results.

What are the national goals in the area of human resource development and how are these goals related to other national goals, such as price stability, economic growth, and equality of opportunity? The goals should be put in the perspective of the availability of resources. For example, given other objectives, is it possible to "overinvest" in education, or in health and medical care services? What are some possible time paths for achieving specified goals, given the Nation's potential for economic growth?

What progress has been made in human resource development and how can progress in this area be measured? What has been the growth in the stock of "human capital"? What have been the flows of education, training, and health care and improvement contributing to this stock? What are the differences between the flows of resources into this form of investment measured in constant prices contrasted with current prices? What are the resource bottlenecks?

How can efficiency be achieved in allocating resources among programs? How can priorities be established, and what are the tradeoffs? What alternative methods are there, and how can such techniques as program planning and budgeting assist in the decision-making process? What sorts of tasks can best be accomplished by the private sector? What are the effects of program financing on resource allocation and growth?

How are, or should, public and private institutions be designed to promote human resource development? What is the process by which an idea in the area of social innovation is financed and put into practice? Are the motivations of the parties involved such that different groups work at cross purposes? For example, many programs involve Federal, State and local governments and the private sector. In such circumstances, problems of defining and harmonizing diverse objectives may be greatly compounded, and inconsistencies may appear in the formulation, organization, and administration of interrelated programs.

<sup>6</sup> *Federal Programs for the Development of Human Resources*, p. 105.

<sup>7</sup> Gary S. Becker, "Investment in Human Capital; A Theoretical Analysis," *Journal of Political Economy*, Supplement; Oct. 1, 1962, p. 9.

There will be five parts to the compendium. After the general reconnaissance of part I, part II will be concerned with education and training needs and programs, part III with income maintenance and family support, part IV with health care and improvement, and part V with environmental improvement.

PART II of the compendium will provide for a more detailed examination of programs in the area of education, training, and the matching of jobs and people. Although it did not begin suddenly, a new era in employment policy has developed. Increasingly, attention is turning from the quantity of jobs to the quality of economic opportunity. Education and manpower programs are now in operation, designed to aid not only in matching men and work, but in upgrading the quality of the labor force. Manpower policy stresses more than simply providing a job. It focuses on the opportunities that the job offers for self development. Federal policies for promoting full employment are focusing not only the need for creating and maintaining conditions favorable for employment opportunities and with promoting maximum employment, but also on the full development of human potential. Manpower policies are an essential instrument of full employment policy at the present time.

The first problem raised is that of establishing an inventory of education and training needs which are not now being met. How large are the groups who are functioning below their potential because of unemployment, underemployment, and nonparticipation in the labor force for reasons of inadequate preparation or discrimination? What are the real costs to society of these conditions? What is the size of the investment required and how long will it take to correct these deficiencies? What would be the costs and returns of corrective programs?

How can the design of programs for meeting education and training needs be improved? What are the public and private roles? From the standpoint of economic growth and efficiency, what is the relative importance of vocational and job-related training on the one hand and general education on the other? What is the role of military training and education? Does the present structure of Government programs correspond to this evaluation? Are there significant gaps in our system of training? To what extent and how efficiently can program gaps be met by expanding existing programs, or introducing such proposals as (1) Government guarantee of training opportunities, (2) business tax incentives for retraining the structurally unemployed, (3) wage subsidies for handicapped workers, and (4) the role of the Government as an employer?

What are the economic effects of education, training, and mobility programs? What are the effects of selected types of programs on income distribution and on economic efficiency? What are the "spillover" or "external effects" of these programs in regard to the local community and the Nation? How do these programs affect economic growth? Can they raise "market efficiency" and thereby improve the tradeoff between lowering the unemployment rate and maintaining price stability? How significantly did retraining contribute to the decline in unemployment after 1963? What is required to reduce the unemployment rate from its present level to 3½ and then 3 percent?

PART III is concerned with the economics of income maintenance and family support.<sup>8</sup> How can these programs be meaningfully categorized? Some are based on insurance principles and the benefits are considered "earned," while the benefits of others are based primarily on need, whether demonstrated or presumptive. Need is not a necessary requirement for receipt of social insurance payments; however, the meeting of economic hardship is a major objective of the programs. On the other hand, public assistance payments are based almost entirely on specific need attributes.

To what extent do income maintenance and family support programs represent an investment and to what extent do they contribute to current consumption without adding to potential future levels of output? Do income transfers promote economic efficiency and growth? To what extent do they promote economic stability? Does the additional security provided make workers more or less productive? Are there some types of payments which impede economic growth and resource mobility while others raise future national economic potential? What are the results if too little or too much is spent for income maintenance and family support?

What are the debilitating effects of poverty on the economy? For example, children who grow up in the midst of poverty often do not acquire the training, attitudes, and opportunities that will enable them to be productive members of society when they reach maturity. How many children are in this category? What are reasonable assumptions about the implication of growing up in poverty on their lifetime earnings, their economic returns to the community, and their net economic contribution to Government?

What is the resource gap between present incomes of the poor and some reasonably adequate standard? How acute as well as how large is the variation among States and among different types of communities in assistance levels? Are there persons whom the averages hide, and who indeed have grossly inadequate resources for food and clothing?

If the decision is made to mitigate poverty, three basic strategies suggest themselves: (1) Helping those who have the potential to develop their own human resources to the point that they have enough to sell in the market to bring themselves over the poverty line; (2) providing income assistance or assistance in kind to those who do not have the economic potential; and (3) some combination of the above choices.

In reference to strategies (2) and (3) above, can and should our income assistance programs move significantly from categorical to more general types of assistance? What are the implications on program cost, incentives, and welfare of alternative courses of action—for example, the negative income tax proposal or a guaranteed income floor for all persons or all persons who cannot, for reasons of age or health, be in the labor force?

PART IV is concerned with the economics of health care and improvement programs. At least five broad types of programs may be distinguished: care and treatment of the ill; the prevention of illness; medical research; the training of medical manpower; and the

<sup>8</sup> The Joint Economic Committee's Subcommittee on Fiscal Policy has invited experts to prepare papers for a symposium on old age income assurance in order to make available to a wide audience current thinking on problems in private and public pension programs and related programs whose objectives include old age income assurance.



building of medical facilities. Some of the Government programs in the health field may stimulate the demand for medical services, while others may stimulate the supply of medical services. Is the relative emphasis between these two types of measures appropriate? Dollar amounts devoted to medical care have certainly risen relatively as a share of consumer incomes and expenditures. But there have been substantial price effects so that the "real resources" devoted to this area have been quite different. To what extent are these price advances attracting additional resources and to what extent do they represent monopoly returns? What are the potential returns from productivity advances in this sector? Or must the rising demand be met entirely by rising prices and more resources?

Are the people of the United States receiving reasonably adequate medical care? Of course, "reasonably adequate" is difficult to define, but perhaps some indication can be gained by comparing the general average to the health indexes of particular areas and groups.

What is the economic cost of the significantly higher death rates among Negroes, Indians, and perhaps other groups? What is the cost of area differentials in health care which are not associated with race? What are the costs of absenteeism from work and the major causes? How large are investments in occupational health and of what magnitude is the economic loss resulting from occupational hazards?

From the standpoint of consumption, the price mechanism signals that more health services are demanded as a nation develops, and as family incomes increase. However, health services also contribute to the growth process. Although there has been relatively wide discussion of the contribution of investments in health to the economic development of underdeveloped countries, there has been relatively little discussion of optimal health programs for the further economic development of advanced nations.

Job performance is correlated with workers' health. Absenteeism and employees' health insurance add substantially to the costs of doing business. Moreover, the cost in production forgone of ill or injured workers may be even greater in an economically advanced country than in a developing country. In early development if a worker becomes ill or injured, there are many more young and healthy workers to take his place in the industrial sector. That is, the alternative cost is relatively low. But when high proportions of the population are productively employed, the cost of replacing a typical sick or injured worker may be much greater. What are the marginal returns of resources devoted to the prevention and treatment of illness and injuries? To what extent can benefit-cost ratios assist in making this analysis?

In the field of medical research, which diseases should receive how much study? Which are the most costly to the families involved and to the nation? Should relatively more resources be devoted to the dissemination of research results or to research itself? Is maximum use being made of modern methods of communication and data transmission? Should more funds be devoted to medical research versus other types of research or would additional funds merely result in increased research costs, particularly in the form of higher salaries?

PART V is concerned with the economics of environmental improvement.<sup>9</sup> As an economy becomes highly industrialized, it may be necessary to devote more effort and more resources to overcoming the adverse side effects of the growth process itself.

What are the effects of environmental factors on labor efficiency? Is it possible to isolate the adverse effects on productivity of poor housing, inadequate recreation facilities, and noisy, dirty, unsafe streets? Should more research be undertaken to predict or warn against possible adverse environmental effects of particular technologies or of simply crowding?

So far, most economic analysis has involved resources with positive values. Input-output analysis has been in terms of the transformation of resources to finished goods without extensive analysis of the by-products which have negative value. Is it possible to generalize about the extent and growth of resources needed to counter the harmful effects on the environment as a result of production processes?

Pollution prevention measures have costs as well as benefits. How extensive are the net costs to businesses of devices to prevent pollution? How rapidly are these costs likely to increase during the next decade? What criteria should determine whether a particular anti-pollution measure should be adopted, and who should bear the cost? What form should pollution controls take? For example, should minimum standards be established, or should results be sought through a system of taxes and incentives?

<sup>9</sup> The Joint Economic Committee's Subcommittee on Urban Affairs is conducting a long-range investigation of problems of our urban environment. As a first step, it has invited experts to contribute papers to form a compendium to be followed by hearings in the early fall of 1967.

JOINT ECONOMIC COMMITTEE REPORTS AND HEARINGS RELATING  
TO HUMAN RESOURCES

- Selected Government Programs Which Aid the Unemployed and Low-Income Families.* Staff study, November 1949.
- Low-Income Families and Economic Stability.* Staff study, September 1950.
- Low-Income Families.* Hearings, December 1949.
- Low-Income Families and Economic Stability.* Report, March 1950.
- Employment and Unemployment.* Report, February 1950.
- Underemployment of Rural Families.* Staff study, February 1951.
- Making Ends Meet on Less than \$2,000 a Year: Case Studies of 100 Low-Income Families,* March 1952.
- Employment and Unemployment Statistics.* Hearings, November 1955.
- Characteristics of the Low-Income Population and Related Federal Programs.* Staff study, October 1955.
- Low-Income Families.* Hearings, November 1955.
- A Program for the Low-Income Population at Substandard Levels of Living.* Report, January 1956
- Historical and Comparative Rates of Labor Force, Employment and Unemployment.* April 1959.
- The Extent and Nature of Frictional Unemployment,* by the Bureau of Labor Statistics, November 1959.
- The Low-Income Population and Economic Growth,* by Robert L. Lampman, December 1959.
- The Adequacy of Resources for Economic Growth in the United States,* by Joseph L. Fisher and Edward Boorstein, December 1959.
- The Structure of Unemployment in Areas of Substantial Labor Surplus,* by the Bureau of Labor Statistics, January 1960.
- Economic Programs for Labor Surplus Areas in Selected Countries of Western Europe.* Staff study, December 1960.
- Higher Unemployment Rates, 1957-60: Structural Transformation or Inadequate Demand.* Staff study, November 1961.
- Unemployment: Terminology, Measurement, and Analysis.* Study Papers, November 1961.
- Employment and Unemployment.* Hearings, December 1961.
- Employment and Unemployment.* Report, February 1962.
- State of the Economy and Policies for Full Employment.* Hearings, August 1962.
- Measuring Employment and Unemployment.* Hearings, June 1960.
- The Distribution of Personal Income.* Staff study, December 1964.
- Technology in Education.* Hearings, June 1966.
- Automation and Technology in Education.* Report, August 1966.
- Old Age Income Assurance: An Outline of Issues and Alternatives.* Staff document, November 1966.
- Federal Programs for the Development of Human Resources.* A Compilation of Replies from Departments and Agencies of the U.S. Government to a Questionnaire Formulated by the Subcommittee on Economic Progress, December 1966.

## COMPENDIUM OUTLINE

## PART I

## ASSESSMENT OF THE DEVELOPMENT OF HUMAN RESOURCES IN THE AMERICAN ECONOMY AND GOALS FOR 1975

- I. Human resource goals, or from a policy of high employment to one of full realization of human potential; the relation between economic growth and human resource goals; the allocation of resources among competing goals.
- II. Measures of "investment" in human resources.
- III. Methods of program evaluation; criteria; comparisons of alternative means, including those of the private sector.
- IV. The design and operation of programs for human resource development; the formulation process, the organization of programs, techniques for improved decisionmaking, the compatibility of objectives and incentives.

## PART II

## EDUCATION AND TRAINING: NEEDS AND PROGRAMS

- I. The dimensions of the problem: an inventory of education and training needs; economic loss of underutilized human resources;
  - A. Need inventory and required resources.
  - B. The measurement and extent of underemployment: the special employment situations of women, nonwhites, and the problem of phasing the young into the job market and the old out; the required resources for alleviating these difficulties.
- II. The design of programs for meeting education and training goals; the role of public and private sectors; the structure and emphasis of programs for employment preparation; program adequacy at present and in 1975; relevant foreign experience.
- III. Evaluation of the economic effects of the programs:
  - A. Benefit-cost.
  - B. Distribution.
  - C. Market efficiency.
  - D. Economic growth.
  - E. Financing.

## PART III

## INCOME MAINTENANCE AND FAMILY SUPPORT: RESOURCE REQUIREMENTS AND PROGRAMS

- I. Definition of the problem: Its dimensions; the income gap (variously defined); the debilitating effect of poverty (present and future) on the economy.
- II. The design of programs of income assistance:
  - A. Categorical versus general programs.
  - B. Regional variations in assistance levels.

## 12 PROGRAMS FOR THE DEVELOPMENT OF HUMAN RESOURCES

## III. Economic evaluation of programs:

- A. Consumption distinguished from investment aspects.
- B. Intergeneration effects on earning power.
- C. Positive and negative effects on incentives.
- D. Effect on economic and social mobility.
- E. Effect on worker productivity and labor cost.
- F. Effect on economic stability and growth.

## PART IV

## HEALTH CARE AND IMPROVEMENT: NEEDS AND PROGRAMS

- I. Relationship of health factors to economic efficiency and growth:
  - A. Health programs and labor efficiency.
  - B. Benefit-cost analysis of health programs.
  - C. The allocation of research among diseases.
- II. The adequacy and distribution of medical care.
- III. Economic evaluation of programs:
  - A. Supply-stimulating programs.
  - B. Demand-stimulating programs.

## PART V

## ENVIRONMENTAL IMPROVEMENT

- I. The effects of environmental factors on labor efficiency.
- II. External effects of industrial debris, and air, and water pollution:
  - A. Consumer welfare, health, and safety.
  - B. Producer costs.
  - C. Community services.
- III. The relationship between economic growth and human environment:
  - A. Effects of economic growth on environment—specification of effects and community costs.
  - B. Effects of environmental pollution on economic growth.
- IV. Investment in pollution prevention:
  - A. Effects on business cost.
  - B. Measuring the returns to the consumer, firm, and community.
  - C. Financing.

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**Part I**

**PROGRAM APPRAISAL, NATIONAL GOALS, PROGRAM  
MANAGEMENT, AND COORDINATION**

# ON THE PROBLEMS OF PROGRAM APPRAISAL IN THE FIELD OF DEVELOPMENT OF HUMAN RESOURCES

BY GERHARD COLM\*

## SOCIAL PROGRAMS TO BENEFIT INDIVIDUALS OR TO SUPPORT NATIONAL ECONOMIC GROWTH

A Congressman recently said to me: "It is so essential that in advocating social programs we recognize not only the benefits for the individuals directly concerned but are also prepared to demonstrate what the Nation as a whole would gain from a program under consideration. How can we develop a systematic program appraisal for this task?" The demonstration which the Congressman apparently had in mind would have to be based on a computation which shows that the program will result not only in direct gains for the beneficiaries but also in net gains for the economy as a whole, and thereby would benefit all groups of the population and the Nation as a whole.

I will discuss in this essay to what extent an objective program appraisal can do what the Congressman would like to see done. His wish is understandable because those who advocate social programs often meet the argument: We respect your humanitarian concern for deprived individuals; it would be nice if we could adopt the proposed program, but it would require increasing taxes to such a level that they would stifle individual initiative and would absorb funds which otherwise could be used to finance economic growth. Thus, a social program desirable in itself may contribute to economic stagnation; that is, by giving a benefit to some individuals in need we may harm society as a whole, and thereby harm many more individuals now and in future generations than would be assisted.

Confronted with the argument that rapid expansion of social programs may lead to stagnation, social scientists took to the counter-offensive. Their counterargument is that social programs do not merely divert productive resources from other uses but also *create* productive resources. Thus they may play an essential role in promoting economic growth and the general welfare for the future. The key concept is "investment in human resources." Such investment is as important for economic growth as investment in hardware (such as business plant and equipment, transport facilities, and so on). Production requires healthy and well-trained people. It also requires people who are moti-

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\*National Planning Association.

AUTHOR'S NOTE.—This essay is based largely on work done at the National Planning Association, especially in the Center for Economic Projections and the Center for Priority Analysis. Michael March, Leonard Lecht, John Miller, and Nestor Terleckyj made helpful comments on an early draft. Responsibility for the position taken is entirely the author's. This is called an "essay" in contrast with a scientific paper which would require more references to the literature. In the light of the very extensive literature this would have been a task for which time was not available.

vated to seek out what use they can make of their abilities and to make a success of their jobs. And it requires holding to a minimum the dead-weight costs of juvenile delinquency and other social costs which often result from poor environment and living conditions. Thus seen, social programs are not a drag on economic growth but an essential factor in the promotion of economic growth.

Looking at programs for human resources as a national investment has required a substantial modification of traditional theories of economic growth. Traditional models regarded the rate of saving and investment in productive "hardware" as the key for explaining economic growth. This theory had to be reconciled with the view that growth depends on expansion in money and aggregate demand. Now, investments in human development and in knowledge are recognized as factors which should also be built into a model of growth.<sup>1</sup> In the meantime, the discovery of the role of investment in human resources also gave a new, and very effective, "sales" argument. However, it may lead to undesirable decisions if the contribution to economic growth (or to GNP) is used as the crucial or main criterion for judging the value of social programs and for establishing priorities among various desirable programs.

The usefulness and limitations of an economic evaluation of social programs have become apparent in connection with the planning-programing-budgeting system. One way of estimating, for example, the benefits of various medical programs is to compute the wages or salaries which will be earned by those whose productive life is prolonged by the success of a medical program. In the case of housewives the benefit is measured by the saving resulting from not having to employ a domestic employee to take care of the children and other household chores. These benefits, discounted over time, are then compared with the estimated costs of achieving the success of the program. Similarly, correlations have been established between the level of education and the future level of wages or salaries. These correlations permit calculation of the "yield" of educational investments for the individual and presumably for society.

Such calculations are valuable because they demonstrate that social programs are not merely "luxuries" of a welfare state but do contribute to economic growth and to that extent are self-financing. Some social programs can be considered as the costs society has to pay for technological advances. For some programs, such as vocational training, it may even be said that they have no value except to the extent that they increase the earning power of the trainee. These programs may have a considerable value also in human terms, but this value will be realized only if the training has the desired economic effect; namely, that the trainee finds a job.

For other programs the human value may exist independent of the economic "payoff." Poor housing, poor health, poor family life, bring suffering to individuals and are cancers in the social body. Programs designed to alleviate these conditions are justified first of all on the ground of the social objectives. The same programs may also help

<sup>1</sup> It is interesting to note that John W. Kendrick estimates that of total investments, the share of "soft" investments was 37 percent in 1929, 47 percent in 1965. (See National Bureau of Economic Research, *Annual Report for 1967*, p. 13.)



people to gain needed motivation which, in turn, is essential for successful education and training efforts. Indirectly, these may be very important factors making for the individual's increase in productivity and thereby contribute to economic development. Under conditions of slack in demand such programs as urban renewal may stimulate private investment in construction and may contribute to rising economic activity. Nevertheless, it is conceivable that programs for the promotion of social purposes could be advocated even if they would not add to the growth in GNP. In this case, the social goal is the prime objective, with the contribution to economic development in most cases a highly desirable byproduct.

If the increase in earnings is used as a criterion, for example, for the evaluation of medical programs, there would be attached only a minimum value to programs for the special benefit of the aged. Also, the consequences for education would be rather horrifying, if educational policy were oriented mainly toward the largest possible increase in GNP, or if the estimates of comparative "yield" of additional investments in hardware and in human resources would be used to allocate resources to these two kinds of investments.

While there are cases which clearly fall into either the category of human resource programs for which the economic contribution is relevant or for which it is clearly irrelevant, most social programs belong to a middle ground; that is, they are valuable for the social benefits per se and, in addition, because they contribute to economic growth, which, in turn, makes social achievements more feasible.

#### THE MARKET AND THE POLITICAL PROCESS

To the extent that social programs are advocated on humanitarian or political grounds, program appraisal may provide helpful information, but no scientific determination of the value of one program area in comparison with others is possible. No scientific evaluation can advise us of the relative superiority of, let us say, health, educational, or urban renewal programs or old-age benefits in comparison with, say, space exploration or national defense. Saying that decisions are political in nature does not mean that they are arbitrary. With various degrees of articulation people have a notion of the place they think their country should have in world affairs and what they regard as a satisfactory development of domestic social affairs. Many people may have no specific view on these national goals, but they have confidence in the general positions taken by political or civic leaders whom they respect. The voters' loyalties to political parties and the attitude toward individuals are probably still more decisive for political votes than their judgment on issues, particularly at the national level.

National attitudes on objectives and policies emerge from an interaction between civic leaders, political leaders, organized pressure groups, and the population at large. Some political scientists have proposed that sophisticated public opinion polls might find out what preferences the electorate has for various goals. The political leaders could then be guided by the "will of the people," which some people believe is required by the democratic process. Such proposals often cite an analogy with the market process. Allegedly, in the market con-

sumers have preferences for the goods they want to buy and producers respond to these expressions of demand. ("The consumer is king.") Correspondingly, it is believed that the electorate's preferences for government actions should determine the use of resources in the public sector. In this sector, then, "the voter is king." I think both views are like playing "Hamlet" without Hamlet—leaving out the role of the innovating entrepreneur in the market process and the role of the political leader in the political process. The innovator who develops a new or improved product is guided by what he believes he can persuade the consumer to buy. Once he has developed a new or improved product or service he will attempt to present it to the consumer in the most attractive form, and by advertising and other means to persuade the consumer to accept the product. True, the consumer has the final decision—to buy or not to buy. The successful innovator will develop products or services about which consumers, after years of use, will wonder how they ever could have done without them.

The role of the political leader should be seen in analogy with such a dynamic entrepreneur. He also does not merely respond but leads; that is, he proposes government policies and tries to convince the constituents of their value and works for their approval. Like the innovating entrepreneur, he may in many cases obtain the new ideas (inventions) from individuals or groups in private life or from his subordinates. But he is the man who stakes his political future on advocating a program. Statesmanship does not consist in reading the minds of the constituents but in anticipating future needs and recognizing pregnant ideas. But the statesman will pursue only the ideas which he believes he can persuade his constituents to accept as being in their interest. As he usually needs broad support he must appeal not merely to a special group interest but to some concept of the general interest. The political leader, however, would not merely pick ideas which already have consensus or a majority behind them. It is his task to create such consensus or at least majority support.

In forming a view of the public interest the politician may be motivated by intuition, ambition, emotion, yielding to pressure groups, "politics" (in the narrow meaning of the term), and sometimes by bias for particular provincial interests. In selling a proposal, however, the advocate will be more convincing the better he can demonstrate in a rational manner the general benefits expected from his proposals. Also in the political sphere, the most valuable proposals are those which years after their adoption and implementation will no longer be controversial. As the acceptance of new ideas is a slow process, a conflict may arise because the politician needs an early political "pay-off" for reelection. One of the most serious problems of democracy results from the fact that the gestation period of ideas and their implementation does not coincide with the political clock. The great statesman often achieves consensus posthumously.<sup>2</sup>

The emphasis on the political process in making decisions on social programs and priorities was not meant to deny the importance of program appraisal. I find it useful, however, especially as an economist and in a publication of the Joint Economic Committee, to remind our-

<sup>2</sup>For a fuller development of these views see my essay "In Defense of the Public Interest" in *Social Research* Autumn 1960 (vol. 27, No. 3).

selves and the readers of the essentially political frame within which program decisions have to be made. Program appraisal provides, however, essential information for those who make policy decisions or who wish to take part in the debate about such decisions.

#### PROGRAM APPRAISAL, PAST AND FUTURE

Program appraisal is concerned with the future but must be grounded in information about the past. Social ills rarely appear suddenly but unfortunately have a long history. And most new social programs are designed either to expand or improve existing programs or to replace existing programs believed to be ineffective. Those who advocate a new program, for example a negative income tax or an ambitious family allowance program for dealing with the poverty problem, usually claim that existing programs, such as social insurance or social assistance, have proven inadequate. Program appraisal, therefore, requires a review of all present programs related to the social problem with which a proposed program is designed to deal. Such program review should permit a better informed judgment with respect to the comparative advantages of expanding or modifying existing programs or embarking on new programs to supplement or replace existing programs. Program appraisal is usually made more manageable by concentrating on additions to existing programs. When a new government housing or urban renewal program is under consideration involving, let us say, \$2 billion per year, not the whole effect of a \$25 billion per year outlay of private and public funds would be examined. This concentration on program increments may, however, lead to carrying on programs which in their present form have become obsolete or require modification. Therefore, periodically existing programs should be reappraised.

Program review should also be helpful in discovering inconsistencies among existing programs. I remember that during the 1940's the Bureau of Reclamation planned to provide irrigation for the exact area which the Corps of Engineers had designated as a reservoir for a flood control and hydro-electric power development. That "little" inconsistency between two Federal programs was discovered by the Budget Bureau, and the Budget Bureau is, I am sure, constantly working on less dramatic cases of inconsistency. The recent establishment within the Bureau of a Human Resources Program Division may facilitate such a task for this area. Material prepared for the PPBS may often be helpful in discovering inconsistencies and suggesting consolidations which may reduce costs.

Thus, the first step in program appraisal must be an attempt to demonstrate the social *problems* that exist and the contribution existing programs have made or failed to make in alleviating them. Demonstrating the existence of a problem and the adequacy or inadequacy of programs designed to deal with it requires defining what would be regarded as a satisfactory or tolerable state of affairs. However, the review of social ills and programs of the past is mere "prologue." Program appraisal by necessity is future-oriented and concerned with our society's goals as well as with the programs—the means—for achieving them.

## GOALS RESEARCH AND PROGRAM APPRAISAL

There is a difficulty in determining what is regarded as a national goal today. It is even more difficult to project criteria for goals into the future. Formulating a new antipoverty program, for example, requires a definition of poverty. Thus, there has been debate over the criterion for poverty. There can be a static definition, for example, of a family income of below \$3,000 or \$4,000, or a dynamic definition of a family income perhaps of below one-half the national median income or a multiple of the minimum required for food now and at a future time (in all cases with allowances for location, family size, and so on). Also needed is a review of the success and failure of previous programs dealing with poverty.

There evolves in each society a vague concept of the "good society." The existence of such a concept is reflected in the intensity of reform, if not revolutionary, movements and the echo of these movements find in expressions of the conscience of public opinion leaders and the general public. Scientific program appraisal requires an articulation, if possible in quantitative terms, of these vague notions of the good society. "Goals" research is concerned with exploring the possibility of developing quantitative criteria in various areas of concern, such as the standard of living, education, health, urban environment, transportation, and so on. In order to avoid "pie in the sky" goals as criteria for social objectives it is necessary to give a time and feasibility restraint to the definition of goals. The National Planning Association has, therefore, in its approach to the problem attempted to obtain answers to the question: What do knowledgeable people currently regard as reasonable goals for attainment in various fields over a 10-year period? <sup>3</sup> Experts, for example, in health, were asked what they believed were (a) desirable and (b) feasible objectives, considering the anticipated progress in science, the possible training of scientists, and so on. Then cost estimates for the achievement of these goals were prepared. These were "aspiration" goals because the formulation did not take into account possible conflict between claims on resources and funds for health programs and other claims, such as defense or any of the other nondefense goals. This phase of research does not deal directly with priority decisions among various goals and programs but provides essential information for priority considerations.

## APPRAISAL OF PROGRAM PROPOSALS

PPBS has marked a great step forward in the appraisal of program proposals. However, as far as an outsider can observe, it will take considerable time until it can be made really effective. When first applied to military programs, the emphasis was on comparing costs of various programs designed to accomplish a given objective. The difficulty in the application of this approach to social objectives is that most programs relate not only to one clearly identified objective but to several objectives. In the social field there are rarely several programs which would achieve exactly the same purpose, distributing benefits and costs in the same manner, and distinguished only by costs.

<sup>3</sup> See Leonard A. Lecht, *Goals, Priorities, and Dollars: The Next Decade* (with an introduction by Gerhard Colm). New York: the Free Press, 1966.

Therefore, a simple cost comparison does not necessarily lead to the best choice. Furthermore, at present, emphasis is largely on budgetary costs; an appraisal in terms of manpower and other resources is of equal, if not greater, importance but is not given equal weight in present PPBS practice. It was certainly wise to limit the scope of the PPBS in its initial stage. The Federal Government was not "tooled up" even for a modest beginning. It should be recognized that the Federal Government still has a long way to go before the objectives of PPBS, as first announced by the President, will be fully realized, particularly with respect to the social goals.

The President's initial statement referred expressly to the relationship of programs to national goals. In spite of work going on through an intergovernmental effort (under HEW sponsorship) on the development of "indicators" for social goals, most agencies still identify national goals with agency missions and take it for granted that their missions are the best possible ways to serve the national goals.

Appraisal of a social or any other program requires relating the program under consideration to specific goals. This, in turn, requires that the responsible agency be provided with some guidance concerning the goals to which its mission should be oriented. The current work on "social indicators" should be helpful in developing some quantifiable expression of social standards which can be used for establishing targets and for measuring progress that has been achieved.<sup>4</sup>

When the agency relates its missions and programs to goals and targets it has to take into consideration that in pursuit of most goals more than one Federal agency and usually also State and local governments are involved. In our society private sector activities must also be considered. These are in many cases stimulated by the Government programs (e.g., urban renewal, training programs, or tax privileges which are designed to stimulate private activities). In other cases private activities in the same field may be carried forward on purely private initiative.

An appraisal of a Federal program must consider the direct costs of the Federal program, evaluated in terms of dollars and manpower, in relation to the other Government and private activities related to the same general objective.

If social or other goals are expressed in physical terms (e.g., rate of illiteracy, infant death incidence, educational achievements) their pursuit has to be priced in terms of dollars or manpower because only thereby the economic costs of pursuit of goals can be estimated and related to available resources which are also priced in terms of dollars or manpower. This is essential for an appraisal of social goals in the perspective of all national goals.

Cost-benefit calculations are an important tool in program appraisal. However, I believe in many cases such calculations are useful only if related to the broader frame of goals. Cost-benefit calculations in themselves are subject to three limitations: (1) They are usually

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<sup>4</sup> It may be useful to draw attention to the terminology used: National goals are objectives to be pursued by public and/or private activities. For the quantification of goals, targets (or standards) are established which are often inadequate but are operationally useful "proxies" for a goal. Missions relate to the contribution to these goals by individual agencies. The agencies pursue the missions by programs, but often more than one agency is involved in a program (e.g., war against poverty or manpower development). A program consists of projects.

applicable to very specific projects and may result in a fragmented approach, except if evaluated within a broader perspective; (2) they often focus on more easily quantifiable direct costs and benefits and tend to pay only lip service to "spillover effects" benefiting people indirectly or in the future; (3) with respect to the evaluation of future benefits, there is the choice of a discount rate which makes it possible to inject a factor of subjective judgment in what pretends to be a rigorous calculation.<sup>5</sup>

### PROGRAM APPRAISAL AND ECONOMIC PROJECTIONS

The costs involved in a program—in dollar, manpower, or other terms—need to be evaluated in the dynamic framework of an economy of growing GNP, rising manpower resources, new technologies, and increasing tax yield (due to rise in incomes and sales and without rise in tax rates). The economic projections present estimates of potential or probable<sup>6</sup> GNP and its component parts. They also need to present manpower projections (e.g., shifts in skill requirements, in employment opportunities for black and white), and developments such as probable changes in the distribution of income. Depending on the type of program to be evaluated, different aspects of national economic projections should be given in greater or lesser detail. Regional differences should also be taken into account. For appraisal of urban renewal or transportation programs projections for metropolitan areas should be used.

An important question is: To what extent will social problems be aggravated or mitigated merely as a result of a higher or lower rate of economic growth? Economic projections should not only sketch the possibility or probability of future economic advances but also look into the likely distribution of benefits from these advances. Thereby economic projections can to some degree contribute to the recognition of social deficiencies and tensions which may develop in the course of economic development and may require remedial action. In many cases these questions cannot be answered in quantitative terms. To be useful for program appraisal the quantitative projections should be supplemented by qualitative analysis.

Programs must be evaluated in a dynamic frame of projections in order to answer the crucial question: Can an expanded or new program be pursued with the resources which are likely to become available through the expansion in productive resources, increased productivity, and the related increase in tax resources or savings?<sup>7</sup> If we relate an expanded or new program to existing resources—by definition a cut-back in other economic activities is required unless available idle resources could be mobilized. It is not preordained that new programs must be limited to the size of increased production potential. However,

<sup>5</sup> For a discussion of various approaches to program evaluation as applied to education, see M. Blaug, "Approaches to Educational Planning," *The Economic Journal*, vol. LXXVII, No. 306 (June 1967), pp. 262-287.

<sup>6</sup> The two concepts should be clearly distinguished. NPA computes separate but related projections: "target" projections (which are normative) and "judgment" projections (which reflect a probability judgment). Often alternatives have to be used, depending on assumptions; e.g., with respect to defense expenditures.

<sup>7</sup> This is not meant to exclude the possibility that most urgent new programs may take the place of existing programs. Thus it is, for example, probable that civilian programs may be expanded when defense programs can be reduced, or the oceanics programs may be expanded if and when space programs are curtailed.

except for war and other emergency programs, the advocate of an expanded or new program will have a better chance of "selling" it if he can demonstrate that no curtailment of other activities is required—by increase in tax rates, a restrictive credit policy, or reduction in other Government programs (unless the new program is simply proposed as replacement for a supposedly less effective existing program).

There is a very simple (rather oversimplified) exercise which says that a 4-percent annual growth rate currently gives an annual increase (in constant dollars) of about \$32 billion in goods and services and about \$6 billion in Federal revenues (tax yield). Compounded, the increase in the 10th year would be \$47.4 billion in GNP and about \$10 billion in Federal tax yield (allowing for an increasing relative yield due to the progressivity in the Federal tax structure). This annual increase in America's productive potential is due mainly to the expected continuing advances in technology, the related advances in the art of management, and the rise and upgrading of the labor force. It is due also to the fact (or presumption) that we have learned to avoid severe depressions and to support steady economic growth by a combination of fiscal, monetary, and other economic policies.

The tremendous increase in potential production and the associated increase in tax yield may suggest that we can actually "afford" any reasonable desired increase in social programs, if phased over a number of years. This conclusion overlooks the fact that about half the expected increase in production potential is "preempted" by outlays needed for a growing population (even at present living standards), for the growing outlays necessitated by a shift of population from rural to urban areas, and by the capital investments needed to make the posited increase in production of goods and services possible.

Even after allowance for the "preempted" expenditures the residual potential increase in production of goods and services (the part available for "discretionary" use) is large enough to permit substantial increases in public and private activities. Actually, in the longer run the potential increase in production would not be realized without a determined pursuit of our national goals. However, considering the many claims for rebuilding the cities, for revitalizing some rural areas, for building new systems of mass transportation, it can be demonstrated that even within a 10-year period all aspiration goals cannot be simultaneously achieved. This is especially true when production potential is measured not merely in dollars but also in requirements for specific skills. Hence the need for priority decisions.<sup>8</sup>

#### EVALUATION OF PROGRAM "FEEDBACK"

A method for evaluating programs which affect production would consist of two steps. In the first round of program appraisal the "costs" of a program—in dollar and manpower terms—would be related to an independently estimated increase in potential production. Additions to the proposed program are regarded as "consuming" productive resources. In this first round the potential increase is computed *assuming* continued investments (not only in plant and equipment but also

<sup>8</sup> See Leonard A. Lecht, *l.c.*, and *Manpower Needs for National Objectives in the 1970's* (to be published in 1968 by Frederick A. Praeger, Inc., New York).

in "infrastructure" and in human capital) approximately in line with current programs and relationships.

In a second, refined, round of computations allowance must be made for the "feedback" effect the program under consideration would have on the production potential. As already stated, a social program may have an adverse effect on work incentives or may absorb resources which would otherwise be available for modernization or expansion of production facilities. This need not be an argument against social programs. Laws against child labor were adopted in spite of the argument that children were essential in certain kinds of production and that production would suffer by general enforcement of such restrictions. Entirely separate from the question of the validity of the argument, restrictions on child labor are justified on humanitarian ground— independent of their effect on production. The opposition to unemployment compensation and old-age pensions originally was based on the argument that such social programs would interfere with work incentives and thereby would have a negative effect on potential production. In devising social legislation attention is always paid to the effect on work incentives. *Some* negative effect is generally accepted, but it is a controversial issue how much is tolerable.

More important than the negative effects are the positive effects of social programs on the economic growth potential. There are many social programs for which very convincing benefit-cost calculations can be made in economic terms. Costs of training and rehabilitation programs are often negligible when compared with the additional income the trainees are likely to earn (and even compared with the taxes they are likely to pay from such potential earnings), assuming that the whole economy is expanding and additional job opportunities are opening up for those with adequate qualifications. Such benefit-cost calculations for programs designed to support the earning power as compared with income-maintenance programs confirm the wisdom in the Chinese proverb (here paraphrased): "Giving a poor man a fish supports him for a day; giving him a boat and a net and teaching him to fish helps him for a life."<sup>9</sup>

Two important qualifications need to be made. First, many of those who suffer cannot earn a decent living for reasons beyond their control; they would not benefit from a training program. For them, income assistance programs in one form or another are needed. Second, favorable calculations of a benefit-cost ratio or a high yield of social investment do not assure that outlays for, e.g., educational or enlarged program, will *by themselves* necessarily add to the individual's and society's production and income as much as suggested by the calculations.<sup>9</sup>

Economic development depends on interaction among a *system* of various factors, such as dynamic managerial policies, growth in aggregate demand, an increase of productive capacity through investment in plant and equipment, increase in the stock of technological knowledge and experience, availability of required skills, motivation of management and labor to make successful efforts, availability of sav-

<sup>9</sup> I cannot discuss within the scope of this essay the elements of validity and of spuriousness in the calculations of the "yield" of investments in human capital and of the correlation between years of education and lifetime earnings. [See Gary S. Becker, *Human Capital* (New York: Columbia University Press, 1964), also Selma J. Mushkin, "Health as an Investment," *Journal of Political Economy*, vol. LXX (special supplement, October 1962).]



ings. These and other factors must develop in some balance. This does not mean, however, that they will always increase in just the same proportions. Sometimes one factor will develop ahead of others, but success depends on the adjustment of the other factors. Program appraisal is a complex task because it requires a study of how a program under consideration is likely to affect the various interdependent factors in a dynamic system.<sup>10</sup>

An illustration: Assume that at the beginning of the space program an evaluation had been made of the productive factors, especially of scientists and engineers who would be absorbed by the program. If one had foreseen the full magnitude of the effect one would have probably reached the conclusion that this program would slow down technological advances in private industry and should be undertaken only if the goal was regarded as so important that the Nation would be willing to pay the price of some slowdown in the overall rate of economic growth. Considering the feedback effect of the program on the whole reservoir of technological knowledge (including system engineering, miniaturization, higher degrees of reliability, etc.) we can no longer be sure of such a conclusion. It is difficult to weigh quantitatively the positive and negative effects of the space program on economic growth, especially if other, imponderable, factors are considered. Thus, the evaluation of the economic effect of this program has remained controversial. Nevertheless, it would help in the deliberations if likely positive and negative economic effects of a program would be spelled out in advance—even if no net balance could be drawn.<sup>11</sup> The space program is probably an extreme example because of the size of the program and its complex ramifications.

In most cases a highly simplified model of the economic and social system can be used for evaluating the expected effects of a program. Also the consideration of the feedback effect is meant to be a largely qualitative modification of the result of the much simpler primary evaluation, which regards a social program as one factor absorbing a portion of independently determined productive resources. Here a social program is regarded primarily as consumption rather than as a factor in production.

### GOVERNMENT ORGANIZATION FOR PROGRAM APPRAISAL

There does not now exist in Government an organizational arrangement for systematic program appraisal of all the aspects described in this essay. The adoption of PPBS has certainly brought a great improvement in program appraisal but at least in practice it still has serious limitations.<sup>12</sup> The Budget directives instruct the agencies to

<sup>10</sup>The "system" approach for dealing with a number of interdependent factors (under conditions of uncertainty) also implies provision of information to indicate the unavoidable imbalance in the system which requires corrective action.

<sup>11</sup>I cannot suppress reference to Albert Hirschman's partly mischievous essay, "The Principle of the Hiding Hand" (*The Public Interest*, No. 6, winter 1967), where he describes cases in which programs were adopted for the wrong reason or because of lack of information, which later proved to be very useful. These illustrations should be a wholesome reminder to the planners that they are operating under conditions of inadequate knowledge and the uncertainties inherent in life.

<sup>12</sup>In a recent reorganization the Budget Bureau has strengthened its capability for overall program and priority analysis. In addition to the Program Evaluation Staff which is primarily engaged in PPB appraisal of individual programs or groups of programs, a small Resources Planning Staff has been created to take the lead on across-the-board matters such as interprogram priorities and goals. Both staffs are under the supervision of an Assistant Director of the Bureau of the Budget.

appraise their missions in terms of national goals. But, the agency heads often are without specific guidance as to what national goals they are to assume. Often they use some vague references to a national goal. They also often fail to place the mission of their own agency in relation to State and local programs and private activities in the same field. The departments and agencies have available indications of the President's program in areas which were mentioned in general or specific messages. In some areas also Presidential task forces make recommendations which, if approved, can serve as guides. All these, however, are only pieces which are not systematically fitted together; seldom are cost estimates for the full program attached, and the costs in dollars or manpower are rarely related to available resources.

Furthermore, in actual practice, costs are mostly understood to mean budgetary costs, and the emphasis has been on presenting cost estimates for alternative programs to serve the same purpose. Only in a few exceptional cases have estimates been made of the manpower directly and indirectly needed for program execution (e.g., doctors for health programs, scientists and engineers for certain research programs). Nor have the indirect effects of a program on the availability of scarce resources in the private sector generally been considered.

The Budget Bureau has always "marked up" (or more often "marked down") agency requests, considering what it understood to be the "President's program" within the restraint of general budget limitations. Perhaps what is needed is an articulation of the President's program for the Nation (as far as possible in quantitative form). This would reflect his concept of national goals and specifically the contribution Federal programs are making and should make toward the achievement of these national goals. Such an articulation of the President's program would be developed in cooperation with the various departments and agencies and in turn would provide a guide for their planning. It would also require close contact with key people in various walks of life and with goals research conducted by private research organizations. It should always be recognized that national goals are pursued by both Government programs and private activities. I believe such an approach would make a second step on the road on which the Employment Act of 1946 was a first step.<sup>13</sup>

We may have reached a critical point in the role played by Government, and this may be the time when such a second step is needed. We had experienced during the Great Depression the breakdown of our economic machinery until World War II shifted economic activity again into high gear. When the end of the war was in sight a general demand arose that arrangements should be made to prevent depressions in the postwar economy. This required setting up an early warning system for recognizing the threat of economic imbalances and establishment of advisers for the President and Congress in order to expedite formulation and adoption of remedial policies. This effort

<sup>13</sup> The reference to the conditions which led to the adoption of the Employment Act of 1946 should not be understood to suggest that a parallel piece of legislation for consideration of social goals and social accounts would be the best solution. See my testimony before the Senate Government Operations Subcommittee on Government Research on the Full Opportunity and Social Accounting Act of 1967 (S. 843), at a seminar hearing on June 26, 1967.

was designed to promote effective economic performance, which relates to full employment, price stability, a satisfactory rate of growth, and balance in international economic relations.

These economic performance goals can be contrasted with *achievement* goals. Here we ask not only for high employment, but employment and production for what. The goals include national defense, a satisfactory standard of living, health, adequate education, urban renewal, foreign aid, and so on. In our social and economic system there is no place for an overall central direction in the pursuit of these goals because they are achieved in part by activities under the initiative of the private sector. Nevertheless, it has become important to define the role the Government has to play in the achievement of these goals by stimulating or supplementing private efforts. Actually, the private efforts are likely to be more effective if business managers and labor leaders know what role the Government intends to play. That is the function of "concerted planning," or whatever term may be used.

The various specialized agencies should continue to be primarily concerned with the appraisal of benefits and costs of programs under their jurisdiction. However, appraising the benefits of one program in relation to others requires a review within the perspective of all goals. This appraisal cannot be done by an agency which, by nature, tends to place its mission and programs above all others. This is, for the Executive, the ultimate responsibility of the President, for which he needs assistance from his own Executive Office. Only then would it be assured that the economic benefits and costs of various programs would be evaluated within the perspective of the national goals, particularly the social goals, as a whole, and the requirements for economic growth.

In considering a special arrangement for program appraisal at the highest level of the Executive, two apparently contradictory objectives need to be reconciled. Program appraisal should not be assigned to an agency which is outside of the major stream of Government decision-making. This was one of the reasons that Congress felt it could, without harm, abolish the National Resources Planning Board in 1943. On the other hand, it should not be an agency overburdened with day-by-day assignments, a fact which makes it difficult for the Budget Bureau or the Council of Economic Advisers to devote to long-range planning problems the attention which this task requires. In proposing a specific organizational solution consideration should be given not only to questions of administrative expediency but also to the need of making clear to the public that long-range "concerted planning" has been accepted as a major function of Government. While I believe that such "dramatization" will be needed at some time in the future I am less certain about the appropriate timing for such a move.

From this it follows that it would be desirable if—

1. The "President's program" should be articulated, spelling out wherever possible the various achievement goals in specific terms. For this purpose the President needs assistance, possibly by a special counselor and the aid of an agency in the Executive Office of the President. It would have to work in the most intimate cooperation with the Budget Bureau and Council of Economic Advisers.

2. The President would be assisted in his task also by an Advisory Board on National Goals and Resources on which would serve individuals drawn from business, labor, agriculture, urban and rural groups, and from academic and research organizations. Also a special liaison with State and local governments should be established. It would be most desirable if the members of this Board would be selected by an independent organization.

3. The costs of major programs under consideration would be calculated in a uniform manner, not only in budgetary terms but also in terms of direct and indirect requirements for manpower and other resources over a period of time. The main responsibility for providing cost estimates would remain with the agencies directly concerned.

4. A long-term projection of economic growth in dollar and manpower terms would be provided which then could be used to test the economic feasibility of programs under consideration. An effort of this kind has been undertaken in recent years under the general direction of the Council of Economic Advisers and with principal participation by the Bureau of Labor Statistics in the Labor Department and the Office of Business Economics in the Commerce Department. As far as I know, this model has not actually been used for long-term program appraisal.

5. The various congressional committees and the Congress as a whole should also have an opportunity to look at the Nation's aspirations and the resources as a whole as a perspective for review of individual programs. In this essay I will not make specific proposals as to the congressional committee which should undertake the review of the President's program in the light of available resources. I welcome that a subcommittee of the Joint Economic Committee has undertaken the present inquiry and initiated the compendium for which this essay is a contribution. But I believe that programs for human resources should be reviewed in the perspective of all programs and resources.

It may still take some time before the Government is ready to adopt a proposal like that outlined above. Eventually the functions which may grow out of the need for program appraisal may require a major reorganization of the Executive Office, possibly also new assignments for congressional committees. In the meantime it is useful if private research organizations further explore methods of goals research, and methods of relating goals and programs to each other and to the resources which are likely to become available.

At present NPA is engaged in economic and manpower projections on the national, regional, and metropolitan levels and in goals and priority research. Independent research work of this kind should be carried on, irrespective of whether or not such work is also undertaken by the Government. The question now is whether the time is ripe for the Government, also, to undertake a more systematic planning of its own programs and of its role in pursuit of national goals. I believe this would provide the agencies concerned with various programs with the guidance they need for implementing a fully developed planning-programming-budgeting system.

## CONCLUSION

In closing, I would like to come back to the question of the Congressman to which I referred at the beginning. There are certain programs in the field of human resources (e.g., in training) where it can be demonstrated that the costs of a program are negligible in relation to the benefits which are likely to accrue to individuals and the Nation as a whole. Here it is assumed, however, that, at the same time, fiscal and credit policies in support of steady growth are pursued. These gains in terms of dollar income are entirely besides the individual's gain in self-respect. There are other programs where the primary justification is in terms of humanitarian values. Also in these cases economic appraisal is essential in order to answer the question of whether or not the Nation can "afford" a program under consideration, and to what extent pursuit of one goal requires cutbacks, if not in the pursuit of other existing programs, then possibly in goal aspirations. To that extent the development of more systematic and comprehensive program appraisal is of essential importance.

Perhaps the main point I want to make is that an appraisal of all programs, including those for the development of human resources, is essential and that these programs should be appraised within the frame of long-term economic projections. Indeed, it is of fundamental importance that investment in human resources and the related investment in knowledge have been added to the "classical" factors, especially saving and investment in plant and equipment, to explain economic growth. But it is also essential to remember that the use of the term "investment in human resources" should not lead us into thinking that the worth of a social program should be measured solely, or mainly, by its contribution to the GNP and to economic growth.

## TWENTIETH CENTURY NATIONAL GOALS IN THE DEVELOPMENT OF HUMAN RESOURCES\*

BY PHILIP M. HAUSER\*\*

Within the United States we have a population, white and black, as large as that of all of Turkey (some 32 million) who have not been permitted fully to participate in our social, economic, and political orders. They are included in "the poor" on behalf of whom we have mounted "the war against poverty."

"The poor" include two broad categories of persons. They include those who, for a variety of reasons, have fallen by the wayside in their efforts to make their way in our competitive order. The reasons include chronic or acute physical or mental disabilities; families broken by death, divorce, separation or desertion; the loss of incentive, motivation or morale; deviate behavior such as represented by delinquency, crime, alcoholism or drug addiction; and residence in "depressed areas"—areas which have lost their economic base.

But the poor also include many millions of persons who cannot be described as having fallen by the wayside. They include disproportionate numbers of minority groups—Negroes, Mexicans, Puerto Ricans, American Indians, recent immigrants and, also, Appalachian whites ("hillbillies")—who have not had the opportunity to get underway—who have been denied access to American society.

Prior efforts to deal with poverty have included the establishment of the social security and welfare systems in this Nation. These programs have made it possible for the vast majority of our citizens to earn "rights" to income maintenance in old age or under conditions of disability, and to receive aid under specified conditions of need. The tragic fact is, however, that a disproportionate number of welfare clients are today not persons who have fallen by the wayside but are, rather, persons who by reason of inadequate opportunity and preparation have never been able to get underway—stand on their own feet in our society. Some of the antipoverty programs recognize this situation, programs such as Headstart and the various educational and training programs.

The undeniable fact is that a part of the population of this Nation, large enough to constitute a medium-size nation, have been and still are excluded from full participation in our society.

This fact is increasingly making a mockery of our claim to be a democratic society characterized by equality of opportunity. This fact points to a most tragic waste of our human resources. This fact should lead, if we are a rational society, to the adoption of policies and programs designed to develop our most precious undeveloped national

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\*Adapted from a paper prepared for the National Health Council for the 1957 National Health Forum, March 20-22, 1967.

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resource—our opportunity-deprived human beings. To face up to the problem of human resource development it is necessary first to set forth a series of social goals—a framework for making possible the achievement of the human potential.

Any contemporary consideration of social goals must be placed in the context of the American scene in the third quarter of the 20th century. Since the present is only seven generations removed from the founding of this Republic, it should not be surprising that any such statement of goals is likely to become enmeshed in the general ideological conflict that characterizes the contemporary period—often referred to as the conservative-liberal debate. More specifically, any realistic statement of social goals and even the notion of national planning is apt to create almost instinctive adverse reactions from that part of the American public which is opposed to increased governmental intervention into human affairs. For this reason it is appropriate briefly to outline the profound transformations which American society has experienced since the ratification of the Constitution of the United States.

#### THE TRANSFORMATION OF AMERICAN SOCIETY

In 1790, there were less than 4 million persons in this fledgling Nation. Of these, 95 percent lived in rural areas—on farms or in places having fewer than 2,500 people. Only 5 percent lived in urban places, of which there were only 24 in the entire Nation. Only two of these urban places, New York and Philadelphia, had populations in excess of 25,000. In short, the United States at the writing of the Federal Constitution and, indeed, most of the State constitutions for which it was the prototype, was an agrarian society—with agrarian patterns not only of economic activity and organization but, also, agrarian modes of thought and values, and agrarian forms of governmental structure—Federal, State, and local.

In the brief period of 160 years between the First and our 17th Decennial Censuses, the population of the United States doubled five times to reach a total, by 1950, of over 150 million. In each of the first three times the doubling took only 25 years—between 1790 and 1865. The fourth time it took 35 years to double, between 1865 and 1900; and the fifth time it took 50 years, between 1900 and 1950. The increased period required for doubling testifies to the reduced rate of total population growth as the national birth rate underwent a secular decline, and immigration, after the 1920 exclusion acts, diminished. World War II and its postwar cold-war aftermath generated a marriage and baby boom unprecedented in their magnitude and duration. In consequence, by 1960, the population of this country totaled almost 180 million. At the present time (in December 1967) we have an officially estimated population of over 200 million.

The explosive population increase was accompanied by dramatic population redistribution. By 1960, 70 percent of the American people lived in urban places which had increased to a total of 6,041. Furthermore, by 1960, 63 percent of the population lived in standard metropolitan statistical areas (SMSA's), as defined by the Federal Government, central cities of 50,000 or more persons and the counties in which these are located.

With the increased concentration of the American people into ever larger agglomerations, new problems of many kinds were precipitated, including physical problems, social and economic problems, and political and governmental problems, many of which contributed to the emergence or exacerbation of the other problems. The problems were the product of the rapidity with which the transition occurred from agrarian living to urbanism and metropolitanism as a way of life; and of the new human and social needs generated by agglomerative living.

The essential perspective which emerges from these considerations may be highlighted by observing that the United States will not until the next census, in 1970, have completed its first half century as an urban nation—for it was not until 1920 that more than half of the population lived in urban places. Moreover, during this 50-year period we shall have almost doubled again, increasing from about 106 million in 1920 to some 206 million by 1970.

It should, therefore, not be too surprising that the Nation is still experiencing frictions in the transition from rural to urban living. Furthermore, the process of rapid population growth and urbanization and metropolitianization is by no means yet complete. In the 23 years between 1967 and 1990, even with considerably reduced fertility, the country is likely to increase in total population by about 90 million persons. And of this increment, all (or more with continued rural decline) is likely to occur in urban places and over 80 percent is likely to be concentrated in metropolitan areas.

#### PROBLEMS GENERATED

The rapidity of total population growth and population concentration has created or aggravated a host of physical problems such as problems relating to housing supply, housing quality, circulation of people and goods, solid and human waste removal, air and water pollution, outdoor recreation, urban design, and the management of natural resources.

Similarly cultural and human problems have been precipitated, manifest in the changes from the extended to the nuclear family, from primary to secondary group living, from interpersonal relations based on sentiment and emotion to relations based on utility, from informal to formal social control, from crevice to enacted institutions, from behavior based on tradition to behavior based on planning and rational decisionmaking. These changes have been accompanied by many frictions manifest in social and personal pathology—delinquency, crime, alcoholism, drug addiction, and the like. They have also been accompanied by new problems of security—occasioned by such phenomena as unemployment, poverty, old age, ill health or physical impairment, and family disorganization. The changes have also greatly aggravated problems of intergroup relations and made more visible and more acute the consequences of prejudice and discriminatory practices.

Finally, rapid population growth and urbanization have also generated many political and governmental changes, including great increases in governmental functions and personnel, and various forms of intervention into social and economic affairs. They have outmoded inherited forms of local governmental structure, a phenomenon per-



haps more acutely evident in the multiplicity of governmental units with powers to tax and to spend within individual metropolitan areas. They have, through cultural lag, produced malapportioned State legislatures and a malapportioned House of Representatives in the Congress of the United States. For example, as recently as 1960 there were 39 States in which the urban population constituted a majority of the population but not a single State in which the urban population controlled the State legislature. They have in many places paved the way for administrative corruption, including alliances between organized crime and politicians, and questionable practices on the part of legislators who have, in the main, exempted themselves from codes of ethics and conflict-of-interest safeguards.

Many of the problems outlined above have been aggravated by recent changes in population composition. Chief among these is the great increase in the number and proportion of Negro Americans in the central cities and metropolitan areas. The Negro, although resident in this country for three and a half centuries, is the newest newcomer, *en masse*, to the mainstream of American life.

As recently as 1910, 89 percent of the Negroes in this country resided in the South. Moreover, 73 percent of all Negroes lived in rural places—on farms or in places with fewer than 2,500 persons. By 1960, within 50 years, less than one lifetime, the Negro population has been transformed from 73 percent rural to 73 percent urban. Within half a century the Negro American has become more urbanized than the white American and heavily concentrated, 65 percent in metropolitan areas and 51 percent in the central cities of metropolitan areas. Hence the Negro is being called upon to make an even more rapid transition from rural to urban living than has been required of the white population; and he has much less adequately than the white been prepared for the changes he must undergo. For example, as recently as 1960, 22 percent of all adult Negroes, those 25 and over, were “functionally illiterate”; that is, had not completed fifth grade; and 78 percent had not completed high school.

One consequence of the pathetic share of the American way of life which the Negro has had available to him is evident in the high incidence of poverty in the Negro community. In 1963, 42 percent of all nonwhite families in the United States were poor, by definition of the Social Security Administration,<sup>1</sup> as contrasted with 12 percent of white families. The 20 million poor nonwhite families made up 28 percent of all poor families in the Nation, more than two and a half times the proportion (11 percent) which nonwhite families constituted of the total.

Other categories of the population are confronted with a similar situation. Appalachian whites (“hillbillies”), American Indians, Puerto Ricans, Mexicans, and recent immigrants, in general, have also experienced and created many acute problems, for much the same reasons presented above—rapid population increase or concentration, together with inadequate preparation for urban living. Most of these newcomers, like the Negro, are characterized by insufficient education and poverty. They along with other elements of “the poor,” who in

<sup>1</sup> Mollie Orshansky, “Counting the Poor: Another Look at the Poverty Profile,” *Social Security Bulletin*, January 1965, vol. No. 1, p. 12.

total number some 7.2 million families with 34.6 million persons including unrelated individuals, constitute a special category requiring special consideration in any statement of social goals, and especially goals in respect of human resources.

Aggregative living has created new needs which a free enterprise economy has not met or has met only with great and costly delay; and many problems for which the social heritage has no solutions. It is small wonder then that society is still groping for mechanisms by means of which such new needs can be met and new problems resolved. And especially important among the new needs and new problems are those associated with the development of our human resources.

### THE GENERAL SOCIAL GOAL

It is within the framework of the above perspectives that social goals in contemporary United States must be set forth. By reason of the changed character of our society the time has come for the formulation of a comprehensive policy in respect of the development of human resources and a coordinated and integrated series of programs to achieve these goals. In stating this position it must be recognized that, in effect, it is being assumed that the United States is no longer an agrarian society characterized by a laissez-faire economic outlook and the conception that "that government is best which governs least." On the contrary, it is being assumed that the United States as an urbanized and metropolitanized society has come to understand that the personal, social, economic, and political freedoms enjoyed by its populace can and must be enhanced by positive government interventionism as necessary for the welfare of the American people. In brief, it is assumed here that the United States is a welfare state and that such a designation is neither pejorative nor dangerous. It is rather a badge of maturity—explicit recognition of the changed character of American society and the new requirements by reason of the change.

By reason of the above considerations the time has come to declare that:

*It is the general social goal of the United States to provide each inhabitant of this Nation with the opportunity, freedom, and security to enable him to achieve optimal development of the human potential; and to contribute, as far as feasible, to attainment of this goal for all humanity.*

Although this is a relatively short sentence, it embraces much—much more than the Nation has yet achieved or set out to achieve.

Some clarification of this general goal is in order. To maintain a democratic society, such as the United States professes to be, it is essential that each individual be provided with the *opportunity* to achieve maximum development. Without such opportunity open to each person, a society would, in relatively short order, become stratified into various subgroupings which, over time, would achieve differential positions of power, prestige, or status. Every person in the Nation, regardless of background—social, economic, political, racial, ethnic, religious, or familial—should, as an American, have the opportunity for the development of his capacities so as to be able to assume the obligations and responsibilities as well as the rights of

American citizenship and to advance in the social, economic, and political order to levels limited only by his personal capabilities.

A major tenet in the political creed of this Nation has been the freedom of the individual. There is, of course, no such thing as absolute freedom possible in an organized society. As someone has wisely put it, "the freedom of a person to swing his fist stops at the tip of another person's nose." All human freedom is necessarily set in a social context and freedom, in practice, is often the product of the social constraints imposed. For example, freedom to drive an automobile is in part the product of such constraints as licensing of drivers and the imposition of traffic laws and regulations. Freedom in an urban and metropolitan society consists in the widening of the range of, and maximization of the opportunities for, individual choice within the framework of a multiplicity of constraints.

Opportunity and freedom have long been recognized elements of the American democratic way of life and had their origin as goals in the preurban society. Both opportunity and freedom, in actuality as distinguished from principle, have in the urban society been impaired by the absence of security. Urbanism as a way of life has through increased interdependence—social, economic, and political—increased the vulnerability of the individual to risks which often negate both his opportunity and his freedom. For example, the vulnerability of the urbanite to unemployment and interruption of his income flow may deprive him in a fundamental sense both of opportunity and freedom. Similarly, the insecurity associated with chronic poverty deprives the person both of opportunity and freedom. It is absurd to contend that opportunity and freedom are available to those steeped in poverty—disproportionately the nonwhite and other minority groups, the aged, the residents of depressed areas, the acute or chronically ill, the physically impaired, or the parents of large numbers of children.

It is to be emphasized that the insecurities being discussed are those that arise, not by reason of the individual refusing to exercise his capabilities in the pursuit of life goals, but, rather, by reason of the play of forces in the urban environment beyond his control. The security that the American order should provide is security against the risks of the highly interdependent and vulnerable society—as manifest in extreme form, for example, through the great depression of the thirties.

Opportunity, freedom, and security must be available to every American, for human dignity is not possible without all of them. And concern with the status of the individual and human dignity is presumably a fundamental aspect of the American way of life.

Finally, it is proposed above that the United States contribute, as far as is feasible, to the attainment of this general goal for all of mankind. Lincoln observed that a nation divided against itself, part slave and part free, could not long endure. It is becoming increasingly evident that a world divided against itself—part affluent and part poor—holds forth a dismal future for mankind. This is not the place to elaborate upon the complexities and dangers of the international order. But the place of the United States in the world order and both the opportunity for, and responsibility of, this Nation for promoting the social goals

of all mankind cannot be ignored. Suffice it to say that this proposition is based not only on considerations of morality and humanity but, also, on longrun national interest and self-interest.

What is proposed is admittedly a far-reaching social goal with tremendous implications for increasing the role of government—Federal, State, and local—in social and economic affairs. It is, in effect, a statement of the objective of the “Great Society” but, obviously, implies much more than anything that has yet been undertaken.

If the general goal set forth above is to be pursued, then a series of subgoals is automatically implied.

### THE SUBGOALS

1. *Socialization and education.*—It has become clear that in a metropolitan society opportunity, freedom, and security cannot be the lot of the individual without adequate and prolonged preparation. Such preparation may be conceived of as consisting of two elements—No. 1, preschool and out-of-school rearing; and No. 2, formal schooling. At the present time the evidence is irrefutable that enormous differences have arisen among various population groupings in the Nation in the quality of both formal education and out-of-school preparation available to them for metropolitanism as a way of life. Consider first variation in the formal schooling available.

The child with a high “preconception IQ” (forgive the neologism) who selects white parents resident in suburbia automatically, by that wise choice, assures himself of monetary input for public education up to several times as great as the child with a low preconception IQ who is unwise enough to select Negro parents who live in an inner city ghetto. And it is relevant to point out that the child with an intermediate preconception IQ who selects white parents who live in a central city assures himself a better education than that available to the Negro ghetto but definitely inferior to that of the white suburban child. Similarly, associated with these variant preconception IQ’s are, also, great differences in quality of basic institutions which play a crucial role in the socialization of the child—quality of family and community—before school and while attending school.

This is not the place to elaborate upon the fact that the inner city ghetto and the educational system of the United States are contributing to the development of a class- and race-stratified society. But it is relevant to emphasize that by reason of the known correlation of education with life chances and with socioeconomic status, education and various social and economic background and community factors cannot be ignored in the pursuit of the proposed general social goal. In fact, adequate socialization, including education, is unquestionably the most important single factor in the preparation of the individual for taking his place in American society with the prospect of opportunity, freedom, and security. Accordingly, it is proposed that the first subgoal be the following:

*It should be the aim of American society to provide each child with a setting for effective socialization and formal education, adequate to enable him to assume the obligations, responsibilities, and rights of American citizenship and to enhance his life chances for opportunity, freedom, and security.*

It should be emphasized that this subgoal requires that American society provide each child, as far as possible, with a wholesome community and family background, as well as access to effective formal schooling.

2. *Maximum longevity and health.*—Opportunity, freedom, and security have no meaning without life and relatively little meaning without health. At the present time there are great differences in both mortality and morbidity among the regions and other geographic areas of the land, and among various population groupings by color or race, socioeconomic status, and other characteristics. Reference is made to mortality and morbidity, indicators of bad health, because there are, as yet, no satisfactory and readily applicable measurements of good health. Generally acceptable and feasible positive metrics of health have yet to be devised. We can only infer the presence of good health by the absence of death or illness.

The differentials in mortality and morbidity reflect, of course, the differences in the life chances or, more specifically, the differences in chances for a healthy and long life, among the various geographic areas and population groupings in the land. Although it is conceivable that biological differences may also play a role, it is safe to ignore biological factors in considering relatively large populations within the Nation, whether classified by geographic area or by personal, racial, or economic characteristics. For, after all, man constitutes only a single species, the product of a long evolutionary process, with great overlappings in gene pools among the various subgroupings of mankind.

In view of the above considerations it is proposed that the second subgoal be the following:

*It should be the aim of American society to provide each inhabitant of this Nation opportunity for maximum length of life in good health so as to permit achievement of the human potential.*

Some clarification of the statement is in order. Maximum length of life alone is not a desirable goal if it means life without health. Longevity with good health is the desideratum and "health" embraces both physical and mental health. Since man does not live in a vacuum, physical and mental health must necessarily be concerned with the physical environment and social milieu in which man lives and functions. Health goals, therefore, are necessarily concerned with the whole man in a physical environment and social milieu; and with the set of interactions between man and his physical and social envelope that affect man's longevity and health in a manner so as to impair or to stimulate the attainment of man's full potential for development.

Specific ways by means of which this subgoal may be attained are spelled out in the recent publication by the National Commission on Community Health Services (*Health is a Community Affair*, Harvard University Press, Cambridge, Mass., 1966.)

3. *Environmental control.*—Adequate control of the environment, physical and social, is a prerequisite for the attainment of the general goal and is closely related, also, to the achievement of the two subgoals presented above. A wholesome community or neighborhood necessarily involves environmental control and so, also, does longevity and health.

This Nation is just beginning to feel a sense of shame and guilt engendered, unfortunately, more by fear than by foresight, about the manner in which air and water have been polluted. In many a community in the United States a glass of water has been a chlorine highball with a detergent head, although recently with chemical progress the detergent head has disappeared. In a growing number of communities polluted air is increasingly a health hazard.

Control of environment, however, involves much more than pure air and pure water. Adequate housing is an essential part of the environment; and so, also, is population density, for man himself, by his numbers and concentration, has made his fellow men a significant part of his environment. Furthermore, social and health goals must reckon with population densities of a deleterious character. It is sobering to realize that if all of the population of the United States lived in accordance with the densities that prevail in Harlem the total population could live within the boundaries of the New York Standard Metropolitan Statistical Area. Excessive human densities constitute both an unwholesome physical environment and social milieu. It is irrefutable that the densities of Harlem are a factor in its social and personal pathology, including increasing alienation. As a first step toward the improvement of the physical environment and the social milieu, decrease in excessive population densities that exist in the inner city ghettos is a must.

The whole man, for physical and mental health, requires opportunity and facilities for rest, relaxation, and recreation. Accordingly, concern with the environment must include provision of adequate recreational facilities to supplement the recreation which an adequate housing and home environment can provide. An especially important element in such a program is provision for satisfactory outdoor recreational facilities within ready access to the metropolitan area, including the inner city.

Adequate control of the physical environment and the social milieu necessarily involves concern with the general problem of city and metropolitan planning and urban design. The city and metropolitan plan must increasingly incorporate social as well as physical planning along the lines of the recently released comprehensive plan for the city of Chicago.

Finally, control of the environment also requires the safeguarding of natural resources with the needs of future generations as well as the present generation in mind.

By reason of these and other considerations the following is proposed as a fourth subgoal:

*To help to achieve the general social goal it should be the aim of American society to plan and to exert the necessary control over the environment, including both the physical environment and the social milieu, and including management of air, water, housing, adverse population densities, recreational facilities and urban design, in general, and natural resources.*

4. *Employment and income maintenance.*—Adequate preparation for metropolitanism as a way of life, longevity and health, and a satisfactory controlled physical environment and social milieu would

avail man little if they were not translated into opportunity for employment and the achievement of an adequate income flow. In an urban society in which a job is a prerequisite to a claim on income, unemployment deprives the person of any meaningful opportunity, freedom, and security.

The Federal Government has, in effect, recognized the significance of opportunity for employment in an urban order in adopting the Employment Act of 1946. In this act the Government has pledged itself to use its powers and influence toward the maintenance of a full-employment economy. But despite Government programs which have done much to eliminate drastic fluctuations in employment levels, large segments of the population are chronically subject to relatively high unemployment levels. High levels of unemployment characterize the groups which have not had opportunity for adequate preparation for urban living—the Negro American, recent immigrants, and recent immigrants to metropolitan areas. High unemployment levels are also found among youth and the aged. The time has come, therefore, to go beyond the Employment Act of 1946.

Since an income flow is a prerequisite to life in the contemporary urban order, and employment is the preponderant and most desirable way to achieve income, it is proposed that a fourth subgoal be the following:

*It should be the aim of American society to provide every person with opportunity for employment commensurate with his education and skill, and to assure him of an adequate flow of income if such employment cannot be provided, preferably for services performed.*

This means, of course, that if the private sector cannot generate enough employment to keep unemployment to a reasonably low level the Government must undertake to supplement the private sector, as necessary. Two programs are indicated, especially to meet the problems of the poor, disproportionately the Negro. One is the development of labor intensive projects to permit the establishment of an income flow for services performed. The other is the adoption of a family-allowance program of the type now prevalent in all other industrial societies in the world.

5. *Family planning.*—It cannot be contradicted that poverty and substandard family and community life breeds multitudes of children that begets poverty and substandard family and community life. The poor family like the poor nation can afford much less input per child for socialization and education if there are many, as compared with fewer, children.

Moreover, high fertility exacts a high national price in many other respects. In contributing to high rates of population growth and accompanying increased population concentration, a high birth rate exacerbates, if it does not produce, many contemporary problems. For example, the postwar baby boom has aggravated such current problems as delinquency and crime, intergroup tensions, deteriorating educational quality, youth and total unemployment, automotive accident rates, air and water pollution, the commuter crisis, and shortages in housing supply.

In consequence of these and other considerations the following is proposed as a fifth subgoal:

*It should be the aim of American society to provide every couple with the motivation and incentive as well as the knowledge and means to determine family size—the number of children to be born.*

Such a policy would be providing the poor and uneducated families in the country with the same right that the more affluent and educated already possess. Fortunately, although much remains to be done, the trend is now in this direction.

6. *Administration of justice.*—A democratic society implies equality before the law and nondiscrimination in the administration of justice. Yet the fact is that equal justice is not available to all citizens of the United States. There is ample evidence that many minority groups, especially the poor and uneducated, do not enjoy equality before the law. The Negro, the Puerto Rican, the Appalachian white and the Mexican are among the minority groups who have often been subjected to harsh police action and intimidation in the exercise of their civil rights both by public authorities and private vigilante and hate organizations.

Many of the inequalities in the administration of justice in the United States stem from historical factors relating to the status of the Negro and minority groups, the general economic, social, and political underdevelopment of the South, the conflict of cultures, attitudes, and peoples in rapidly growing and heterogeneous urban and metropolitan areas, and the frictions originating in the complexities of the Federal, State, and local levels in the administration of justice.

As an essential subgoal in a democratic society:

*It should be the aim of American society to assure equality to all in the administration of justice, and it should be the policy of the Federal Government to intervene as necessary, and as provided for in the Constitution and in law, in the administration of State and local justice when it becomes discriminatory in any way.*

7. *Rationalization of governance.*—The rapid urbanization and metropolitanization of this Nation has led to many “cultural lags” in its governance. Conditions close to governmental chaos characterize many of our metropolitan areas with duplicating, overlapping, and often conflicting local jurisdictions. Especially acute, with recent changes in the population composition, is the discrepancy between the increasing need for public services of inner city populations and the decreasing tax base of municipalities as higher income groups and industry spill over into suburbia. Many current problems, including those of quality and integration in education, in housing and in employment defy solution short of a metropolitan area approach.

The recent Supreme Court decisions applying the “one-man, one-vote” rule will tend to eliminate the malapportionment which has characterized State legislatures and the House of Representatives in the Congress throughout this century. Even this fundamental requirement of a democratic society is, however, being resisted by the remnants of 19th century power elements.

The tax structure of the Nation is chaotic as a result of the accumulation of revenue-raising devices in Federal, State, and local



governments without adequate coordination and integration. There is a great need to rationalize governmental structure and procedures on all levels and more effectively to coordinate intergovernmental relationships. Perhaps nowhere is the need for such rationalization more evident than in the Federal-State-municipal interrelations. The failure of State governments, controlled by malapportioned State legislatures, to meet the needs of urban and metropolitan populations has led to direct Federal-municipal relations and tended to make State governments increasingly the fifth wheel of the American system of governance. For example, it was the default of the State government in meeting urban needs that led to such Federal programs as public housing, urban renewal, highways and expressways, mass transportation, civil rights, and education.

Finally, it should be noted that a combination of historical events has led to abuses of the principle of majority rule in the outmoded seniority system of the Congress and State legislatures and the operation of the filibuster in the Senate of the United States.

*It should be the aim of American society to rationalize Federal, State, and local governmental structures and procedure, including a more rational allocation of sources of revenue among the different levels of government and the maintenance of basic democratic principles, including representative government and majority rule.*

8. *Cultural and economic development.*—This Nation has been history's most exciting example of economic growth and of great, if uneven, development of science, technology, art, and mass culture. It is to the everlasting credit of the free market, free enterprise system that these developments have occurred. It has become increasingly evident, however, that the increased complexity of metropolitan life and of the arts and sciences requires governmental policies and programs for the desired type and rate of growth to continue. Without further elaboration here it is proposed as an eighth subgoal that:

*It should be the policy of the United States to promote economic growth and the development of science, technology, the arts and mass culture and, thus, to provide a milieu in which opportunity, freedom, and security may be more meaningful in the attainment of the human potential.*

9. *World order.*—Never before in man's history has the future of the world held forth as miserable a prospect as now exists under the most dire possible developments. The availability of the bomb, the troubled international outlook including the cold war between East and West, and potentially the conflict between "have" and "have not" nations in a North-South confrontation, and the approaching crisis in world overpopulation could combine to make mankind's future dismal indeed.

Just as the emergence of metropolitan society has been accompanied by increased vulnerability and risk within the Nation, so has the development of technology and the conquest of time and space precipitated an increasingly vulnerable world.

Again without further elaboration it is proposed as a ninth subgoal that:

*It should be the policy of the United States to contribute to the development of a peaceful world order—a world of optimal economic, social, and political interrelationships; and to strive toward this aim*

*by maximum participation in international organizations, including the United Nations and the specialized agencies.*

Needless to say, this goal includes continuation and expansion of foreign aid, continuing efforts toward free world trade, and continued efforts to achieve world disarmament.

#### CONCLUDING OBSERVATIONS

It has not been possible within the limits of this paper to attempt both a comprehensive and detailed statement of social goals. The basic transformations which American society has undergone historically and the need for rational decisionmaking or planning have been highlighted as a product of the emergence of metropolitanism as a way of life and the shrinking world order. Within this framework a general social goal and a number of significant subgoals have been set.

Great stress has been placed throughout this paper on the rationale and need for increased Government intervention to accelerate the attainment of the general social goals and the specific subgoals. This stress is commensurate with the contemporary setting and requirements. However, it is equally important to stress that Government interventionism is not intended to replace but, rather to complement and supplement the role of the private sector. American society with all its deficiencies has made tremendous advances. Government interventionism of the types proposed can and should be achieved without breaking down the incentive and motivation which spur initiative and creativity.

This will admittedly take some doing, the attitudes of many Americans being what they are. But the task is not an impossible one, as the experience of other countries indicates. It will not be unlike the task undertaken by Franklin D. Roosevelt in his New Deal, who faced bitter and unrelenting opposition from many who subsequently came to praise the programs and the floors and the ceilings which he introduced into the conduct of business in the United States. Many elements of the community, for example, who were resistant to the encroachment of government came to understand that the New Deal saved them from themselves and from an outmoded system; and they came to prosper as well or better than ever with government interventionism. The same can happen in other realms. It is, therefore, proposed as a general fundamental and governing principle that:

*Government should do all that it can to maximize the areas of freedom of operation in the private sector consistent with the general goal of providing each inhabitant of this Nation with opportunity, freedom, and security to enable him to achieve optimal development of the human potential.*

The adoption and implementation of the social goals proposed above would, undoubtedly, constitute the best investment the United States could possibly make in her most precious possession—her human resources. By and large, this Nation has provided two major contributions to the history of man; one, an unparalleled example of the ability to achieve unity out of a diversity of human stocks; and two, an example of an unprecedented open society, a society in which each person

no matter how humble his origin has been able to rise to whatever level—in the economic, social, or political spheres—his own capacity permitted.

But it has become startlingly clear that these major achievements have, in the main, been restricted to white-skinned Americans. This Nation is now at a crossroads and must, in a most momentous decision, determine whether opportunity for full participation in American society is to be made available to dark-skinned Americans. Moreover, the plight of our nonwhite minorities has helped to disclose similar conditions among many whites.

The solution of the problem of the white poor is largely an economic matter—a matter of increased investment in human resources. The solution of the problem of the nonwhite poor, especially of the Negro American, requires more than economic measures. Increased investment is a necessary but not a sufficient condition for solving the problem of developing Negro human resources. For the Negro American has been, and is, not only the victim of inadequate investment but, also, of vicious racism. The remedy for prejudice and bigotry is acceptance—and programs of acceptance as well as of investment are therefore required. Examples of programs of acceptance include open housing legislation, integrated schooling, integrated employment and, in general, sharing of the life space. Adoption of the proposed goals would constitute a major step in the direction both of increasing investment in human resources and acceptance of all residents of this Nation as fellow Americans.

# NATIONAL PRIORITIES, MANPOWER NEEDS, AND THE IMPACT OF DIMINISHED DEFENSE PURCHASES FOR VIETNAM

BY LEONARD A. LECHT\*

## I. A SUMMARY VIEW

Our Nation's priorities, and the resources required for their pursuit, can significantly affect manpower requirements and employment opportunities.<sup>1</sup> The impact of the space program in increasing the demand for scientists and engineers, or of medicare and medicaid in enlarging manpower needs in the health occupations offer recent, and sometimes striking illustrations. Following an end to the war in Vietnam, the release of resources now utilized for defense would expand the areas of choice available to the Nation in the pursuit of its domestic social goals.<sup>2</sup> These shifts in emphasis in national priorities could have important consequences for the volume of employment and for manpower needs in a variety of occupations.

There are many possibilities for reemploying the persons at work in defense industries or in the Armed Forces in the event hostilities in Vietnam were to end or their scale were significantly reduced. The manpower and other resources no longer required for defense could be utilized in rebuilding the Nation's cities, in increasing overall standards of living, in expanding research and development in fields such as oceanics or water desalination, in expanding our industrial plant, in coping more effectively with poverty, and in other areas. The manpower implications of alternative uses of productive resources released through reductions in military expenditures have been discussed by Prof. Wassily Leontief in his testimony, early in 1967, before the Joint Economic Committee.<sup>3</sup> This paper attempts to utilize the framework of goals analysis, as developed by the National Planning Association, to relate the loss of employment because of a lesser level of military effort in Vietnam to alternative opportunities for increasing employment through more active pursuit of nondefense national objectives.

The dimensions of the changes in employment likely to follow a major tapering off, or an end of the war in Vietnam can be illustrated in terms of an assumed \$20 billion decline in defense purchases from industry in 1969. To indicate the manpower impacts of greater em-

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<sup>1</sup>The findings in this report are based on research directed by Mr. Norman Frumkin of the National Planning Association's staff for the Manpower Administration of the U.S. Department of Labor, and on a summary of these findings presented to the U.S. Chamber of Commerce.

<sup>2</sup>President Johnson has stated, in the 1967 *Economic Report*, that "when hostilities do end, \* \* \* the resources now being claimed by the war can be diverted to peaceful uses \* \* \* and can hasten the attainment of the great goals upon which we have set our sights." *Economic Report of the President*, January 1967, p. 23.

<sup>3</sup>Testimony, Dr. Wassily Leontief, "Economic Effect of Vietnam Spending," Hearings, Joint Economic Committee, Congress of the United States, April 1967.

phasis on "civilian economy" priorities, tax reductions and increases in public spending for social welfare and urban development are considered as alternative uses for the resources no longer required in national defense. The tax reductions would involve a \$10 billion decrease in personal and business income taxes (two-thirds in personal and one-third in business taxes), combined with a \$10 billion increase in public outlays equally divided between spending to enlarge social welfare transfer payments, and spending to expand and rehabilitate urban facilities.

The alternatives selected have been chosen, in part, as in the case of social welfare and urban development, because they represent Great Society objectives likely to receive consideration for greater emphasis when defense expenditures begin to substantially decline. They have also been selected, e.g., the tax reductions, because they reflect recent thinking on the role of public policy in maintaining a high level of employment. The offset programs considered would operate primarily by increasing economic activity in the private sector. Since the social welfare payments add to personal income and consumer expenditures, three-fourths of the spending resulting from the offset policies would be directed into the private sector, and one-fourth into the public sector of the economy.

The overall implications for employment of this transfer of expenditures are summarized as follows:<sup>4</sup>

1. The shift in emphasis from defense to civilian economy objectives is expected to create 325,000 more employment opportunities in industry than the employment eliminated because of the decline in defense purchases.

2. All told, however, the employment opportunities created would be an estimated 375,000 less than the number of persons expected to be seeking work because of the end of the war. The surplus of jobseekers is largely attributable to growth in the civilian labor force as persons released from the Armed Forces or recent graduates from school who would otherwise have been drafted seek jobs in the civilian economy.

3. The surplus of jobseekers could be significantly reduced by encouraging veterans and persons who had earlier been subject to the draft to increase their earning capacity and employability by taking advantage of opportunities for education and training rather than seeking immediate employment, frequently at poorly paid entrance jobs.

4. The changes anticipated in economic activity because of the transfer of expenditures could be expected to lead to losses in employment for semiskilled operatives and for some professional workers, e.g., engineers, and to greater opportunities for service workers, managers and proprietors, building trades craftsmen, and construction laborers.

5. The net effect of the changes considered would probably lead to a more-than-proportionate growth in employment opportunities in the private sector for nonwhites and for women. Nonwhites, for example, would represent an estimated 8 percent of the employees released by the cutbacks in defense purchases. They are projected to make up 11 percent of the employees hired because of the offset programs.

<sup>4</sup>For simplicity in illustrating manpower impacts, the decline in defense orders is considered as taking place over a 12-month period. In practice, it would be more reasonable to expect that cutbacks of these dimensions took place over an 18-month or 2-year period.

The civilian labor force (age 14 and over) in 1969 is expected to exceed 80 million. An increase of 375,000 jobseekers without jobs would represent an increase in unemployment amounting to less than one-half of 1 percent. However, the reduction in defense orders and employment would be concentrated in a small number of industries such as aircraft and ordnance, and in some States more than in others, California for example. Much of the economic dislocation accompanying the cutback would grow out of this uneven diffusion of its effects.

## II. GOALS ANALYSIS AND THE MANPOWER ESTIMATES

The estimates of the manpower impacts of the shift from a more to a less defense-oriented economy are based on research undertaken by the National Planning Association. This research has involved a 4-year program to establish quantitative standards for national goals and to project the dollar costs, the manpower requirements, and the resources likely to be available for achieving them in the 1970's.

Goals are sometimes regarded as abstractions divorced from everyday practice. Yet all of us are involved with the Nation's goals as citizens, employees, or businessmen, and all of us have notions, more or less specific, of what our goals and priorities ought to be. As citizens, we are called upon to assess priorities in education by voting for or against bond issues or tax increases, or for candidates seeking election to local school boards. The markets and earnings prospects of business firms and job opportunities for employees are influenced, often decisively, by the manner in which changes in national priorities affect spending for defense or the space program, or for the construction of schools, hospitals, and highways. Where and how we assign priorities in a democracy is determined by our political choices, and by the decisions of firms, unions, and consumers rather than by experts. Goals analysis attempts to contribute to these decisions by increasing the information available for making choices.

NPA's goals studies have been concerned with 16 areas of activity covering virtually all aspects of the Nation's economy, private and public. In 1960, the President's Commission on National Goals listed a series of goals in 15 areas of national activity.<sup>5</sup> These were increased to 16 in 1961, with the addition of our national objectives in space exploration. Later, the needs in each of the goal areas and standards for their achievement were formulated by the National Planning Association from special studies, recommendations of bodies such as the National Academy of Sciences, legislative hearings, legislation, and general national policy. Typical examples are the cost of eliminating or rehabilitating the substandard housing expected to remain in the housing inventory in the 1970's, or the expenditures necessary to support the 77,000 health research workers the National Institutes of Health estimate will be needed in the next decade. The standards for the goals reflect current developments in each area, and individually they represent levels of achievement regarded as reasonable and within reach on the basis of present knowledge and in a free enterprise system.

The 16 goal areas considered in the NPA study are listed in table 1. The table describes the actual expenditures for each of the goals in

<sup>5</sup> See *Goals for Americans, The Report of the President's Commission on National Goals*, Prentice-Hall, 1960.

1962—the base year for the NPA study—and the estimated expenditures for the “aspiration goals” (that is, for achieving the standards) in 1975.

Some of the 16 goals, e.g., consumer expenditures or housing, are directly concerned with individual well-being, while others such as manpower retraining are aimed at removing the adverse effects of inadequate preparation for contemporary life. Still others, the private plant and equipment goal for example, make their contribution by increasing the productive capacity available to provide the additional output needed to pursue the other goals.

TABLE 1.—*Expenditures for individual goals, 1962, and projected 1975*<sup>1</sup>

[Dollar amounts are millions of 1964 dollars]

Goal area	Expenditures in 1962	Projected expenditures for aspiration goals in 1975 <sup>2</sup>	Percent increase in expenditures 1962 to 1975 <sup>3</sup>
Agriculture.....	\$7,300	\$9,300	20
Area redevelopment.....	400	1,000	186
Consumer expenditures.....	364,800	674,400	85
Education.....	31,200	86,000	176
Health.....	34,000	89,800	164
Housing.....	30,900	65,000	111
International aid.....	5,500	12,500	126
Manpower retraining.....	100	3,100	(4)
National defense.....	53,800	70,700	32
Natural resources.....	6,000	17,100	183
Private plant and equipment.....	50,100	155,000	209
Research and development.....	17,300	40,000	131
Social welfare.....	39,100	94,400	142
Space.....	3,400	9,500	181
Transportation.....	35,900	76,600	113
Urban development.....	67,700	163,700	102
Gross total.....	747,400	1,541,100	-----
Minus double counting and transfer adjustments <sup>4</sup> .....	174,100	379,600	-----
Net cost of goals.....	573,300	1,161,600	103

<sup>1</sup> Source: Lecht, Leonard A., *Goals, Priorities, and Dollars—The Next Decade*, the Free Press, 1966, tables 1-2. The estimates in this source are in 1962 dollars. They are expressed in 1964 dollars in table 1.

<sup>2</sup> For a brief description of the standard for each goal, see app. 1.

<sup>3</sup> The percentage increases refer to the unrounded expenditures for each goal.

<sup>4</sup> Since the Federal retraining programs were just getting underway in 1962, a percentage increase computed from 1962 as the base would be misleading.

<sup>5</sup> The adjustment for double counting occurs because parts of the costs of some goals are also part of the cost of other goals. Spending for new housing to replace substandard housing in the central cities, for example, is part of the cost of the housing goal. It also figures as part of the outlays for rebuilding cities, and, therefore, these expenditures are also included in the urban development goal.

The limiting factor in realizing the Nation's objectives in the next decade will be the volume of output the economy will be capable of producing. Assuming reasonably optimistic but feasible growth in GNP over the next decade—growth at a sustained rate averaging about 4.5 percent a year—the gross national product should increase (in 1964 dollars) to just over a trillion dollars, to \$1,010 billion, by 1975. A GNP of these dimensions would be about \$435 billion greater than in 1962, and almost \$390 billion greater than in 1964. Increases in output of this magnitude may appear to be so enormous as to suggest that, as a nation, we could do whatever we thought desirable in the next decade to raise overall living standards, to improve education, to rebuild cities, to expand space exploration, or for other purposes. However, between 1962 and 1975 the population is expected to grow by 39 million, and 19 million more persons are likely to be in the civilian

labor force. There will be an estimated 13.5 million more families, and 15 million more students will probably be enrolled in schools at all levels of education. Roughly half of the projected increase in GNP between 1962 and 1975, approximately \$220 billion, would be absorbed in maintaining present standards of living, education, health, and housing for a larger population, and also in providing the additional productive capacity needed to produce a trillion dollar level of output in the mid-1970's.

After allowing for this preemption of resources, the anticipated volume of output in the mid-1970's would still be over \$200 billion more than in 1962. These additional resources would make it possible to raise standards of living, and to make far-reaching progress toward achieving agreed-upon improvements in education, health, social welfare, research and development, or for other purposes. While this growth in output would be sufficient to make substantial advances in realizing national objectives in most, if not all, areas, even a trillion dollar GNP, in all likelihood, would be insufficient to simultaneously attain all the improvements included in the standards for the 16 goals by 1975. All told, the \$1.16 trillion estimated as their cost would be \$150 billion more than the anticipated GNP in a virtually full-employment economy with a 4.5 percent annual growth rate in output over the next decade. Hence, the need for choices—for priorities—based on an assessment of resources, costs, and benefits.

Since completing its study of the dollar costs of national goals, the National Planning Association has been conducting research for the Manpower Administration of the U.S. Department of Labor to translate the dollar costs of the 16 goals into the manpower their pursuit would require in some 80-odd occupations. These occupations cover virtually the entire labor force. This study, *Manpower Requirements for National Objectives in the 1970's*, indicates the direct employment in each industry to produce the goods and services required by the individual goals, and the indirect employment in the industries supplying inputs to the firms producing these goods and services. (See app. table 2.) The findings of this research suggest that, so long as goals similar to those considered in the study represent the Nation's objectives in the coming decade, the problem for the economy is likely to be an insufficiency rather than a surplus of manpower. Resulting manpower problems, therefore, are likely to be those associated with improving education and training, better utilization of existing manpower potentials, and increasing mobility, rather than the issues posed by a high rate of unemployment and underemployment. These findings also make it apparent that the pattern of occupational requirements in the next 5 or 10 years is likely to be significantly influenced by our society's choice of priorities. Concentration on objectives in education and health, for example, can be expected primarily to increase manpower needs for professional and technical, and for service workers. Assigning a heavy emphasis to rebuilding cities, on the other hand, would make for a sizable growth in employment opportunities for blue collar workers; i.e., for craftsmen, operatives, and laborers.

NPA's research in manpower requirements for national objectives provides the framework for assessing the potential impacts of the shifts in national priorities anticipated with an end, or a major taper-



ing off, of the war in Vietnam. In terms of the goals analysis, the shifts considered would involve a lesser priority and diminished resource commitments for one of the 16 goals, the national defense goal. A higher priority would be attached to the goals concerned with individual well-being; e.g., consumer expenditures and housing; with expanding our capacity to produce, the private plant and equipment goal; in coping with poverty, the social welfare goal; and with the public facility requirements to enable people to live, work, learn, move about, and play in American cities, the public component of the urban development goal.

### III. THE OVERALL ECONOMIC FRAMEWORK

The overall hypothesis in this paper is that the conversion from a wartime to a postwar economy involves significant changes in the Nation's priorities. In a period of war—even a limited war—the world's most affluent society finds it difficult to provide the resources required for its defense objectives, and also to supply the resources needed for such purposes as rebuilding cities or coping with poverty. In shifting to a peacetime economy, greater progress in pursuit of civilian economy goals becomes a means for improving the quality of life, for maintaining the pace of economic growth, and also for reabsorbing veterans, released defense workers, and others, into useful employment.

The growth in employment or unemployment resulting from a \$20 billion reduction in defense orders offset by an equivalent increase in spending for civilian economy goals can be expected to reflect the state of the economy at the time the shifts in priorities and expenditures are undertaken. The changes in employment considered are assumed to take place in an economic environment otherwise characterized by a high employment level; i.e., an unemployment rate of 4 percent of the civilian labor force or somewhat less, and by reasonably rapid but non-inflationary growth in the gross national product. This is taken to mean a GNP growth rate of slightly more than 6 percent a year made up of an increase in output averaging between 4 and 4½ percent and price increases at an annual rate of 2 percent. On the basis stated, GNP is expected to rise, in current dollars, from approximately \$780 billion in 1967 to about \$880 billion in 1969. Consistent with these anticipations, output per employee is projected to increase by 2½ percent a year, and manufacturing plant is expected to be utilized at 90 percent of capacity.<sup>6</sup>

The precise level of defense spending for Vietnam in the coming year is unknown at present. Allowing for some expansion in the military effort implied by the decisions taken in 1967 to add to the Armed Forces engaged in that conflict, total defense outlays for Vietnam in the last half of 1968 are projected to reach an annual rate in the range of \$27 to \$30 billion. The \$20 billion listed for the cutback in defense orders is a reasonable estimate chosen to illustrate the manpower problems likely to accompany an end of the war in Vietnam. This figure probably somewhat overstates the reduction in defense production in the year following the termination of hostilities—the time period considered in this report. Some of the cutback in purchases from

<sup>6</sup> In terms of GNP per man-hour, another conventional measure of productivity, output is expected to increase at an annual rate of 3 percent a year.

the private sector would not affect production and, consequently, employment, until after the 12-month period were over. A decline in production of \$18.9 billion (in 1969 dollars) is anticipated as the actual decline within the period resulting from a \$20 billion cutback in orders. The total decline in defense spending would probably exceed \$20 billion because reductions in military and in Department of Defense civilian employee payrolls would accompany the cutbacks in orders from industry.<sup>7</sup> Taking the drop in these payrolls into account, defense expenditures would be likely to fall by an additional \$4 billion in 1969, making for a total decline in actual outlays for defense of about \$23 billion.

A \$23 billion decline in defense expenditures would amount to 2.6 percent of the GNP anticipated in 1969. On a relative basis, this decline is similar to the post-Korean experience. Defense outlays declined by \$10 billion in the 2 years following the peak level of military spending in 1953. This was equivalent to 2.7 percent of the \$365 billion gross national product in 1953.

#### IV. THE IMPLICATIONS OF THE SHIFT IN PRIORITIES—THE EXPENDITURES IMPACT

While a \$20 billion cutback in defense orders would have an impact on the overall economy amounting to about 3 percent of GNP, a small number of industries would be significantly and directly affected. Cutbacks in purchases of aircraft, ordnance, missiles, and weapons are estimated to make up 60 percent of the total reduction in orders from industry. At the other extreme, it is likely that spending for defense-related research and development would scarcely decline because of the changed situation in Vietnam.

The distribution of the cutback in defense orders by industry is summarized in table 2.

TABLE 2.—*Estimated distribution of a \$20,000,000,000 cutback in defense orders by industry*

<i>Industry</i>	<i>Percent of total</i>
Aircraft -----	32
Missiles, ordnance, and weapons-----	28
Communications and electronic equipment-----	10
Petroleum and chemicals-----	5
Shipbuilding -----	5
Construction -----	4
Food -----	3
Instruments -----	3
Vehicles -----	2
All other-----	8
<b>Total -----</b>	<b>100</b>

Four-fifths of the reductions in defense purchases from industry are in one major sector of the private economy—the manufacture of durable goods. This sector, and the industries supplying inputs to it, such as the aluminum, copper, special metals, and steel industries, accordingly, would bear the brunt of the adjustment to the downturn in defense outlays.

<sup>7</sup> This decline in payrolls would primarily reduce expenditures in the consumer goods industries. Lack of data on the distribution of expenditures for consumer goods by servicemen whose basic requirements for food, shelter, clothing, and medical care are provided by the Government is the reason for this omission.

The tax reductions and the greater public expenditures in the offset programs would largely affect other industries—primarily the industries serving consumers and construction. Most of the growth in disposable personal income resulting from lower tax rates and larger social welfare benefit payments would become translated into greater expenditures for consumer goods and services. A considerably smaller part would be utilized to purchase new homes, or for additions and alterations to existing ones. The public outlays for urban facilities would largely represent grants from the Federal to State and local governments for the construction of schools, hospitals, civic centers, mass transit systems, recreational and cultural facilities, sewer systems, facilities to store and purify water, or for industrial parks. Business firms are projected to spend \$2 billion of the \$3.3 billion increase in earnings after taxes for additional plant and equipment. The remainder would be utilized to increase corporate dividends or added to capital surplus.

Part of the \$20 billion increase in disposable income generated by the pursuit of the civilian economy goals would be saved rather than spent. Personal and business savings are estimated to total \$1.1 billion. The distribution of the expenditures by type of spending is described in table 3.

Close to three-fifths of the growth in expenditures resulting from the offset programs would be made up of spending for consumer goods. The remaining two-fifths would represent outlays for public and private construction.

TABLE 3.—*Distribution of expenditures resulting from Government policies to offset \$20,000,000,000 decline in defense orders*

Type of spending	Amount (in billions of 1969 dollars)	Percent of total
From tax cuts.....	9.0	48
Consumer expenditures.....	6.0	32
Residential construction.....	1.0	5
Private plant and equipment.....	2.0	11
From greater public outlays.....	9.9	52
Consumer expenditures.....	4.9	26
Public construction.....	5.0	26
Total.....	18.9	100

Some of the offset policies would lead to more rapid increases in expenditures and in employment than others. The greater spending for consumer goods could be expected to enter the income stream relatively quickly. This would repeat the experience in 1964 and 1965 when consumer outlays rose quickly following the reduction in personal income taxes. If an ample supply of mortgage credit is available, outlays for private residential construction would also be likely to increase in the early part of the transition. Time-consuming contract negotiations and administrative approvals would be likely to delay the capital improvements for urban development to the later stages of this period. Similar delays, although probably to a lesser extent, could be expected before the reduction in business income taxes

was followed by substantial orders for plant and equipment. On balance, the large role of consumer expenditures in the total would stimulate a quick impact from the offset programs to market demand.

#### V. THE IMPLICATIONS OF THE SHIFT IN PRIORITIES—THE MANPOWER IMPACT

Within industry the offset programs are expected to create 325,000 more job openings than the jobs lost because of the cutbacks in defense orders. However, the overall impact of the changes considered in connection with the end of the war would be to increase unemployment by 375,000. The excess of jobseekers over job openings would be primarily attributable to growth in the civilian labor force brought about by reduced military and other governmental manpower requirements.

Most of the veterans released from the Armed Forces are likely to seek civilian jobs. Many young persons just out of school, or still in school, would try to obtain employment rather than prepare to enter the military or, in some cases, to continue their deferments by remaining in school. A total of 600,000 persons are projected to be added to the civilian labor force for these reasons. Over 100,000 additional jobseekers would be in the labor market attempting to find new positions to replace jobs lost because of reductions in force in Department of Defense civilian employment. The greater flow of persons into the job market from all of these sources explains the anticipated increase in the number of unemployed.

The major elements entering into this estimate of the employment impact associated with the ending of the hostilities in Vietnam are presented in table 4.

TABLE 4.—*Estimated employment impact of anticipated shifts in national priorities accompanying end of war in Vietnam*

[In thousands of employees]

Source of change	Additional persons seeking jobs	New jobs created	Net change in jobseekers without jobs
A. In industry due to—			
1. Cutback in defense outlays.....	1,359	-----	-----
2. Tax cuts and increased spending for social welfare and urban development.....	-----	1,685	-----
3. Net change in industry.....	-----	-----	-326
B. In public sector due to—			
1. Military personnel discharged from Armed Forces.....	500	-----	-----
Minus former military personnel in full-time education or training.....	100	-----	-----
Total, ex-military personnel seeking employment.....	400	-----	-----
2. Civilian employees released by Department of Defense <sup>1</sup> .....	150	-----	-----
3. Public employees added because of larger social welfare and urban development programs.....	-----	50	-----
4. Net change in public sector.....	-----	-----	+500
C. Additional persons in civilian labor force because of lower draft calls and voluntary enlistments.....	200	-----	+200
D. Net change in total employment.....	2,109	1,735	+374

<sup>1</sup> This includes government employment corresponding to the census category, "public administration." It excludes Government civilian employment in industrial activities for which there are counterparts in the private economy.

The net increase in employment within industry would occur because of the shift in expenditures from defense-related, largely durable goods industries to industries serving consumers and to the construction industry. The defense industries employ fewer persons per billion dollars of production than the consumer goods or the construction industries. On an average, the industries affected by the cutback are estimated to reduce employment by 72,000 for each billion dollar cutback in production (in 1969 dollars). The industries which would increase their output because of the offset programs are expected to add approximately 88,000 workers per billion dollar increase in production.

With the currently available information, detailed occupational estimates can be presented only for the employment changes within industry. This includes the employment changes within the private sector and, to maintain consistency with the census occupational classifications, it also includes government civilian employment in industrial sectors for which there are counterparts in the private economy; for example, in shipbuilding.

The distribution of the employment impact in industry is indicated by major occupational groups in table 5. Comparable information by industry is listed in appendix table 3 and by detailed occupation in appendix table 4.

TABLE 5.—*Estimated occupational impact in industry of shifts in national priorities accompanying ending of war in Vietnam*

[In thousands of workers]

Occupational group	Persons released from employment by cutback in defense orders	New jobs created by offset programs	Net change in employment
A. White-collar workers.....	587	699	112
Professional and technical workers.....	232	177	- 55
Managers, officials, and proprietors.....	97	184	87
Clerical workers.....	200	234	34
Sales workers.....	58	104	46
B. Blue-collar workers.....	691	727	36
Craftsmen and foremen.....	252	324	72
Operatives.....	387	291	-96
Laborers.....	52	112	60
C. Service workers.....	50	179	129
Private household workers.....	---	45	45
Other service workers.....	50	134	84
D. Farm occupations.....	30	82	52
E. Total.....	1,359	1,685	326

NOTE.—Detail may not add to totals due to rounding.

The global estimates of new jobs created or of additional persons seeking jobs obscure the fact that the job skills of the persons released from the defense industries would often be different from the skills required in the new job openings. The defense-related industries employ many more engineers, technicians, and semiskilled operatives than are required to produce an output of an equivalent value in the industries serving consumers or in construction. The largest decrease in employment, accordingly, is listed for operatives. Almost three-tenths of the employees released because of the decline in defense pur-

chases would be operatives, while less than a fifth of the new jobs created are expected to represent openings for these workers. Although total employment is projected to decline for professional and technical workers, modest increases could be anticipated in most occupations in this group other than for engineers and technicians. The largest increase in table 5 is listed for service workers. Much of this employment growth would represent openings for less skilled employees such as private household workers, hospital attendants, or waiters and counterworkers. Most of the expansion in employment in the managers and proprietors group would be likely to occur in service industries, in retail and wholesale trade, in finance, insurance, and real estate, and in construction. The job openings for craftsmen and laborers would largely represent opportunities in the skilled building trades, or for laborers generated by the large volume of construction expenditures in the offset programs.

It is likely that employment opportunities for nonwhites and for women in industry would experience a more-than-proportionate increase as a result of the transition to a less-defense-oriented economy. (See appendix tables 5 and 6.) These changes are expected because nonwhites and women are more heavily represented in occupations likely to grow because of the offset programs than they are in the occupations in which employment would decline due to the defense cutbacks. On the basis of their overall representation in each occupation, an estimated 8 percent of the employees released from the defense industries would be nonwhites. On the same basis, they would make up 11 percent of the new job openings created by the Government's policies. However, unless large-scale programs for retraining, upgrading, and job placement for nonwhite workers were instituted to change their representation in individual occupations, most of this projected employment gain would be in less skilled occupations; that is, as construction laborers, private household workers, or in the lower paid service occupations. Offsetting the potential gains in employment, account must be taken of the tendency of nonwhite employees to be low-seniority employees in many industries, and, therefore, likely to be released in greater numbers than is indicated by their representation in these industries. The optimistic implications for nonwhite employment in the percentage comparisons must also be tempered by consideration of the growth in the nonwhite civilian labor force as large numbers of veterans, white and nonwhite, are released from the Armed Forces.

Similarly, on the basis of their proportionate representation in each occupation, women would make up less than a fourth of the workers involved in the reduction in employment in the defense industries. They would comprise three-tenths of the employment in the job openings generated by the new programs.

## VI. IMPLICATIONS FOR POLICY PLANNING

The estimates of job openings in this paper refer to potential employment. The scope of the potentials would reflect the particular goals selected as high-priority national objectives. The extent to which these prospective opportunities were transformed into actual employment would depend, in part, on the manpower policies adopted by government, industry, and labor. In addition, the overall rate of

growth in the economy at the time the shifts in priorities and expenditures occur can be expected to influence the number of persons released from the defense industries or the Armed Forces who are absorbed back into civilian employment.

The goals selected to illustrate the manpower impacts of greater outlays in the public sector, social welfare, and urban development, make up only two of a number of possible options. Concentration on the pursuit of other goals, or changes in the distribution of the tax cut between reductions in personal and in business income taxes, would have a bearing on the total employment generated by the offset programs and on its occupational composition. Greater emphasis on priorities in health and education, to cite two other alternatives, would lead to larger increases in the employment created per billion dollars of expenditures, increases between a fifth and a tenth greater than for the social welfare and urban development goals. Concentration on health and education would also result in a considerably greater demand for many types of professional workers and service employees than is indicated in the projections for the nondefense priorities considered in table 5. If suitable training and relocation programs were available to match jobseekers and job openings, an increase in expenditures for health and education of \$3 to \$4 billion a year, in addition to the offset measures considered, could absorb the equivalent of most of the residual unemployment attributable to increase in the civilian labor force because of the transition to a peacetime economy.

Effective manpower planning to implement the shifts in priorities under consideration would require policies to facilitate the mobility of labor, to ease barriers to entry in a number of skilled occupations, and to expand programs in education and training for veterans and others. The loss of employment associated with the transition to a peacetime economy would be likely to exceed the one-half of 1-percent rate anticipated for the entire labor force in the States heavily dependent on defense production. In March 1966, for example, 6½ percent of the labor force in California was employed in defense production in prime contractor plants and in Department of Defense civilian installations. This defense-related employment exceeded 5 percent of the labor force in Alaska, Utah, Hawaii, the District of Columbia, Virginia, Maryland, and Connecticut. The employment generated by the tax reductions, the larger social welfare benefits, or the greater volume of public construction would be generally diffused throughout the economy. Willingness to relocate on the part of employees, and willingness to underwrite part of the moving and other costs of relocation by Government and industry could substantially assist in minimizing frictional unemployment in the aftermath of the cessation of hostilities.

The offset programs which led to increases in public and private construction would create a number of openings for workers in the building trades crafts. The requirements anticipated because of growth in the volume of construction would bring about an increase in demand

amounting to 4 percent or more of the total 1966 employment in the following occupations: brickmasons, carpenters, excavating, grading, and road machinery operators; painters, plumbers, and pipefitters. Easing requirements for entry into the relevant unions in many of these occupations would enable more of the workers released from defense employment who possessed these skills, or could readily acquire them, to obtain employment. Growth in manpower needs in the skilled crafts might also offer an opportunity to examine existing apprenticeship, high school vocational education, and other training programs in the light of the changes in technology affecting individual occupations with a view to taking advantage of these changes, and of the development of new teaching techniques, to shorten the average period of training in a number of these fields.

Education and training offer an opportunity for many veterans and others to avoid unemployment while increasing their future productivity and earning capacity. If the post-Korean war experience is repeated, an annual average of 20 percent of the veterans released from active military service would be engaged in full-time education and training in the 12-month period after the end of the war in Vietnam. If this proportion were to be doubled to 40 percent because of such measures as expansion of GI educational benefits or greater support for the new manpower programs introduced in the 1960's, the unemployment associated with the transition could be reduced by an anticipated 100,000, or from 375,000 to 275,000. For engineers and technicians released from defense employment, or for veterans who had acquired valuable work skills during their military service; e.g., as airplane mechanics or electronic technicians, part-time refresher courses, probably sponsored by universities or community colleges, could facilitate the entry of these highly skilled persons into civilian economy counterpart occupations which would be expanding in a growing economy.

Education and training by themselves, however, can offer only a partial solution to unemployment. If the overall rate of economic growth were to slow down at the time the military effort associated with Vietnam were sharply reduced, say to an annual rate of less than 4 percent, the programs in education and training would lead to employment for a few selected individuals in a minority of growth occupations, and to newly acquired unutilized skills for the others. Slow growth would reduce the chances of obtaining employment in the industries affected by the greater spending for the nondefense priorities by swelling the ranks of jobseekers with persons seeking employment because of a lack of opportunities elsewhere in the economy. The major condition for minimizing the human dislocations accompanying the changeover from a more to a less defense-oriented society, therefore, is a dynamic economy. More active pursuit of goals which serve social purposes can also serve to reduce unemployment because, with a less than fully employed labor force, the expenditures for their pursuit contribute to economic growth.



APPENDIX TABLE 1

## CLASSIFICATION OF GOALS AND THE ABSTRACT OF STANDARDS, NPA GOALS STUDY

1. Agriculture --- Includes cost of programs to raise income of commercial farm families to a close approximation to income of non-farm families plus the cost of programs to encourage movement of 150,000 low-income members of the farm labor force into non-farm employment each year.
2. Area redevelopment. Cost of expanded redevelopment programs following the objectives of the Area Redevelopment Act.
3. Consumer expenditures. Living standards rise to limit set by savings rate of approximately 8 percent of disposable personal income. Includes additional increases in consumer expenditures from other goals such as health, education, and transportation, plus family allowance system to increase incomes of families below \$3,300 to this level.
4. Education ----- Assumes an increase in proportion of students from eligible age group receiving high school and higher education amounting to a 50 percent increase in proportion for college group. Allows for doubling of faculty salaries over decade, increased teacher supporting staff, expansion of adult education and vocational training role of junior colleges, and increased plant and equipment at all levels of education.
5. Health ----- Stresses programs to enlarge access to modern health technologies by providing families with a level of health care equal to that enjoyed currently by families with most comprehensive health insurance plus expanded provisions for dental and psychiatric care. For persons over 65 includes level of medical care costing 50 percent more than HEW estimate of cost of adequate medical care for the aged in early 1960's with two-thirds of costs financed by public funds. Also includes increase in ratio of hospital beds to population following Hill-Burton Act standards, together with increase in health research expenditures sufficient to employ the 77,000 health research professionals NIH estimates will be needed in early 1970's.
6. Housing ----- Includes elimination of all remaining substandard housing between 1966 and 1975, plus increase in number of housing starts to 2.5 million a year by 1975 to provide for new family formation, adequate housing for nonwhites, higher income levels, greater emphasis on special housing for the aged, and for vacation "second" housing. Also includes cost of R&D program to develop synthetic building materials, mass production of housing components, and building codes geared to potentialities of modern technology.
7. International aid. Goal includes cost to United States of UN Decade of Development target that each industrialized nation contribute 1 per cent of GNP from public and private sources to supply capital to developing nations. Also includes military support to developing nations at early 1960 levels, plus support for international non-financial organizations rising to \$1.5 billion in 1975, primarily for WHO, UNESCO, FAO, and for an expanded UN Peace Force.
8. Manpower re-training. Cost of programs for retraining 1 per cent of the labor force a year following the outlines of the Manpower Development and Training Act passed in 1962, and providing basic literacy training as provided by 1963 amendments to MDTA.
9. National defense. Expenditures for an adequate national defense taking into account applications of technological advances such as anti-missile missiles, nuclear aircraft carriers, space vehicles, and requirements to maintain conventional forces.

10. Natural resources. Cost of programs for increasing and economizing the supply of natural resources required in an urbanized and affluent society. Largest expansion in expenditures projected for water purification and storage with programs derived from studies of Senate Select Committee on Water Resources.
11. Private plant and equipment. Expenditures for plant and equipment needed to sustain economic growth in the 1970's plus the additional private plant and equipment expenditures projected for specific goals; utilities in urban development, transportation equipment in transportation, private and non-profit facilities for schools, hospitals, welfare, etc.
12. Research and development. Standard stresses increases in "civilian economy" R & D with total R & D expenditures projected to increase from 3 per cent of GNP in early 1960's to 4 per cent of trillion-dollar GNP in mid-1970's. Includes substantial increases in expenditures for basic research, for water desalination and oceanography, for health and social science research, for R & D information systems, and for an R & D extension service for the private economy with objectives similar to State Technical Services Act of 1965.
13. Social welfare. Includes expenditures from public and private sources for providing typical pension to retired couple covering cost of "modest but adequate" standard of living for an elderly couple in American cities in early 1960's plus allowance for increases in earning levels and standards of living. Also includes family allowance system to establish income maintenance floor for families with poverty incomes in the 1970's and provisions for incorporating nationwide protection against income loss from illness as part of OASDI, expansion of unemployment compensation and benefits similar to proposals of recent Administrations.
14. Space----- Includes expenditures for sustained space research and development program involving manned lunar landing about 1970 followed by exploration of moon, earth orbiting laboratories, and development of technology leading to human landing on Mars before year 2,000. Also stresses expansion of research in basic space sciences and in applications of space technology in such areas as weather observation satellites and in long distance telecommunications.
15. Transportation. Expenditures for transportation equipment and R & D allowing for projected increase in automobile stock and for changes in transportation resource use following line of President Kennedy's 1962 Transportation Message to Congress. Also includes cost of R & D and initial commercial application of technological advances such as supersonic planes, nuclear ships, hydrofoils, gas turbine engines, etc.
16. Urban development. Includes expenditures, generally derived from other goals, which are attributable to programs for providing adequate transportation, housing, cultural and recreation facilities, schools, hospitals, and industrial, commercial, and governmental buildings for the over three-fourths of the population who are expected to be living in urban areas in 1975. Also includes expenditures for new mass transit technologies and for equipping automobiles with devices for controlling air pollution. Involves overall increase in spending for urban facilities rising from 11% of GNP in 1962 to 13% in 1975.

APPENDIX TABLE 2

*Estimated manpower requirements for individual goals in 1962, and for aspiration goals in 1975*

Goal	Manpower requirements (in thousands)		Percent increase in requirements, 1962 to 1975 (percent)
	1962	1975	
Consumer expenditures.....	42,489	58,649	38
Health and education.....	9,069	17,140	89
Direct employment, health.....	2,984	6,120	105
Direct employment, education.....	3,595	7,006	95
Housing.....	3,425	5,422	58
International aid.....	509	812	60
National defense <sup>1</sup> .....	3,457	3,264	-6
Natural resources.....	652	1,201	84
Private plant and equipment.....	5,586	11,250	101
Research and development <sup>2</sup> .....	2,259	4,295	90
Social welfare.....	4,593	8,395	83
Transportation.....	3,961	5,972	51
Urban development.....	6,336	10,160	60
Minus double counting and transfer adjustments <sup>3</sup> .....	14,490	25,354	-----
Net total, all goals.....	67,846	101,206	44

<sup>1</sup> Refers to employment generated in industry because of purchases of goods and services for national defense. This includes government employment in industrial sectors for which there are counterparts in the private economy, e.g., in shipyards.

<sup>2</sup> Includes space research and development.

<sup>3</sup> Includes persons who are counted as part of the manpower requirements for more than 1 goal, and persons whose employment is unrelated to pursuit of the goals listed.

APPENDIX TABLE 3

*Estimated employment impact of reduced defense purchases from industry for Vietnam and offset programs, by industry <sup>1</sup>*

[In thousands of employees]

	Persons released from employment by a \$20,000,000,000 cutback in defense purchases <sup>2</sup>	New employment created by \$10,000,000,000 in tax cuts and \$10,000,000,000 greater public spending for urban development and social welfare	Net change in employment
Agriculture <sup>3</sup> .....	33	89	56
Mining.....	14	16	2
Construction.....	59	382	323
Manufacturing.....	878	372	-506
Durables.....	773	215	-558
Nondurables.....	105	158	53
Transportation.....	67	57	-10
Public utilities.....	6	15	9
Communications.....	7	16	9
Trade.....	205	307	102
Finance, insurance, and real estate.....	20	77	57
Services.....	70	352	282
Private households.....	-----	47	47
Other services.....	70	305	235
Total.....	1,359	1,685	326

<sup>1</sup> To be consistent with occupational data, these estimates are based on household rather than establishment data.

<sup>2</sup> Refers to purchases of goods and services from industry.

<sup>3</sup> Includes forestry and fishery industries.

NOTE.—Detail may not add to totals due to rounding.

APPENDIX TABLE 4

*Estimated employment impact of reduced defense purchases from industry for Vietnam and offset programs*

	Persons released from employment by a \$20,000,000,000 cutback in defense purchases †	New employment created by \$10,000,000,000 in tax cuts and \$10,000,000,000 greater public spending for urban development and social welfare, total	Net change in employment
<b>I. Professional, technical and kindred workers</b> .....	<b>232</b>	<b>177</b>	<b>-55</b>
Accountants and auditors.....	14	11	-3
Airplane pilots and navigators.....	2	(?)	-1
Architects.....	(?)	3	3
College presidents, professors, and instructors.....	1	2	1
Dentists.....	(?)	2	2
Designers and draftsmen.....	17	10	-7
Engineers.....	112	34	-78
Lawyers and judges.....	2	4	2
Librarians.....	(?)	1	(?)
Natural scientists.....	14	4	-10
Nurses, professional.....	2	12	10
Personnel and labor relations workers.....	5	4	-1
Pharmacists.....	-----	2	2
Physicians and surgeons.....	1	5	4
Social, welfare, and recreation workers.....	(?)	7	7
Teachers, elementary.....	1	1	-----
Teachers, secondary.....	(?)	2	2
Technicians, electrical and elec- tronic.....	21	4	-17
Technicians, medical and dental...	1	3	2
Technicians, other.....	20	10	-10
Other professional and technical workers.....	19	56	37
<b>II. Managers, officials, and proprietors, except farm</b> .....	<b>97</b>	<b>184</b>	<b>87</b>
Salaried managers.....	83	108	25
Self-employed.....	14	76	62
<b>III. Clerical and kindred workers</b> .....	<b>200</b>	<b>234</b>	<b>34</b>
Bookkeepers.....	14	26	12
Cashiers.....	1	12	11
Office machine operators.....	11	10	-1
Secretaries, stenographers, and typists.....	54	61	7
Shipping and receiving clerks.....	18	8	-10
Stock clerks and storekeepers.....	14	9	-5
Telephone operators.....	2	7	5
Other clerical workers.....	86	101	15
<b>IV. Sales workers</b> .....	<b>58</b>	<b>104</b>	<b>46</b>
Insurance and real estate agents and brokers.....	4	14	10
Salesmen and sales clerks, retail trade.....	1	61	60
Salesmen and sales clerks, other...	53	29	-24
<b>V. Craftsmen, foremen, and kindred workers</b> .....	<b>252</b>	<b>324</b>	<b>72</b>
Brickmasons, stonemasons and tile- setters.....	3	14	11
Cabinetmakers and pattern makers.....	4	2	-2
Carpenters.....	7	47	40
Cranemen, derrickmen, and hoist- men.....	8	6	-2
Electricians.....	11	16	5
Excavating, grading, and road ma- chinery operators.....	2	14	12
Foremen.....	49	35	-14
Linemen and servicemen, tele- graph, telephone, and power...	4	10	6
Locomotive engineers.....	1	1	-----
Machinists and job setters.....	42	10	-32

See footnotes at end of table, p. 69.

APPENDIX TABLE 4

*Estimated employment impact of reduced defense purchases from industry for Vietnam and offset programs—Continued*

	Persons released from employment by a \$20,000,000,000 cutback in defense purchases <sup>1</sup>	New employment created by \$10,000,000,000 in tax cuts and \$10,000,000,000 greater public spending for urban development and social welfare, total	Net change in employment
<b>V. Craftsmen, etc.—Continued</b>			
Mechanics and repairmen, automobile.....	8	18	10
Mechanics and repairmen, other.....	41	39	-2
Painters, construction and maintenance.....	5	27	22
Plumbers and pipefitters.....	6	20	14
Printing craftsmen.....	5	6	1
Stationery engineers.....	9	5	-4
Tinsmiths, coppersmiths, and sheet metal workers.....	10	4	-6
Toolmakers, diemakers and setters.....	18	4	-14
Other.....	19	46	27
	<hr/> <hr/>	<hr/> <hr/>	<hr/> <hr/>
<b>VI. Operatives and kindred workers.....</b>	<b>387</b>	<b>291</b>	<b>-96</b>
Assemblers.....	51	12	-39
Attendants, auto service and parking.....	1	9	8
Brakemen and switchmen, railroad.....	3	2	-1
Bus drivers.....	1	3	2
Deliverymen and routemen.....	8	14	6
Checkers and inspectors, manufacturing.....	36	10	-26
Filers, grinders and polishers, metal.....	17	3	-14
Laundry and drycleaning operatives.....	3	9	6
Mine operatives and laborers.....	5	7	2
Painters, except construction and maintenance.....	7	3	-4
Sewers and stitchers, manufacturing.....	12	15	3
Taxicab drivers and chauffeurs.....	1	2	1
Truck and tractor drivers.....	44	50	6
Welders and flame cutters.....	17	11	-6
Other operatives and kindred workers.....	181	141	-40
	<hr/> <hr/>	<hr/> <hr/>	<hr/> <hr/>
<b>VII. Private household workers.....</b>		<b>45</b>	<b>45</b>
<b>VIII. Service workers, except private household.....</b>	<b>50</b>	<b>134</b>	<b>84</b>
Attendants, hospital and other institutions.....	1	10	9
Barbers, hairdressers, and cosmetologists.....	1	13	12
Charwomen, janitors and porters.....	19	24	5
Cooks.....	2	12	10
Firemen, fire protection.....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Guards, watchmen, and doorkeepers.....	18	5	-13
Policemen, sheriffs, and marshals.....	1	( <sup>2</sup> )	( <sup>2</sup> )
Practical nurses.....	1	6	5
Waiters, bartenders, and counter workers.....	4	27	23
Other service workers, except private household.....	3	35	32
	<hr/> <hr/>	<hr/> <hr/>	<hr/> <hr/>
<b>IX. Farmworkers.....</b>	<b>30</b>	<b>82</b>	<b>52</b>
Farmers and farm managers.....	15	40	25
Farm laborers and foremen.....	15	42	27
	<hr/> <hr/>	<hr/> <hr/>	<hr/> <hr/>
<b>X. Laborers, except farm and mine.....</b>	<b>52</b>	<b>112</b>	<b>60</b>
	<hr/> <hr/>	<hr/> <hr/>	<hr/> <hr/>
<b>XI. Total.....</b>	<b>1,359</b>	<b>1,685</b>	<b>326</b>

<sup>1</sup> Refers to purchases of goods and services from industry.

<sup>2</sup> Less than 500 employees.

<sup>3</sup> Unknown.

NOTE.—Detail may not add to totals due to rounding.

APPENDIX TABLE 5

*Estimated employment impact of reduced defense purchases from industry for Vietnam and offset programs, by race*<sup>1</sup>

[In thousands of employees]

	Persons released from employment by a \$20,000,000,000 cutback in defense purchases <sup>2</sup>			New employment created by \$10,000,000,000 in tax cuts and \$10,000,000,000 greater public spending for urban development and social welfare			Net change in employment		
	Total	White	Nonwhite	Total	White	Nonwhite	Total	White	Nonwhite
Professional and technical workers.....	232	224	8	177	168	9	-55	-56	1
Managers, officials, and proprietors <sup>3</sup> .....	97	95	3	184	179	6	87	84	3
Clerical workers.....	200	185	14	234	219	14	34	34	-----
Sales workers.....	58	56	2	104	100	4	46	42	2
Craftsmen and foremen.....	252	239	13	324	300	24	72	61	11
Operatives.....	387	345	42	291	255	36	-96	-90	-6
Laborers <sup>4</sup> .....	52	39	13	112	83	29	60	44	16
Private household workers.....	-----	-----	-----	45	26	19	45	26	19
Other service workers.....	50	40	11	134	105	29	84	65	18
Farmworkers.....	30	25	5	82	69	12	52	44	7
<b>Total.....</b>	<b>1,359</b>	<b>1,249</b>	<b>110</b>	<b>1,685</b>	<b>1,503</b>	<b>182</b>	<b>326</b>	<b>254</b>	<b>72</b>

<sup>1</sup> The distribution by race of the major occupational groups is based on the expected distribution by race during the 1969 period of the 80-odd occupations shown in appendix table 4.

<sup>2</sup> Refers to purchases of goods and services from industry.

<sup>3</sup> Excluding farm.

<sup>4</sup> Excluding farm and mine.

NOTE.—Detail may not add to totals due to rounding.

APPENDIX TABLE 6

*Estimated employment impact of reduced defense purchases from industry for Vietnam and offset programs, by sex*<sup>1</sup>

[In thousands of employees]

	Persons released from employment by a \$20,000,000,000 cutback in defense purchases <sup>2</sup>			New employment created by \$10,000,000,000 in tax cuts and \$10,000,000,000 greater public spending for urban development and social welfare			Net change in employment		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Professional and technical workers.....	232	212	20	177	133	44	-55	-70	24
Managers, officials, and proprietors <sup>3</sup> .....	97	82	15	184	156	28	87	74	13
Clerical workers.....	200	70	130	234	66	168	34	-4	38
Sales workers.....	58	50	8	104	63	41	46	13	33
Craftsmen and foremen.....	252	246	6	324	316	8	72	70	2
Operatives.....	387	272	115	291	212	79	-96	-60	-36
Laborers <sup>4</sup> .....	52	50	2	112	109	3	60	59	1
Private household workers.....	-----	-----	-----	45	1	44	45	1	44
Other service workers.....	50	38	13	134	55	78	84	17	65
Farmworkers.....	30	24	5	82	66	16	52	42	11
<b>Total.....</b>	<b>1,359</b>	<b>1,045</b>	<b>314</b>	<b>1,685</b>	<b>1,178</b>	<b>507</b>	<b>326</b>	<b>133</b>	<b>193</b>

<sup>1</sup> The distribution by sex of the major occupational groups is based on the expected distribution by sex during the 1969 period of the 80-odd occupations shown in appendix table 4.

<sup>2</sup> Refers to purchases of goods and services from industry.

<sup>3</sup> Excluding farm.

<sup>4</sup> Excluding farm and mine.

NOTE.—Detail may not add to totals due to rounding.

# CRITIQUE OF FEDERAL HUMAN RESOURCES POLICY

BY ELI GINZBERG\*

## 1. INTRODUCTION

This paper draws upon the almost 30 years of research in human resources and manpower that my colleagues and I have pursued in the conservation-of-human-resources project at Columbia University; on my assignments for the Federal Government, uninterrupted since 1941; and on my considered views of the potentialities and limitations of the Federal Government to design and implement new and improved policies in the area of human resources.

The themes that I have selected for detailed consideration represent a compromise between those which I hold to be of critical importance and those about which I have specialized knowledge. The views adumbrated below are in considerable measure extensions and refinements of those presented in my forthcoming book, *Manpower Agenda for America*, which will be published by McGraw-Hill in January 1968.

There are two ways to read American history with respect to the shaping of national human resources policy. One would contend that it was primarily after the New Deal that the Federal Government became involved in legislating in this area, witness its actions in such critically important fields as social security, education, manpower, health, poverty. The other would maintain that from the beginnings of the Republic, Congress has been engaged in shaping and reshaping a human resources policy, witness its action with respect to slavery, the settlement of the West, support for land-grant colleges, immigration, and other issues of importance for the welfare and security of the people.

No society, democratic or other, can act to secure its future without concern for its human resources; yet full awareness of the scope of constructive actions with respect to human resources must wait upon both the growth of the economy to a point where talent and skill are of overriding importance and upon the growth of knowledge to a point where the processes of individual and social development are comprehended.

Much of what has transpired in the past in the shaping of American Federal policy in the area of human resources was in response to emerging problems and events. The present challenge is to uncover the linkages that exist among the many different facets and to design new policies in light of these linkages so that the several efforts of the Federal Government can reinforce each other.

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## 2. IMPORTANT GOALS

Among the explicit or implicit goals that have guided the Congress during the past years in formulating human resources policy have been the following:

1. To expand the scope and improve the quality of education for the Nation's children.
2. To provide training opportunities for the unemployed and underemployed.
3. To underwrite research so that the Nation can accumulate new knowledge and put it to useful ends.
4. To expand and improve health services.
5. To establish the rights of disadvantaged people to income when they are unable to earn incomes.
6. To fashion a range of programs aimed at helping people extricate themselves from poverty, and helping others to avoid falling into poverty.
7. To design programs to better prepare youth for adulthood.
8. To subsidize housing for low-income groups and to facilitate the renewal of deteriorated urban areas.
9. To provide for an equitable system of drafting young men for the armed services.
10. To accelerate the integration of the Negro into American society.

A point made previously should be stressed. These 10 areas within which Congress has acted during the past decade is not the total range of its concerns or actions in the field of human resources. The 10 were selected because they represent important areas of continuing congressional concern and as such warrant careful appraisal.

## 3. MEANS AND ENDS

We will consider briefly each of these areas of congressional action in order to assess the relation between means and ends.

1. *Education.*—Although the Federal Government invests several billion dollars annually in elementary and secondary education, its impact upon the total schooling effort is small indeed. Given the scale of the total national effort, there is no possibility that the Federal Government will exercise a *significant* impact on the system as a whole at the present level and pattern of expenditures. Among its choices is to continue substantially the present pattern with the knowledge that its dollars represent a minor supplement to the total effort; to aim its expenditures specifically at one or a limited number of objectives, such as an effort to transform the ghetto school; or, if and when its budgetary position permits, to make a much more substantial investment in elementary and secondary education.

2. *Training.*—The several training programs financed and operated by the Federal Government (from MDTA to the Job Corps) represent the single largest effort in the country to help the unemployed and the underemployed acquire the skills which will enable them to get jobs. State and local governmental efforts as well as the efforts of the private sector are small compared to the Federal effort. Yet the present Federal effort is too small to meet the needs of all who could



profit from training. The fact that the Federal effort is a composite of many different pieces of legislation implies that effective planning is inhibited and operational efficiencies are difficult to achieve. Moreover, today many communities do not have an effective skill development structure to meet the needs of out-of-school youth and adults. While the Congress is to be commended in having taken the lead in this critically important area, much more has to be done to establish an appropriate and effective training system throughout the United States which will meet the needs of those who are employed, underemployed, and unemployed. Clearly such a system will require more than Federal leadership and financing. There must also be active participation of both State and local government and employer and labor groups.

3. *Research*.—Through the National Institutes of Health, the National Science Foundation, and through the research budgets of the executive departments and independent agencies, the Federal Government has assumed the leadership in underwriting the Nation's research efforts during the past two decades, particularly in the fields of the natural sciences and health. On balance, in light of the many complex interests that had to be reconsidered—government, scientists, universities—the effort must be judged a success. Yet important problems remain: How can Congress secure important scientific advice to aid it in its deliberations? How can a balance be secured between the presumed gains from underwriting the most competent research workers via project grants and the gains from broadening and deepening the Nation's research potential by directing new funds into institutional support? How can Congress avoid the distortion that has occurred in the past in medical schools and teaching hospitals from grants made primarily for research and not for education or science? At what rate should additional research funds be appropriated and what principles should govern allocations among the several fields and within fields? The Federal Government is certain to retain a leadership role in financing the more costly areas of research. But many important and subtle issues involving the future integrity and productivity of major institutions and professions are tied into the mechanics of congressional decisionmaking and controls.

4. *Health*.—The Federal Government has taken three major steps in this area. It began by subsidizing research; it next provided funds for training various groups of health personnel; and recently it undertook to finance the provision of health services to old or needy persons. It is too early to assess the impact and import of medicare and medicaid, but a reasonable presumption is that with so many new dollars flowing into the industry, costs will advance rapidly and new and more efficient utilization patterns will be hard to establish. Each of the principal claimants—patients, physicians, hospitals—has been encouraged to assume from the way the legislation was written that the Federal Government has committed itself to assuring that the major requirements of everybody will be met. Congress will probably soon confront two difficult questions: How much of the taxpayer's dollar should be put into this program, and how to alter the present pattern of paying physicians on a fee-for-service basis. Before this it will probably be pressured into putting substantial sums into expanding medical

schools. Over time, large amounts of Federal money are likely to flow into the health services industry. The returns to the American people in terms of better health remain to be demonstrated.

5. *Welfare*.—Our social security system, built over the past three decades, is an impressive achievement, but many old people still do not receive enough to enable them to keep off the relief rolls. Public assistance in most States is inadequate. It does not meet the minimum needs of those who have been certified to receive assistance. In addition, our aid to dependent children program is inadequate. In many States it still contributes to family disorganization by forcing the man to leave his wife and children to make them eligible for support. Moreover, our welfare program often operates to reduce the incentive of people to seek or hold employment. Finally, the rehabilitation potential of welfare is largely ignored in favor of low-level maintenance. In light of the large Federal sums involved in the Nation's welfare system, Congress has a major responsibility to review the system and then make it more responsive to the needs of those it aims to assist and at the same time to help rehabilitate people and return them to employment.

6. *Poverty*.—Although the President has declared that we are engaged in a war against poverty, the truth is that in the 3 years since the Office of Economic Opportunity has been established, Congress has appropriated sums that have enabled only a small proportion of the 30 million or so poverty-stricken persons to receive any benefit from these new programs. Even much larger sums by themselves could not win the war. The causes of poverty and the reasons that people cannot extricate themselves from poverty are too diverse and complex to be eradicated solely through additional Federal expenditures. Yet certain populations—such as old people who do not receive adequate social security benefits—could be rescued from poverty by more liberal Federal contributions. The President is committed to review the complex of approaches involved in the negative income tax or a guaranteed annual wage. The Congress might well begin its own assessment of these complex issues by determining, first, those groups in the society who are most in need of help; secondly, the best ways of providing them with financial security; and, finally, which special programs might help people from slipping into poverty. It is questionable whether in light of the existing wage patterns and income distributions it will be possible to design a general system that will assure everybody a minimum level of income based on family size that will not disrupt the pressures and motivation which now operate in people to seek and hold jobs. Even if a feasible system could be designed, Congress will want to consider its utility since a minimum income level loses its validity once it is established.

7. *Youth*.—Most of the congressional effort on behalf of youth has been legislation subsumed under headings such as education, training, poverty, delinquency, and the like. Even if these discrete efforts are considered from the perspective of youth the Federal Government has done relatively little to help young people prepare themselves more effectively to assume the responsibilities of adulthood. If preparing young people to assume their adult roles is the primary responsibility of their parents and if most parents are able and willing to discharge these responsibilities effectively, there is little need for the

Federal Government to act. But many parents are unable to meet their responsibilities. And local and State governments have not intervened effectively. To illustrate: Many young people are born and brought up on a farm or in nonfarm rural areas who have to move to the city to find work and make a life for themselves. Many need help in preparing for such a shift. Many others, born and brought up in deprived conditions in urban centers, fall out of school before acquiring a high school diploma, frequently before mastering the three R's. While the new Federal training programs may help these young people, they really need work-study opportunities when they reach the age of 16 so that they can earn and learn at the same time. Then there are large numbers who get into trouble with the law, frequently for minor infractions. But, if they are sent away to reform schools the conditions of confinement are so poor that they are likely to get into more trouble. When they are released, their records make it difficult to get jobs. While the Federal Government has made some efforts in the area of juvenile delinquency, much remains to be done.

8. *Housing and urban development.*—The Federal Government has been involved in public housing since the 1930's when it moved into the field as an employment expansion effort. Since then it has invested billions of dollars to provide housing for the poor and middle class and to improve urban areas that have deteriorated. The success of its efforts has been mixed. Its efforts in expanding the supply of housing for the poor have been modest. It has done better in assisting the middle class to build and own homes. However this has reinforced the already strongly discriminatory practices characteristic of all real estate markets. With regard to urban renewal, many cities have had an opportunity to rebuild, but the human costs in terms of dislocating the poor, especially minority groups, have been very high. Only recently has the Federal Government begun to see the problems and prospects of our urban communities in broader perspective. And here the gap between the sums appropriated and those required are immense.

9. *Military manpower policies.*—For more than a quarter of a century we have used compulsion to procure the necessary manpower for our armed services. Since the end of World War II, and particularly since the end of the Korean war, the criteria used to select one man and to defer another has had a pronounced discriminatory aspect. Those who come from less affluent families, who are less likely to attend college or graduate school, are much more likely to serve. There is another aspect of military manpower policies that warrants attention here. Many poorly educated men are rejected for service who could benefit from a term in the Army. Congress has never adequately considered the potentialities of the military's providing many millions of young men a second chance.

10. *Civil rights.*—The last decade has seen the most active period of Federal legislation on behalf of Negroes since the immediate post-Civil War years. Yet despite the important advances that were made to assure the Negro his right to vote, equality in the courts, access to all services which are financed by Government and equal employment opportunities, Congress has been unwilling to provide the appropriations and the manpower to enable the executive agencies to implement these statutes effectively. The Congress has thus unquestionably contributed to the present racial tension, since it has raised

Negro hopes and aspirations high but it has failed to take many of the actions required to permit them to be fully realized.

#### 4. DIVERSITY OF APPROACHES

In attempting to strengthen the Nation's human resources, the Federal Government is employing a variety of different measures, from designing a new program and carrying almost all of the costs as in its manpower training program to passing legislation directed toward affording minority groups equality of opportunity in employment where no significant new funding is involved. But except for legislation with respect to civil rights and the procurement of military manpower, a decision of the Federal Government usually has a price tag in the billion-dollar range even in the initial stages of the program.

In two of the fields we have discussed—welfare and health—a significant part of the financing is not a charge against general revenues but involves reliance on social insurance where potential beneficiaries contribute to the system. This is an important distinction.

Another distinction among these several programs is the nature of the Federal involvement. In social security the contribution of the Federal Government is limited primarily to mailing checks to beneficiaries. The transfer of money is the aim and objective of the Federal program. But in education or health, the Federal Government wants the services provided to be significantly improved. It does not follow that the expenditure of Federal funds will necessarily bring this about. Some months ago, the advisory committee charged with appraising the impact of Federal funds on the quality of schooling available to pupils in the ghetto concluded that the purpose of the program had not been realized.

Another distinction is that in most programs involving large-scale expenditures, the Federal Government is dependent on the cooperation of State and local governments for effectiveness with which the program is carried out. It is these units of government that are usually directly involved in the provision of services. For instance, in regard to manpower training, the Federal Government operates alone only the Job Corps. The influence of the Federal Government varies from one program to the next, depending on the willingness of Congress to permit the Federal agencies to assume leadership by setting standards and evaluating results or, as is frequently the case, whether it prefers to leave most of the initiative to State and local governments.

Other distinctions can be adumbrated, such as the agencies or groups other than State and local governments that are strategically involved in carrying out a particular Federal program and the ease or difficulty in gaining their cooperation. There are differences in programing based on our understanding of the forces that are responsible for causing the problem or for alleviating it. While the point is usually muted we must recognize that no responsible educator claims that he knows how to assure that seriously deprived children can be effectively educated so that they do not lag behind children from middle-class homes in comprehension and the acquisition of skills.

## 5. CRITERIA FOR POLICY DETERMINATION

The effective development and utilization of the Nation's human resources involve the entire population and all basic institutions of society—the family, the school, business, trade unions, philanthropy, and all levels of government. Given this inherent complexity, the Federal Government must select from a large number of possible approaches a few through which it may be able to exert differential leverage. We have pointed out that in the rapid elaboration of human resources policy, the Federal Government has responded to pressing problems and has not considered carefully the potentialities and limitations inherent in alternative policies and programs.

In our pluralistic society with our federal system of government it is essential that consideration be given first to the appropriate division of responsibility between the nongovernmental and the governmental sectors and secondly to the appropriate role for the Federal Government.

The key to an effective human resources policy is, first, in assuring the access of all young people to education and training so that they can develop their potentialities, and, secondly, in assuring that jobs will be available for all who are willing and able to work. In the development of this country, the Federal Government had relatively minor responsibilities in the area of education and training. However, the last several decades have revealed defects in the capacity and the willingness of the States and localities to assure that all citizens have access to educational and training institutions. To the extent that poorly prepared persons jeopardize the ability of the country to defend itself and to advance the general welfare, there is a clear responsibility for the Federal Government to seek to establish adequate opportunities for all. We need, but we do not yet have, a Federal commitment for basic foundation support for education and training.

With respect to employment, the Federal Government has been obligated to establish and maintain a high level of output and employment since 1946 but it has not implemented fully its commitment to provide useful jobs for all who are able and willing to work but who cannot find employment elsewhere. Here is another high priority area for Federal programing.

Men are able to take advantage of opportunities for education and employment only if they are not discriminated against by their fellow men and if they are not handicapped on other grounds. It is the clear responsibility of the Federal Government to enforce more fully the laws of the land that assure to all citizens equal access to all public services. A more difficult task for the Federal Government is to determine its responsibility for helping to eliminate barriers to skill development and utilization that flow from inadequate family income, poor health, adverse location, and similar handicaps. Here, too, the Federal Government has the responsibility of setting minimum standards so that no citizen reaches adulthood without being able to function effectively.

Our society is structured on the principle that most of its members will be able to take care of themselves and their dependents if afforded the opportunity to be educated and trained and to be employed. But some will inevitably fail and it is the responsibility of an affluent nation with humanitarian commitments to see that those who fail will be rehabilitated if possible; and that otherwise they can live without being degraded. Here, too, the Federal Government has the responsibility to set and enforce national standards.

The thrust of these considerations is that the Federal Government is the only agency of our society which is able to assure to all people a minimum opportunity to develop and utilize their potentialities and skills. The stress on *minimum* is deliberate. In a pluralistic society the power and influence of the Federal Government is limited and its goals and objectives should be likewise. As the society becomes affluent, as the disposable income of most families increases, so does the prospect for most citizens to work out their problems without relying on direct Government intervention.

Affluence does not preclude that Government may be required to enter new domains since it may be the only instrumentality of society capable of responding in certain situations or it may be ideally suited to exploit a new potentiality. Many of the crucial problems of urban America involve considerations of eminent domain and Government alone can respond to them. In many areas of research the required investments are so large and profits so uncertain that unless Government responds the opportunity will not be exploited. One of the continuing challenges to the Federal Government is to remain alert to areas where it is particularly or uniquely suited to respond.

However, a decision to respond does not mean that it must do the whole job itself. The Federal Government, like every other instrumentality of our society, has limited, not unlimited, capabilities. Its effectiveness with respect to its targets and goals depends on its selectivity.

## 6. ASSESSMENT

It is relatively easy for the Federal Government to start a new program or expand an existing one. It is difficult for the Congress to learn how effective a program is. There is no easy way to determine effectiveness, but the Congress must devise means of assessing the progress being made in the areas where it has acted. A wide range of possibilities is suggested from periodic congressional reviews which are carefully prepared by competent staff to expanding and deepening of the evaluative capabilities of universities in the human resources area.

In no country in the world do conditions and problems provide a parallel with those of the United States, but it is still possible for us to achieve better understanding of many facets of human resources policy by devoting more effort to comparative studies of the experiences and results of other countries.

Finally, the effectiveness of our national policy will depend on the progress that is made in research in human resources. While the funds

required in this area are much smaller than those involved in research in the sciences, they have not been forthcoming in adequate amounts from private or governmental sources. It would be a sound investment for the Federal Government to stimulate more rapid progress in research and in the training of research personnel.

## 7. CONCLUDING OBSERVATIONS

The concern of the Federal Government in the field of human resources during the past decades reflects the recognition that the society and welfare of this Nation, as of every other, depends in the first instance on the quality of its people. In the burst of enthusiasm following this recognition the Federal Government has followed many different directions in an attempt to improve the opportunities of people to develop and utilize their potentials and skills.

In this new territory and with only a limited knowledge to guide its actions, the policies and programs of the Congress have not been dovetailed. They represent forays in many different directions. Moreover, wide gaps have developed between commitments and resources with inevitable disappointment and frustrations to both the citizen and the Legislature. A democracy must respond to problems as they arise. But the linkages between various aspects of human resources policy—for instance among education, urban renewal, and the eradication of poverty—make it essential that Congress consider more deliberately its leverage for effective action. The primary needs are a limited number of major targets; the design of programs informed by research; critical evaluations of those which been financed. A new field of great importance to the well-being of the citizen and the Nation has been opened up but we are only learning how to exploit it.

## EXPENDITURES ON HUMAN RESOURCES: INVESTMENT, INCOME REDISTRIBUTION, OR WHAT?

BY BURTON A. WEISBROD\*

The Joint Economic Committee's Subcommittee on Economic Progress has set out to clarify fundamental issues and concepts with regard to defining and evaluating the role of the Federal Government in the human resource field. The present paper considers one such issue—the relevance of economic efficiency as compared with other considerations in the evaluation of human resource programs. The paper is addressed primarily to persons other than professional economists; to the latter group, much of the argument is familiar, while part will be found to be incompletely developed in this brief presentation.

The term "human resources" carries the connotation that people may be viewed as productive assets—assets in which investments may be made and from which tangible, salable returns may be expected. This analogy of Government investments—whether directly in people or in nonhuman forms—with ordinary business investment has much to commend it, since resource scarcity compels us to make choices with regard to public as well as private expenditures. But—and here is the simple theme of this paper—the analogy would be carried too far if one were to conclude that income-distributional considerations and other social goals were irrelevant for *Government* expenditure policy, simply because they may be disregarded by *private* investors. Such goals are germane to all Government expenditures, but they are likely to loom especially large for programs involving human resources.

There is some empirical evidence that expenditures on human resources—particularly through education—are profitable investments. Formal schooling, for example, appears to be profitable in the sense that, on average, the increase in productivity (earnings) apparently attributable to schooling exceeds the estimated costs of that schooling. Within very recent years, however, evidence has been growing that although education may be a socially and privately profitable investment *in general*, it may not be profitable—at least in the business-investment sense—for groups such as those high school students who are seriously contemplating dropping out of school, children from seriously underprivileged backgrounds, and people of low ability.<sup>1</sup> That is, the social costs of educational programs for these groups appear frequently to exceed the benefits in the form of increased earn-

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NOTE.—The author would like to thank Glen Cain, W. Lee Hansen, and Robert J. Lampman for their valuable comments on an earlier draft.

<sup>1</sup> See, for examples, Thomas Ribich, *Education and Poverty* (Washington, D.C.: The Brookings Institution, forthcoming, 1968); Burton A. Weisbrod, "Preventing High School Dropouts," in Robert Dorfman, editor, *Measuring Benefits of Government Investments* (Washington, D.C.: The Brookings Institution, 1965), and W. Lee Hansen, Burton A. Weisbrod, and William Scanlon, "Determinants of Earnings: Does Schooling Really Count?" University of Wisconsin, Economics of Human Resources working paper 5, December 1967.



ings. To be sure, there may be benefits—to students and to others (“external” benefits)—in addition to increased productivity; yet at present we can do little more than speculate about their importance.

Thus we confront an important issue: *if* certain public expenditures are to be justified on the grounds that they represent profitable investments, should such expenditures be made when they are *not* “profitable”? To illustrate, assume that government preventive-health expenditures are profitable investments, in general. Would they also be profitable if made on behalf of the health of *aged* people? Since the aged are normally retired, and hence, contribute little to output of the economy (at least as measured), it is apparent that expenditures on their behalf would not be shown to be profitable investments *in the usual sense*. Does it follow that there should be no public expenditures devoted to the health of retired people?

Another example: In general, a high school education appears to be a profitable public investment. It could be the case, however, that for persons such as Negroes, who are victimized by discrimination, expenditures on high school education are not profitable because the Negro graduates would be unable to obtain jobs normally obtainable by white graduates. Consequently, high school education might actually return little, either in increase productivity for the economy or in increased earnings for the individual. If this were the case, would it be true that we should not devote public resources to high school education for Negroes? Illustrations of this sort could be multiplied many times.

Or to turn the case around, what if it were determined that public expenditures on undergraduate education at some ivy league college would be efficient (i.e., profitable) investments in the sense that students’ future productivity (as measured by earnings) would be increased by considerably more than the added cost; ought we favor public subsidy for these students—students who tend to have above-average ability, come from families with above-average affluence, and who are already receiving college education of above-average quality?

The point is that Government expenditures—and especially human-resource expenditures—may be made because they are expected to increase productivity, or they may be made for quite different reasons. We might spend on health for the aged simply because we regard this as desirable, notwithstanding the lack of effect on measured output. We might devote resources to education even though there were no demonstrable effect on the output or earning capacity of the individuals involved. We might refrain from making an “efficient” investment if the beneficiaries were an already-privileged group. In short, there are many social goals for which we strive other than that of increasing economic output. We must face up to the possibility that investments in human resources may not always be as efficient in raising measured output as are alternative investments. We may make the investments in people anyway.

Economists have had little to say about the desirability of expenditures when considerations other than economic efficiency are involved. Thus, the empirical work on benefit-cost analysis in the human resources area has largely emphasized the effect of such programs on national production—that is, it has emphasized the investment-efficiency

character of expenditures. It has paid virtually no attention to the income-distributional effects of those expenditures, or to their contribution to other social goals. The Federal Government, in particular, however, should consider the effects of its actions not only on the size of economic output, but also on the distribution—and on the manner in which the distribution (or redistribution) is brought about. Moreover, the Federal Government must consider the effects of its programs on other goals, such as “equality of opportunity,” which may have only an indirect or remote connection with measured aggregate economic output.

This state of events provides a basis for concern. The “human resources” approach involves looking at people as productive assets. It follows from this point of view that certain activities should be undertaken insofar as they will contribute to the productivity of resources; at the same time, this point of view seems to suggest—although not to imply logically—that certain activities should be forgone unless they will contribute to productivity by more than the cost of the resources used.

But economic efficiency (as customarily measured) is only one of the goals which Government decisionmakers should seek, and it is very important that attention be given to the trade-offs among goals—to the trade-offs that society is *willing* to make, and to those that it is *able* to make. Only when this is done will we be able to decide intelligently how much resources ought to go into expanding output as compared with redistributing that output or contributing to other social objectives. In any event, we do need to face up to the easy error that accompanies an oversimplified application of the human resources approach—the error of deciding that resources should be devoted *only* to those programs for which productivity benefits exceed cost.

At the same time, we must not disregard economic efficiency. Our judgment about the wisdom of, for example, a manpower retraining program versus a pure transfer payment program to aid the long-term unemployed might well be very different depending on whether it were estimated that the [present value of] increased earnings resulting from the retraining amounted to, say, 90 percent, or only 20 percent of the resource costs. Society might feel that the advantages of enabling people to *earn* a living—this might be one social goal—were such that the training program should be supported if there is a social return of even 90 percent of costs. But if the return were only 20 percent, then it might be felt that a simple cash transfer would be preferable.

The danger in an uncritical application of business-investment criteria to Government expenditures in general, and to human resource expenditures in particular—that is, the danger of emphasizing economic efficiency and essentially disregarding income-distributional and other effects—comes into sharp focus when one is considering programs to raise productivity and earning capacity for the disadvantaged, including the poor, the long-term unemployed, the uneducated, and so on. Viewing these programs as investments in human resources, Government agencies have increasingly labored to estimate benefit-cost ratios or similar measures of economic efficiency. When benefits—at least in the form of increased expected earnings—have appeared to be less than costs, disappointment has followed.

Should one have seriously expected another outcome? Probably not. The fact that the group was "disadvantaged" suggests that raising its earnings would not be easy or cheap; and the fact that the private market had not operated to provide training programs, special trade schools, placement services, and the like, is further evidence—though only of a presumptive sort—that raising earnings will be costly. It is true, of course, that lack of information and other sources of market imperfection could be at "fault," or there might be important benefits from such programs to persons other than the direct beneficiaries. Yet what needs to be known is whether such imperfections or external benefits are *more* significant in the markets for the disadvantaged than they are in other sectors. They may be, but the question needs to be explored further. As a first approximation we should not expect that investments will be "efficient," in the business-investment sense, when aimed at people with whom the private market has chosen not to act, whether those people are disadvantaged or not. (To be sure, as with all presumptions, this one is also subject to refutation.)

I do *not* conclude that Government investments for the disadvantaged are undesirable—only that they are quite likely to be economically "inefficient," in some degree; that is, productivity benefits are likely to fall short of costs. Justification for such programs will depend, therefore, on evidence of unusually great market imperfections or external social benefits, or, very often, on concerns about income-distributional or other social welfare objectives.

In the development of public policy in the human-resources area there are two dangers to be avoided: (1) We should not apply straightforward business-investment (economic efficiency) criteria for assessing program desirability—in particular, we should not disregard income-distributional effects; but (2) neither should we allow our concern about income distribution and other social goals to soften our resolve to improve the quality of benefit-cost analyses.

## THE ASSESSMENT OF HUMAN INVESTMENTS AS GROWTH STRATEGY

BY MARY JEAN BOWMAN\*

As we move into a second decade of the new human-investment era, a first requirement in economic analysis must be far more attention to the differences between physical and human capital. (Their common elements as these affect human-capital formation and utilization will receive appropriate attention, we can be sure.) This is not a matter of disentangling the mixture of consumption and investment elements in education. Far more important, for example, is the fact that human-resource formation during school years is itself a function of multiple inputs, and that only some of these are specified (let alone measured) at any given time or over any given time interval. Many, indeed, are not even linked to the school. Studies of determinants of achievement amply demonstrate the importance of this fact. Furthermore, it is time that economists gave more attention to the fact that relevant diversities in the human raw material include motivations; economists may take account of this diversity in their most generalized theorizing, but they tend to ignore it when attempting empirical assessments.<sup>1</sup>

The humanness of human capital, the fact that it is *by definition* embodied in people, further complicates the patterns of utilization relative to potentials—including discriminatory behavior. Moreover, and this is one of the trickiest problems of all, human-capital formation has no clear cutoff point as to when it is completed, whereas material capital comes much closer to discreteness and identifiability in this respect. Appreciation of human productive capacity, not merely its depreciation rate, is affected by the way in which human capital is used.<sup>2</sup> Simplification is unavoidable, and indeed necessary, in arriving at broad policy guidelines, but which simplification will distort least and serve best, for which purposes, is another matter and a very critical one where human-resource formation is involved.

A meaningful discussion of the many relevant facets of human investment analysis and strategy potentials in a single paper would be quite impossible. I have therefore elected to concentrate primarily on the on-the-job learning component of human resource rental values associated with one or another increment of schooling. This is done in section II, which explores application of human-investment models to the assessment of on-the-job learning for male populations as a whole and by race and region. This analysis is used as a way of focusing attention on both methodological and substantive issues that I regard

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<sup>1</sup> This theme and some of its implications is discussed in my "Decisions for Vocational Education: An Economist's View," forthcoming in Jacob J. Kaufman and Carl J. Schaefer (eds.) *Vocational-Technical Education; Prospectus for Change*.

<sup>2</sup> Some of the implications of this fact are further discussed in my "Principles in the Valuation of Human Capital," forthcoming in the *Review of Income and Wealth*.

as of key importance to human-investment strategy. Section I provides a sketchy background to place section II in the perspective of empirical studies that have been more directly focused upon income growth, especially in the United States and other industrial nations. The entire paper is oriented to such nations, without any explicit consideration of how far what is said may or may not have relevance at lower levels of economic development.

## I. INVESTIGATIONS OF "THE RESIDUAL": A FEW COMMENTS

It is about 10 years since econometricians on both sides of the Atlantic came up with dramatic evidence that conventionally measured inputs into production left unexplained a very large fraction of the measured growth in national products. This set off a variety of attempts to identify, specify, and measure components of "the residual." These efforts are diverse in methods, emphasis, and elegance, but taken together there are certain things they do, and also definitely do not do.

One thing they have done has been to lay the ghost of the older simplistic theories of growth that hung so exclusively on investment in physical capital. This seems to have been fully accomplished, despite such brilliant counterattempts as Solow's embodiment of the residual in new vintages of physical capital,<sup>3</sup> and Arrow's related learning-by-doing justification of gross investment strategy.<sup>4</sup> There were of course those who swung to the opposite extreme and, without Solow's elegance, merely took over "the residual" for the glory of education. This was not done by serious economists, however, and has never been a real threat.<sup>5</sup> In fact, the second major contribution of the surge of interest in "the residual" has probably been to widen the search for sources of growth and to encourage investigations into misidentifications and specification biases.<sup>6</sup> Along the way we have come up with useful alternative perspectives in the treatment of externalities or scale effects: these are variously handled by Griliches in one context or another and simply argued without benefit of production functions or regres-

<sup>3</sup> See Robert M. Solow: (a) "Investment and Technical Progress," in K. J. Arrow, S. Karlin, and P. Suppes (eds.) *Mathematical Methods in the Social Sciences*, Stanford, Stanford University Press, 1960, 89-104, and (b) "Technical Progress Capital Formation, and Economic Growth," *American Economic Review*, vol. 52, No. 3 (May 1962) 76-86.

<sup>4</sup> Kenneth J. Arrow, "The Economic Implications of Learning by Doing," *Review of Economic Studies*, XXIX (3), 1962.

<sup>5</sup> T. W. Schultz was the first to estimate how large a part of "the residual" might be explained by education, but was careful to avoid joining those who were claiming the whole residual for education. Whereas Solow derived a rate of growth in the quality of successive "vintages" of physical capital by imputation from observed trend coefficients in the unexplained "residual," a procedure that captured most of the latter for quality changes in physical capital, Schultz measured educational inputs directly, using a constant marginal returns model. For his first and fullest presentation of those estimates see T. W. Schultz, "Education and Economic Growth," in *Social Forces Influencing American Education*, the 60th Yearbook of the National Society for the Study of Education (ed. N. B. Henry, Chicago, Ill.: Chicago University Press, 1961), pt. II, 46-88.

<sup>6</sup> Contributions by Zvi Griliches have been especially important in this respect. See the following articles: (a) "Specification Bias in Estimates of Production Functions," *Journal of Farm Economics*, vol. XXXIX, No. 1 (February 1957). (b) "The Sources of Measured Productivity Growth: United States Agriculture, 1940-60," *Journal of Political Economy*, vol. 71, No. 4 (August 1963) 331-48. (c) "Production Functions in Manufacturing: Some Preliminary Results," in Conference on Research in Income and Wealth, *Production Relations*, New York, Columbia University Press, 1967. Important also is the article of Zvi Griliches and Dale Jorgenson, "The Explanation of Productivity Change," *Review of Economic Studies*, vol. XXXIV (3) No. 99, 249-83.

sions in Denison's two major books.<sup>7</sup> We are also offered a choice between quality adjustments of physical-capital inputs in the Griliches and Griliches-Jorgenson models (amounting to partial "embodiment" of the residual in physical capital) and Denison's insistence on the greater utility of treating changes in the quality of physical capital as part of "advances in knowledge" and hence of the "increase in output per unit of input."<sup>8</sup> Among them the various "residual" studies contribute insights concerning the likely order of magnitude of both the conventional and many previously neglected factors in economic growth. Most important, a fact that cannot be overstressed, Denison had laid out before us the diversity of growth paths among even advanced nations, and has presented well-reasoned interpretations of those differences. The contrast between the large part of growth he credits to a generation of expanding schooling in the United States as against the small part played by such changes in most of the other nations is one of the more striking of his findings. In his second book, Denison quite explicitly states that his estimates of what education contributes to growth include contributions from any on-the-job training or learning that is associated with schooling, though the casual reader is unlikely to notice this.

Meanwhile, studies by industry or major industrial sectors within the United States have contributed further to appreciation of diversities and common elements in growth paths, along with a better sense of how various pieces in the overall national growth pattern fit together—including among other things how human-resource roles differ with industrial structures and technologies. Methodological contributions have been many, and relationships between measurement methods and assumptions on which they are based have been made increasingly explicit. However, there has been a dearth of theoretical frameworks with empirical relevance incorporated in this work—other than the assumption of national income accounting that factor-price ratios are generally close enough to associated factor-productivity ratios to justify treating them in aggregative analysis as though they matched. One of the most obvious principles seems to be gaining ground, the principle that the capital input measures we need are of *services* of capital, not asset values. Up to a short time ago we were still content with input measures that counted capital assets, regardless of the fact that relations between service or rental values and asset values are extremely variable and depend upon the expected life of the capital good, or the expected remaining working life of a man. (The practical measurement problems in estimating service inputs of physical capital are, of course, much more difficult than in the case of human capital.)

<sup>7</sup> See Edward F. Denison, (a) *The Sources of Economic Growth in the United States and the Alternatives Before Us*, supplementary paper No. 13, Committee for Economic Development, New York, January 1962, and (b) *Why Growth Rates Differ: Postwar Experience in Nine Western Countries*, the Brookings Institution, Washington, D.C., 1967. Of special interest with respect to treatment of education is his elaboration of this part of the work in his "Measuring the Contribution of Education (and the Residual) to Economic Growth," in Organization for Economic Cooperation and Development, *The Residual Factor and Economic Growth*, Paris, 1964, 13-55 and 77-102.

<sup>8</sup> On this theme see Denison's discussion of Zvi Griliches and Dale Jorgenson, "Sources of Measured Productivity Change: Capital Input," *American Economic Review*, vol. LVI, No. 2: (May 1966), pp. 50-61, 76-78.

A decade of investigations into "the residual" has been a decade of accomplishments that has torn away many of our blinders. To be sure, we have hardly begun to grapple with the difficult questions relating to the dynamics and processes of change.<sup>9</sup> And we will no doubt continue arguing over whether it is better to use empirical models that soak up past changes or to leave "advancement in knowledge" where Denison puts it, as an inescapable reminder that there is a lot we do not know. There are three further points that I want to stress before turning to section II, however.

First, we still have a long way to go in categorizing inputs with sufficient refinement to capture critical interaction effects; e.g., those among schooling, experience, race, and sex. We can put this as a principle: satisfactory identification and specification of inputs requires that disaggregation be carried as far as feasible to distinguish internally homogeneous categories of labor (as of other) inputs. The appropriate degree of disaggregation will depend partly upon the uses to which the aggregate input-output analysis is to be put. If, as is usually the case, the main interest of the research is in full and balanced coverage of the major components in national-income growth, disaggregation with respect to human-resource inputs may stop short of what we would aim for if we wanted to specify where the strategically important and most promising human-investment opportunities for the future were most likely to lie.

Second, identifying the main sources of growth in national income is one thing. The benefit-cost analysis of human (or other) investments is another. Just how far the aims of these two types of analysis can or should be conjoined is an important and compelling question, but in filtering out the point or areas of convergence we must be careful to avoid some confusions that have been too common in the past. Costs of schooling embodied in the labor force, for example, have no place in the measurement of contributions of embodied schooling to growth; this is no more than a restatement of the services as against assets measurement principle. Schultz' pioneering work on the contributions of human capital to national-income growth has frequently been misinterpreted on this score. His aggregative analysis anticipated Denison's later findings of the aggregative importance of the spread of schooling as a factor in growth of the national income. But it did not say that schooling was an efficient way of securing that growth. For the justification of investments in schooling relative to other investments, Schultz was relying on the rate-of-return assessments, which do indeed require analysis of *both* costs and returns. The measurement of educa-

<sup>9</sup> Two articles by Richard R. Nelson are especially worthy of attention in any attempt to assess the sources of economic growth or the role of human capital in the growth process. The first of these, "Aggregate Production Functions" (which appeared in the *American Economic Review*, September 1964, pp. 575-607) stresses the interdependence among factors influencing growth and notes in particular that "it is a mistake to try to introduce into the production function variables such as average years of education without an explicit theory that shows *how* that variable should be entered." Subsequently, in an article with E. S. Phelps, he argues that the process by which diffused education contributes to growth is in facilitating or accelerating adoption of the most advanced technologies. ("Investment in Humans, Technological Diffusion, and Economic Growth," *American Economic Review*, May 1966, 69-76.) A priori there is good reason to hypothesize that the demand for highly schooled men is a function of the pace of change; it is adaptation to change and the capacity for continued learning that is the most important "product" of schooling. It does not necessarily follow that schooling more of the population will induce the change, but on this point perhaps we should turn back to Nelson's emphasis on interdependence among factors in the change process. In any case, research directed to identifying and assessing these processes has barely begun. I suspect we will gain more insight on these processes by comparisons among firms and industries than by aggregative measurements.

tion's contribution to growth did not in fact incorporate the cost data, although Schultz used them in a somewhat circular fashion that has given this impression; confusion on this point still remains far too widespread.<sup>10</sup>

My third point, which takes off from the convergence of the first and the second, is one I stressed in a recent paper on "Principles in the Valuation of Human Capital": it is a good principle in measuring human-capital contributions to growth to avoid reliance on assumptions that are not essential to the problem under investigation. Disaggregation should stay as close to empirically identifiable input entities as possible, with minimum abstracting out of components of human resources that can be measured only as we make strong theoretical or empirical assumptions. Thus, *where the problem in hand* does not require the splitting up of the total human capital embodied in an individual into components such as raw labor, embodied schooling, and ability, such splitting is better avoided. By keeping men intact but concentrating on refinement of categories of men (white college graduates aged 40, living in the urban North and with IQ's between 120 and 129) we can retain the full picture with respect to interaction effects and avoid artificial assumption concerning, for example, the degree of substitutability or complementarity between the raw labor and schooling components in the same individual. Evidently we will not be able to categorize with the detail illustrated above, but so long as we want only to measure amounts and qualities of human-resource inputs, and so long as the labor-force categories we have identified are reasonably stable in the distributions of their characteristics, it does not matter how human-capital formation takes place or what in a man's productive capacities may be traced to one or another investment in him. If classification by sex, age, and schooling classifies automatically (and with reasonable stability) by ability, for example, we could dispense with Denison's 0.60 coefficient, designed to separate out the ability from the schooling component. However, as soon as we ask the human-investment questions we will want to know more about which investments (in combination and at the margins) produce which effects in which kinds or orders of men, under which circumstances. One way of approaching such a problem is to stay with the principle just espoused, to continue working with the refined categorizations using regression techniques and income-elasticity measurements to sort out marginal effects. More of this should be done, and Lester Thurow's contribution to the present symposium is to be applauded from this point of view. However, there are advantages in taking another tack as well. Application of theoretical constructs can help us cut into problems where the data are not packaged quite as we might wish even for a Thurow-type analysis, but this is not their most important contribution. By trying out investment theories on the data we may gain more insights into the processes that are and are not at work, finding more to challenge us in seeking out illuminating interpretations of available data and to encourage search for evidence on freshly formulated important questions.

<sup>10</sup> On this and a number of related issues in the measurement of contributions of education, see my "Schultz, Denison, and the Contribution of Eds to National Income Growth," *Journal of Political Economy*, vol. 72, No. 5 (October 1964), 450-65.



## II. SCHOOLING AND EXPERIENCE: AN EXPLORATORY FORAY

While some men have been concentrating on exploration of the residual, and some among them have been giving increasing attention to education's part in national income growth, others have been concerned directly with human-capital theory and its implications. The years 1957 to 1967 have seen the development and empirical application of a very tidy and powerful theoretical framework for analysis of human-investment decisions by individuals and by business firms. Although some of the exponents of this microdecision theory in application to education have undeniably claimed too much for the model and have indulged in unjustified reifications of it, nothing that the most vehement critics have said can alter the fact that we are very much further along with it than we could be without it. The single most important and at the same time the least understood focus it has provided is upon relationships among schooling, labor market processes, and on-the-job training and learning. This complex aspect of the theory has ramifications for both the interpretation of aggregative input-output studies of growth in national income and for attempts to evaluate alternative kinds (as against levels) of vocational and general education, whether among adults or among youth in secondary schools and junior colleges. In this section I introduce a simple experiment in the application of human investment models to analysis of on-the-job learning and schooling components of human capital and its contribution to national income. My purpose is not primarily to present empirical evidence, though the results are certainly challenging. Rather, I use this demonstration primarily (1) to illuminate what such an approach does and does not do in a naive application, and (2) to press what I regard as some critical considerations in the use and interpretation of both empirical human investment studies and aggregative estimates of the "contributions of education" to growth in the national income. For theoretical tidiness it may be well to start with the assumption that earnings match productivity and to wash our brains of any notions concerning effects of backgrounds, health, native ability, and so forth, on the differential earning potentials of better and less educated people of the same age and sex. This simple world will quickly slip away as we examine the empirical findings, but it frees us to concentrate attention on the two major components of investment in human-capital formation that we want especially to assess: the schooling component and the postschool on-the-job-learning component. It is helpful in analyzing this problem to set up three extreme models:<sup>11</sup>

Model 1. Productivity differentials are determined by schooling differentials only, these are realized immediately, and productive capacity is sustained intact until its complete demise, "one-hoss shay" style.

Model 2. Productivity differentials are determined by schooling differentials only, in that all subsequent appreciation of productive capacity is costless. Nevertheless, productivity has an age pattern similar to that observed in cross-section earnings. This is attributed

<sup>11</sup> The following discussion through equation 5 is abstracted with minor changes from my "Principles in the Valuation of Human Capital," *op. cit.*

to differential automatic learning with experience that follows from having had one versus another level (or type) of schooling. All returns are thus again returns to schooling.

Model 3. The potential productivity differentials determined by schooling take effect immediately and are sustained intact throughout working life, but in addition there are opportunity-cost investments in on-the-job training or learning which account for the nonhorizontal shapes of earnings streams. The internal rate to the schooling differential equals the average internal rate on all postschooling investments (over and above those made by men with the next-lower level of schooling). This model can have two variants, the choice between which will not affect the analysis that follows.

3.1. Internal rates of return to all incremental postschool investments are the same. This is the Mincer model.<sup>12</sup>

3.2. Provided their average equals that to schooling, internal rates of return to incremental postschool investments can vary freely.

If the world were like model 1 we would have no problem; in fact, there would be no reason for taking age into account in any way. The only reason for listing model 1 is to help us envisage the others. The second model is also a simple one, differing from the first only in requiring that we distinguish by age in measuring human-capital services. In model 2 complementary postschool learning from experience is fixed by the initial schooling, no matter what the individual may do subsequently.<sup>13</sup>

In model 3 all deviations from a horizontal postschool path of earnings are attributed to postschool investments by the individual in himself. Each such investment takes the form of foregoing higher earnings in a job that would not add to his future productive potential, in favor of taking lower than maximum potential pay in a job that adds to his future productive capacity. In Mincer's empirical estimates it is assumed further that every such investment over and above the postschool investments made by men at the next lower schooling-attainment level will yield the same internal rate of return as the average internal rate for the associated schooling increment and postschool investment increments taken together. And finally, each postschool investment produces an increment to human productive power that neither rises nor declines thereafter up to the end of the working life, when all of them cease completely. How, under these assumptions, might we separate the schooling from the nonschooling component in human-capital inputs for any one time interval (say a year)? Or to pose this same question in another way, what rental values would we arrive at, and how, for each of these components separately? And how would each of the average rental-cost ratios compare with the "average internal rate of return?" How, in turn, would they compare with the average rental-cost ratio for model 2?

<sup>12</sup> See Jacob Mincer, "On-the-Job Training: Costs, Returns, and Some Implications," *Journal of Political Economy*, vol. 70, No. 5, pt. 2 (October 1962), 50-79.

<sup>13</sup> This model is compared and contrasted with the Mincer model in my "The Costing of Human Resource Development," in E. A. G. Robinson and J. E. Valzey (eds.) *The Economics of Education* (proceedings of the 1963 Conference of the International Economics Association), London and New York: Macmillan & Co., 1966.

Whichever model we start with, we have the same formula for derivation of the average internal rate of return to investments in the  $i^{\text{th}}$  increment of schooling and subsequent investments (if any) in on-the-job learning, taken together.

- $Y_{it}$ =earnings in year  $t$  of men who go through the  $i^{\text{th}}$  increment of schooling. (These earnings are not necessarily zero while attending school.)  
 $Y_{t-1,t}$ =earnings in the year  $t$  of men who stop just prior to the  $i^{\text{th}}$  increment of schooling.  
 $D_t$ =direct costs of schooling incurred in the year  $t$ . In a social evaluation these will include all the real resources devoted to an individual's schooling other than his own time.  
 $r$ =the average internal rate of return.

We then have:

$$(1) \quad \sum_{t=-s}^0 \frac{(Y_{it} - Y_{t-1,t} - D_t)}{(1+r)^t} + \sum_{t=1}^n \frac{(Y_{it} - Y_{t-1,t})}{(1+r)^t} = 0$$

where the years  $t=-s$  to  $t=0$  are those spent in the  $i^{\text{th}}$  schooling stage,  $t=1$  is the first postschool year, and  $t=n$  is the last year of working life. The first term of the equation is an expression of total costs of schooling, hereafter designated  $C_i$ . The second term is the present value of the ensuing incremental life-earnings stream discounted at the average internal rate, hereafter designated  $V_i$ . The data are the two earnings streams and the direct costs. The internal rate of return, which is the rate at which  $C_i = V_i$ , is determined by iteration.

If we let  $S_i^s$  stand for the (constant) annual incremental earnings potential (rental potential) attributable to schooling in the Mincer model, we can then write:

$$(2) \quad C_i = S_i^s / r - \left( \frac{S_i^s}{r} \right) (1+r)^{-n}.$$

The second term on the right is a correction for the finiteness of the earning life. Let us designate the schooling rental to cost ratio  $S_i^s / C_i$  by  $R_i^s$ . We then have

$$(3) \quad R_i^s = \frac{S_i^s}{C_i} = r \left[ \frac{1}{1 - \frac{1}{(1+r)^n}} \right].$$

Letting  $a$  represent the term in brackets, we may write  $R_i^s = ra$ , and  $S_i^s = raC_i$ . Since the total number of years of postschool working life for men who have completed the  $i^{\text{th}}$  year of schooling ( $n$ ) will be 40 years or more,  $a$  is very close to 1, and  $R_i^s$  is very close to  $r$ . This means that under the Mincer assumptions the annual incremental rental

values attributable to schooling could be approximated by the value  $rC_i$ , which will be very close to  $S_i^3$ . However, there is a national accounting problem that was not encountered under model 1.

In taking  $S_i^3$  as the measure of the annual contributions of schooling to national income under the Mincer assumptions we have done two things. First we have "purified" our income data to exclude all effects, both positive and negative, of postschool opportunity-cost investments (though this does not of course mean that we have succeeded in securing a measure that is independent of market demand and structure). But in doing this we have taken the estimated potential marginal products associated with the  $i^{\text{th}}$  increment of schooling as the measure of education's contributions, counting in those contributions some foregone earnings in postschool investments that are not measured in the estimates of the national product. If we do this we must make an adjustment in the estimate of national output, to add to gross investment the amount of the foregone earnings wherever  $rC_i$  exceeds  $(Y_{it} - Y_{i-1, t})$ . This will be the case for the early postschool years, so that we cannot entirely escape an age adjustment even when concentrating on  $S_i^3$  alone. If we are to be consistent, we should also count the full costs of schooling, including foregone incomes, as part of the gross investment component of national income in the years  $t = -s$  through  $t = 0$ , whereas in fact national accounts include only the  $D$  component, which is treated as consumption. This latter omission, by the way, is an accounting gap that is relevant whatever our assumptions concerning postschool investments in human resource formation.<sup>14</sup>

Before considering the postschool investment components in human capital and in its services, let us turn back to model 2. In that model we assumed that earnings streams were as observed in the same empirical data we are looking at in model 3, but that all postschool increases in earnings were attributable to prior schooling and that alone. The year  $t$  rental value increment attributable to schooling in model 2 is simply  $(Y_{it} - Y_{i-1, t})$ , which we may designate as  $S_{it}^2$ . Its mean value,  $S_i^2$ , will be simply  $\Sigma(Y_{it} - Y_{i-1, t})/n$ . If the age income stream rises at all steeply this value will be considerably in excess of  $rC_i$ , or  $S_i^3$ .

What do we have under the Mincer assumption when we use observed incremental earnings streams to estimate the rental values of human-capital services? Evidently in this case the difference  $(Y_{it} - Y_{i-1, t})$  is compounded of returns to schooling, returns to postschool investments, and deductions from these of the year  $t$  foregone income "invested" in on-the-job training or learning.<sup>15</sup> The lifetime

<sup>14</sup> In effect national accounting practice depreciates all foregone-income investments immediately. For arguments favoring revision of national income accounts in this respect, see (a) John W. Kendrick, "Restructuring the National Income Accounts for Investment and Growth Analysis," *Särtryck ur Statistisk Tidskrift*, 1966:5, 353-65, and (b) Dudley Seers and Richard Jolly, "The Treatment of Education in National Accounting," *Review of Income and Wealth*, series 12, No. 3, September 1966, 196-209. Also relevant are discussions of my "The Costing of Human Resource Development," and my rejoinder, in E. A. G. Robinson and John Vaizey (eds.), *op. cit.*

<sup>15</sup> And immediately depreciated.

net returns to investments in on-the-job training (after deductions of the foregone incomes entailed) will be:

$$(4) \quad \sum_{i=1}^n J_{it} = \sum_{i=1}^n (Y_{it} - Y_{i-1,t}) - nS_i^3 = n(S_i^2 - S_i^3),$$

and hence we have for the mean rental value of the post-school investment component:

$$(5) \quad J_i = S_i^2 - S_i^3 = S_i^2 - raC_i.$$

Some idea of the magnitudes of  $J_i$  and of  $S_i^2$  relative to  $raC_i$  (or  $S_i^3$ ) in concrete cases is given in table 1 for the 4-year college, 4-year high school, and grade 5-8 increments to schooling with associated on-the-job training in the United States. The last section of the table presents Mincer's internal rates of return. These, like all such estimates, are in fact the average of internal rates to the designated increments of schooling and associated opportunity-cost investments in on-the-job training, if any. Under the assumptions of model 3 they are also  $R_i^3 = S_i^3/C_i$ .

As we should expect, given the low cost of continuing through grades 5-8, internal rates of return at that level of schooling are high. Other things equal, we might nevertheless expect that when these high internal rates were applied to the cost estimates (to derive the per annum lifetime rental values attributable to this increment of schooling), most of the differential between income or earnings streams of men with less than 5 years of schooling as against those who had completed 8 years would be absorbed. Such is not the case, however. In fact, looking at line 3 we find that the experience component exceeded the schooling component of grade 5-8 incremental rental values over a lifetime by at least 50 percent. Among urban white wage earners in 1939, the lifetime mean experience component was four and a half times the lifetime mean rental values attributable in a Mincer model to schooling. For the years 1939, 1949, and 1958, rental ratios for schooling and on-the-job training components combined were respectively 5.58, 2.57, and 2.58 times the internal rates of return, or the  $R_i^3$  ratios for schooling alone. (These estimates are of course based on cross-section observations. Introduction of a generalized exponential growth adjustment of the cross-section age-income data would raise both the internal rates of return and the on-the-job-learning components, but with very little effect on the ratio between them.) Whether the high on-the-job component for 1939 reflects a genuine contrast between career and learning patterns during the prewar as compared with more recent years must remain uncertain until other kinds of evidence are sought out; this could be primarily a reflection of the fact that the 1939 estimates are based on earnings of urban native-white males only, whereas those for 1949 and 1958 are incomes of all males. We cannot discard the 4.58 ratio merely as an error reflecting sensitivity of the measures to internal rates of return.  $J_i/S_i^3$  ratios are indeed very sensitive to those rates, but the 1939 internal rate of return falls tidily within the narrow range from the 1958 minimum estimate of 0.193 and the 1949 maximum of 0.222 for the grade 5-8 increment. Much more prob-

lematic, a point to which I shall return, is the implicit assumption of an underlying homogeneity in the populations from which the age-schooling cohorts observed in a given year have been drawn.

TABLE 1.—*Incremental lifetime mean rental values of schooling and on-the-job learning, U.S. males, 1939, 1949, and 1958*

	1939 (native white urban, salaried)	1949 all males	1958 all males
Ratios of average incremental rental values of on-the-job learning ( $J_i$ ) to average incremental rental values of schooling ( $S_i^2$ ):			
4 years of college <sup>1</sup> .....	0.70	1.33	0.96
4 years of high school.....	1.08	1.80	.41
Grades 5 to 8.....	4.58	1.57	1.58
Cumulative rental values of on-the-job learning: Rates of increase associated with increased education:			
$\frac{\sum_{i=5}^{16} J_i}{\sum_{i=5}^{12} J_i}$ .....	1.38	1.95	2.46
$\frac{\sum_{i=5}^{12} J_i}{\sum_{i=5}^8 J_i}$ .....	1.43	2.97	1.62
Internal rates of return as estimated by Mincer ( $R_i^3$ ):			
4 years of college.....	.110	.106	.115
4 years of high school.....	.125	.118	.151
Grades 5 to 8.....	.209	.222	.193

<sup>1</sup> These ratios are slightly above the estimates given in my "Principles in the Valuation of Human Capital" because they do not incorporate the fine adjustments in the age-earnings profile that were undertaken to insure better comparability with Japanese data in the other publication. Here I omitted the fine adjustments in order to maintain comparability with the 4-year high school and grades 5 to 8 figures. The 4-year college ratios using the finely adjusted income streams were 0.68, 1.18, and 0.86.

Source: Estimates computed on the basis of data and rate-of-return computations in Jacob Mincer: "On-the-Job Training: Costs, Returns, and Implications," *Journal of Political Economy*, vol. LXX, No. 5, pt. 2, October 1962 supplement, pp. 50-79.

Let us look first, however, at the data for college and high school, both of which are of considerably greater importance than the grade 5-8 increments—whether we are considering their contributions to national income at the present time or what increases in these completion levels have contributed to growth over recent decades. Both internal rates of return and ratios of the experience to the schooling rental values are comparatively more stable or less variable in the college figures than in those for the high school years. Overall, the mean lifetime net rental values of on-the-job training roughly match those of schooling. If people with college education were evenly distributed by age, application of the internal rate of return to costs to derive a rental value figure would understate the incremental productivity of college men and their aggregate contribution to the national product by 50 percent.<sup>16</sup> Or putting this the other way, under model 3 assumptions the use of observed incremental rental values for the construction of Denison's education adjustment index will count with education an education-associated job-experience component that is

<sup>16</sup> For development of this point, see my "Schultz, Denison, and the Contribution of Eds to National Income Growth," *op. cit.*

roughly half<sup>17</sup> of the total measured contribution of the "college education increment" (adjustments for ability aside).

The sharpest changes in both internal rates of return and estimated proportions of mean incremental rental values attributable to on-the-job training are clearly for secondary school, and dramatically so for the period 1949 to 1958. The low 1958  $J_i/S_i^3$  ratio relative to 1949 might be viewed as a mere reflection of the sensitivity of the estimates to the internal rate of return. However, even if we arbitrarily reduced the  $R_i^3$  ratio to the 1949 level of 0.118, retaining the income data otherwise unchanged, the  $J_i/S_i^3$  ratio would be raised only to 0.80, as compared with 1.80 in 1949. One of the things we are observing is sensitivity of *all* the estimates, including the internal rate of return, to what is happening at the point of entry to the labor market. If demands for young high school graduates are especially strong and those for eighth graders especially weak there will be an immediate and marked rise in the high school internal rates of return (which are much more sensitive to incomes of young than of older men), and a simultaneous fall in estimates of experience and on-the-job training as indicated by cross-section data.

TABLE 2.—Income effects of schooling and on-the-job learning by race and region, males, 1959

	White males		Nonwhite males	
	North	South	North	South
Ratios of average incremental rental values of on-the-job learning ( $J_i$ ) to average incremental rental values of schooling ( $S_i$ ):				
4 years of college.....	0.85	1.10	(1)	-0.03
4 years of high school.....	.82	.99	.04	.05
Grades 5 to 8.....	* (-.01)	* (-.11)	1.66	.40
Cumulative rental values of on-the-job learning—rates of increase associated with increased education.				
	(2)	(2)	(1)	.78
	(2)	(2)	1.14	1.09
Internal rates of return (as estimated by Hanoch):				
4 years of college.....	.096	.101	(1)	.06
4 years of high school.....	.161	.186	.23	.11
Grades 5 to 8.....	(2)	(2)	.06	.27
Income elasticities with respect to education (from Thurow):				
College.....	2.07	2.15	1.42	1.61
High school.....	.56	.83	.25	.27
Elementary.....	.15	.25	.07	.27
Income elasticities with respect to experience (from Thurow):				
0 to 5 years.....	.44	.45	.21	.13
6 to 15 years.....	.44	.45	.44	.55
16 to 35 years.....	.12	.11	-.05	-.11
Over 35 years.....	-.31	-.32	.....	-.11

<sup>1</sup> There were multiple solutions for the internal rate of return in this group, all falling above 1 or under -.01, because of multiple intersections of the college and high school income streams.

<sup>2</sup> Estimated internal rates of return to the 5-8 year increment of education were extremely high, exceeding 1. The estimates shown here were therefore derived by taking the combined increment from 5th grade through high school, then deducting that for the high school years. The negative results imply less on-the-job training among 8th grade than among 5th grade completers in the white population. This is probably a correct description of the cross section data, but only because of the increasing negative selectivity among younger men not completing 8 grades.

Sources: Rows 1 through 8 taken from or computed on the basis of estimates in Giora Hanoch, "An Economic Analysis of Earnings and Schooling," *Journal of Human Resources*, vol. II, No. 3, summer 1967 (pps. 310-329) and supplementary materials from his Ph. D. dissertation: *Personal Earnings and Investment in Schooling* (University of Chicago, 1965). Rows 9 through 15 from Lester C. Thurow, "The Occupational Distribution of the Returns to Education and Experience for Whites and Negroes," *infra*.

<sup>17</sup> In view of the sensitivity of  $J_i/S_i^3$  ratios to the assumption that the average marginal internal rates of return to schooling and to associated on-the-job training are equal. I would not put much emphasis on the changes in the  $J_i/S_i^3$  ratio for college over the decade 1949 to 1958. The 1939 figure is of course affected by the narrowing of coverage to urban white men in wage and salaried employment.

Before attempting to draw any conclusions from these forays, it would be well to look a little further, this time at estimates broken down by race and region (table 2). In some respects the entries in the top three sections of table 2 are subject to greater error than the estimates in table 1; the table 2 estimates rest upon small samples in some of the cells and the basis for cost estimation is even weaker. ( $J_i/S_i^3$  ratios are highly sensitive to error in the cost figures.) On the other hand, the income data back of table 2 are for earnings, and have been painstakingly "corrected."<sup>18</sup> The  $J_i/S_i^3$  estimates were systematically biased downward throughout by a systematic valuation procedure that maximized the cost figures: this is the result of full opportunity costing in the school years taking Hanoch's age terminal points to mark the foregone-income period. His corrected income data and adjusted age-of-school-termination estimates had the effect of reducing estimated internal rates of return to college among whites. The fact that whites are separated from nonwhites contributes further to this result, but in a minor degree. On the other hand, Hanoch's adjusted income streams show much higher internal rates of return at the secondary level among whites, both North and South, than the all-male 1958 high school rates of table 1. At each schooling level the  $J_i/S_i^3$  ratios for whites are less erratic than the all-male ratios of table 1. As anyone familiar with regional income patterns should expect, the southern internal rates of return exceed those in the North, though by modest margins. The indication that for college and for high school graduates the incremental on-the-job learning components may be of slightly greater relative importance in the South is surprising, however—or would be, if we stayed firmly fixed in the assumptions of model 3. It must be remembered, however, that this whole exercise of splitting off the on-the-job-training component (or of interpreting the difference between  $S_i^2$  and  $S_i^3$  as  $J_i$ ) rests on the Mincer assumption that the average internal rate of return to incremental on-the-job learning equals that to the associated increment of schooling. All that a high  $J_i/S_i^3$  ratio, using these methods, really tells us is that incremental income curves rise substantially with age. This could be a Mincer situation, or it could reflect a substantial element of costless learning through experience, either North or South. It could also reflect, at least in part, the strength of institutionalized seniority components in life-earnings streams where the seniority increases in pay have only loose relationships to productivity.<sup>19</sup> I suspect that what we are observing in fact is a mixture of all these elements, but that the relative importance of the last of them is somewhat greater in the South, though obviously I cannot prove this with the data at hand.

Because of the extremely high internal rates of return to the grade 5-8 increment of schooling among whites (reflecting the very low costs

<sup>18</sup> This is the main empirical purport of Giora Hanoch's Ph.D. dissertation, *Personal Earnings and Investment in Schooling* (University of Chicago, 1965).

<sup>19</sup> More intensive examination of these aspects of labor market institutions and processes is much needed. For some early comments on various age-related deviations of earnings, from social marginal products, see my "Human Capital: Concepts and Measurement." In *Festschrift for Johan Akerman, Money, Growth, and Methodology* (H. Hegeland, ed.) Lund, 1962, 147-168. Reprinted in revised form under the title "Human Capital: Concepts and Measures," in S. J. Mushkin (ed.) *The Economics of Higher Education*, U.S. Office of Education, 1962, 69-92.



of this increment) a deviation in method of estimating the on-the-job training or learning component was necessary, as explained in footnote (b) to table 2. However, there is no reason to question that fuller data would still have given us zero or negative on-the-job components, the negative values indicating that, by model 3 assumptions, on-the-job learning was actually somewhat less in total for the white eighth-grade graduates than for those who had less than 5 years of schooling. But this points up sharply a problem noted earlier, the implicit assumption of the theoretical construct that there is some underlying homogeneity of the base populations with respect to a continuum of individual schooling-investment decisions, and that cross-section data are drawn from such a homogeneous population universe. If in fact the innate ability is lower and the cultural disadvantages are greater for young white men having less than 8 years of schooling than for older white men in this education bracket, as is probably the case, we should expect cross-section grade 0-4 income streams to show a marked rise with age, the differential streams between grade 0-4 and grade 8 graduates being correspondingly flattened. The result is an illusory indication of negative incremental rental values attributable to experience or on-the-job learning, when in fact we are witnessing changing selectivity of early dropouts. The critically relevant racial nonhomogeneity of the underlying base populations in the grade 5-8 incremental estimates of table 1 is further demonstrated by the sharp contrast between the  $J_i/S_i^8$  ratios for 1958 in table 1 for all races combined and those in table 2 for whites alone. This contrast is not explained by even very wide possible ranges of error or sensitivity in the estimates.

The evidence concerning Negroes is in striking contrast to that on whites. At all levels, internal rates are substantially lower for Negroes than for whites. (As already noted, those for whites in the grade 5-8 interval were substantially in excess of one, though Hanoach did not report their actual estimated values.) Among nonwhites in the North, high school education clearly pays off in rate-of-return terms, but there is little additional income to be expected by Negroes from 4 years of college in either region. The most dramatic figures, however, are those indicating the extremely small component for experience or on-the-job training in the earnings of nonwhite college and high school graduates. Nonwhites simply do not have anything like comparable opportunities to learn on the job or to advance with experience. Related schooling-experience contrasts show up in the very different types of measurements taken from Thurow (entered in the lower two sections of table 2).<sup>20</sup>

### III. SOME CONCLUDING REMARKS

Application of human-investment models to assess on-the-job learning versus schooling in lifetime rental values of human capital points up a wide gamut of questions concerning the processes that determine both human-resource production potentials and the extent to which they are utilized. The utility of this exercise does not

<sup>20</sup> To draw any other inferences from Thurow's findings it is necessary to look at his shift coefficients and his methodology. See Lester Thurow, "The Occupational Distribution of the Returns to Education and Experience for Whites and Negroes," in this symposium.

rest solely or even mainly upon the degree to which theoretical assumptions are realized; in fact it underscores deviations from those assumptions that may be most critical in understanding and evaluating human-resource development potentials and blockages.

The findings summarized in table 1, especially for secondary schooling in 1958 as contrasted with 1949, illustrate the sensitivity of internal rates of return and of on-the-job learning to short-term shifts in relations between entry wages and earnings of older men. This raises some critical questions with respect to the uses, and misuses, of internal-rate-of-return models even when generalized growth-rate adjustments are applied to the cross-section data. Evidently there is need to explore much more fully the effects of short-term entry wage variabilities and later income uncertainties both on the individual human-investment decision matrix and on attempts to adapt these models for social decisions. The sensitivity of on-the-job-learning estimates to entry wage variabilities is not due solely to the method used here; it is characteristic of any attempt to distinguish schooling and experience components of earnings by analysis of cross section as against cohort data.<sup>21</sup>

This exercise has pointed emphatically and unambiguously to the importance of deviations from the relevant-homogeneity assumptions of empirical applications of human-investment models. These assumptions may be grouped around three major kinds of problems. First, there may be and indeed are major differences among subpopulations in access to and opportunities for learning at work, even among men who have equal schooling and competence. Second, subpopulations of men with the same nominal schooling may differ markedly in productive potential because of contrasts in the extent to which family and environment were supportive of learning during the school years, or because of differences in the "quality of schooling" received. Third, there are differentials in distributions of native ability by level of schooling attained. The estimates presented in table 2 strongly suggest that negative ability selectivity among men who are not even completing 8 years of schooling has increased. The first two problems are dramatized in the data for Negroes versus whites. Both differences in early background experience and in access to jobs with learning and advancement opportunities are involved in the lower earnings of Negroes and the smaller differentials associated with advance through school. In our nomenclature,  $S_i^2$  tends to be low for Negroes because both  $J_i$  and  $S_i^3$  are low, and both are low because of a combination of constrained earlier experiences and constrained job access. How far the earlier experience may affect the  $J_i/S_i^3$  ratios is not so clear, however. Contrasts between

<sup>21</sup> Including the method used by Thurow. Even historical cohort data will not resolve this problem so far as current decision implications are concerned; naive projection of past developments into the future is clearly unjustified. However, a combination of cohort with cross-section analysis could help improve our understanding of future prospects and meaningful policy alternatives.

Denison gives a well-justified defense of his omission of adjustments for changes in effects of experience on earnings *within* age-education categories. See his *Why Growth Rates Differ*, *op. cit.*, p. 111, footnote 5. Note, however, that the emphasis is on short-term variabilities, and does not relate to shifts in the composition of populations with given schooling attainments (for example, by race or ability). Presumably Denison would pick up at least some of the latter by adjustments in his education index weights through time and by improvements in the allocation and use of human resources (should these or their opposite occur).

North and South incorporate some similar factors, but in comparatively minor degree.<sup>22</sup>

All of this raises some further questions with respect to aggregate input-output assessments of "contributions of education" to economic growth, and how they may be interpreted. Let us grant, as we must, that both internal rates of return to schooling and ratios of on-the-job learning to schooling share in the incremental rental values associated with a given schooling increment will differ among subpopulations. This will not cause too much trouble for aggregative input-output analyses so long as the proportions of, say, northern Negro males with IQ's of 100-110 in the total population of "males age 40 with 4 years of high school training" remain stable. However, suppose that contrasts in earnings by race, region, ability, and so forth *within* each age-education group were to remain unchanged, but that with the diffusion of schooling and migrations to the city the subpopulation mixes within each schooling-age category were to change substantially. This could make a substantial difference in aggregate output projections (or in interpretations of the recent past).<sup>23</sup> So could changes in market discrimination or background conditions.

There is no need to join the structural versus demand-deficiency argument. One may still contend that a human-investment strategy for economic growth requires intensive exploration of the interactions and the complementarities in how human productive potentials are formed and in how they are used. Of course we must be concerned with the improved distribution of opportunity and earnings among the members of the population as a goal in itself. But beyond that, it may well be argued that the greatest promise for future contributions of human resources to national income in the United States lies not so much in the mere piling on of school years as in policies to make those years more effective by concentrating efforts on complementary aspects of human capital development and utilization. I would go further, to argue that such a focus of concern will add another dimension to the growth valuations, in that it is an important and indeed an essential element in development of a strategy designed to improve the *quality* of economic growth, quantitative effects aside. This is the greatest challenge faced by the United States today.

<sup>22</sup> We would undoubtedly find other significant contrasts were we in a position to distinguish the types of communities in which men lived through their adolescent years—not only rural or urban, but rural Appalachian mountains versus rural Iowa or urban ghetto versus middle-class suburb, etc. (Ability measures are often confounded by these factors, with the result that "ability" as measured can increase in the population at large even without any genetic changes.)

<sup>23</sup> Denison's .60 coefficient for ability adjustment does not take care of this problem. If there is, in fact, no change in the "ability" differentials he doesn't need the coefficient to identify labor resource inputs, and it is not worth much if its purpose is to specify human-investment criteria. If there is change in the "ability" distributions within age-education classes, on the other hand, his fixed coefficient will not pick them up.

## NEW TECHNIQUES OF FEDERAL PROGRAM MANAGEMENT

BY WORTH BATEMAN\*

### NEW TECHNIQUES OF FEDERAL PROGRAM MANAGEMENT

It has become common practice for Government analysts to begin reports on their work with a reverent encomium for the Planning, Programing, and Budgeting (PPB) System which no doubt helps to explain why, in the short time since its introduction in August 1965, the letters PPB have become among the best known in Government. The urge to say something about PPB, even in a paper of this sort, seems to be irresistible.

The development of PPB has, in most instances, been characterized by an almost exclusive concern with efforts to more optimally allocate resources *among* programs. Very little attention has been given to the problems of program management; that is, the organization of resources within a program to achieve the greatest effect. This is not unexpected in a department like Health, Education, and Welfare where the bulk of Federal financial resources are channeled through State and local administrative hierarchies, a circumstance which precludes extensive involvement in the day-to-day management and direction of program operations. In a sense, PPB has followed a natural course in emphasizing, through the legislative and budget process, the resource allocation issues among programs since it is precisely in those areas that able people have had the greatest power to produce identifiable change.

There are several reasons, however, why it would be foolish to continue to ignore the problems of program management. First, and most obvious, there are some Federal programs even in a department like Health, Education, and Welfare, in which administrative and managerial responsibilities essentially reside in Washington. Of course, this is most true of agencies with direct operations such as the Food and Drug Administration or the intramural research program of the National Institute of Health. But it also extends to other programs such as research, demonstration, and training which typically provide full Federal financial support to individually selected projects.

Second, precisely because the Federal share of total costs is small in some areas, the opportunity for the greatest payoff may lie with improving the utilization of non-Federal program resources rather than

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AUTHOR'S NOTE.—In the course of writing this paper, I have profited from discussions with a number of persons in HEW, OEO, and the Department of Labor. I owe a special debt, however, to Mrs. Barbara Coughlan, Mr. Andrew Truelson, and the staff of the Office of Special Services, for the assistance which they gave in developing and implementing the system described here. I am also grateful to Miss Yyetta Brehm for research assistance.

adding a relatively small increment of Federal funds to a very large, but ineffectively used base. Perhaps the best example of this is in the area of elementary and secondary education where in an absolute scale the Federal commitment is large, but small in relation to the total. Transforming title I of the Elementary and Secondary Education Act into a program of general aid to education and doubling its size, may not be nearly as effective in upgrading the quality of the Nation's schools as spending a much smaller sum on good research and demonstration projects with adequate dissemination of the results.

Finally, there is a practical reason for turning our attention to the problems of better program management: The budgets of ineffective programs are sometimes cut (although quite often they grow right along with everything else), but they are very rarely eliminated. With that prospect, the better part of valor may be to find out what magic, if there be any, can be used to transform the proverbial sow's ear into the cherished silk purse. Moreover, to the extent that such efforts are successful in changing the *relative* effectiveness of programs, funding priorities may also change.

This paper describes a project evaluation system which was developed during 1967 for the work experience and training program. As such, it meets part of the requirement for improved management techniques in only one program.

#### THE WORK EXPERIENCE AND TRAINING PROGRAM

The W.E. & T. program is funded under title V of the Economic Opportunity Act, and is administered by the Department of Health, Education, and Welfare. It seeks to increase the earning power of the unemployed poor through projects which provide basic education, work experience, training, medical, and a variety of other services. Its trainees are drawn mostly from among the adult recipients of AFDC and AFDC-UP. At the close of fiscal year 1967, there were approximately 250 projects operating in all States (except Alabama), the District of Columbia, and Puerto Rico, with about 55,000 trainees on board.

From the inception of the program to June 30, 1967, 115,000 trainees had participated in the title V program. Of these, approximately 36 percent found employment, and 5 percent went on to advanced training. As table 1 shows, trainees gave a variety of reasons for leaving, and in many cases, these provide some explanation for the apparent lackluster performance of the program in moving a more substantial fraction of trainees into employment. For example, 4 percent of all trainees left the program for lack of adequate child care services; another 10 percent terminated because of illness or disability.<sup>1</sup>

From the viewpoint of this paper, however, the real defect of such aggregative analysis of program performance is that in most cases, variation in the effectiveness of individual projects is ignored and, therefore, is of little practical significance to the program manager.

<sup>1</sup> Moreover, as I have noted elsewhere, the overall employment rate *alone* has little meaning for evaluating program success. Aside from the obvious narrowness of the measure itself, success must be gaged by comparing what actually happened to participants with what would have happened without the program. See: Hearings before the Committee on Education and Labor, House of Representatives, 90th Cong., 1st sess., on H.R. 8311, *Economic Opportunity Act Amendments of 1967*, pt. II, pp. 1305-1317.

For him, it is the project itself, in Baltimore, Cleveland, St. Paul, Denver, or Los Angeles, which is of utmost importance: Is the project effective? If so, what accounts for its success? Can the "best practices" in one project be duplicated in another? It is the project which delivers the goods; and in this sense, the program as a whole is less than the sum of its parts. To demonstrate this, one has only to visit five work experience and training *projects* and then try to answer the question, "What is the work experience and training *program*?" without making reference to any of the projects.

TABLE 1.—Terminations from the work experience and training program through June 30, 1967, by cause

	Number	Percent
Total terminations.....	115, 200	100. 0
Left program and found jobs.....	41, 100	35. 7
Completed training but not immediately employed.....	15, 400	13. 4
Disability and medically unqualified.....	11, 518	10. 0
Poor attendance.....	10, 827	9. 4
Entered advanced training.....	5, 300	4. 6
Child care.....	4, 380	3. 8
Dissatisfied with assignment.....	3, 670	3. 1
Projects terminated.....	3, 237	2. 8
Lack of progress.....	2, 189	1. 9
Ineligible.....	1, 843	1. 6
Transportation problems.....	1, 082	. 9
Misconduct.....	921	. 8
Educational limitations.....	676	. 5
Refused assignment.....	438	. 4
Hours of work.....	346	. 3
Other (reasons not specified).....	12, 473	10. 8

Source: Based on data prepared by Social and Rehabilitation Service, Department of Health, Education, and Welfare.

### THE CAUSES OF VARIATION IN PROJECT EFFECTIVENESS

Factors contributing to differences in the relative effectiveness of individual projects are: (1) The location of the project; (2) the characteristics of the trainees served; (3) the availability of services in relation to requirements; and (4) the skill with which these services are organized to accomplish the mission.

Other things equal, projects operating in areas of high unemployment would be expected to be less successful than those operating in areas where labor markets are tight. Similarly, projects in which participants have a higher proportion of females, a lower average level of educational attainment, a higher proportion of nonwhites, and a higher average age will probably be less successful in ultimately achieving the objectives of greater earnings of its trainees. We expect this *a priori* from studies of the labor force participation, employment, and earnings history of females in relation to males, whites in relation to nonwhites, the more highly educated in relation to the less educated, and older persons in relation to those who are younger. Similarly, projects in areas where resources for basic education and training are scarce and day care or similar facilities are unavailable will be hard pressed to produce results comparable to other projects serving essentially the same types of trainees and facing similar labor market conditions. Finally, the skill brought to the job by the manager

of the project is crucial in explaining differences in project effectiveness.

The importance of some of these factors is illustrated in table 2 which compares one of the largest rural projects (19 counties in eastern Kentucky) and one of the largest urban projects (Cleveland, Cuyahoga County, Ohio). Also included are data on 471 men terminated from the Ramsey County (St. Paul), Minn., project from November 1965 through October 1966. These afforded comparisons of an all-male group in an urban area with a low unemployment rate and the eastern Kentucky all-male group located in a rural economically depressed area. The men in both localities are unemployed heads of families not receiving assistance under the AFDC program (group II cases).

TABLE 2.—Selected data on title V trainees in Cleveland, eastern Kentucky, and St. Paul projects

	Cleveland	Eastern Kentucky	St. Paul
Total terminations to September 1966.....	1,613	1,936	471
Employment:			
Total trainees employed.....	734	640	330
Percent employed.....	45.5	33.1	70.1
Local labor market conditions: Unemployment rate (percent).....	2.8-3.5	7.2-31.4	2.0
Participant characteristics: <sup>4</sup>			
Percent male.....	71.6	100.0	100.0
Percent white.....	20.0	99.5	87.9
Average age (median):			
Male.....	36	39	35
Female.....	31		
Services:			
Percent in adult basic education.....	22.5	86.0	13.5
Percent in high school equivalency.....	12.5	8.0	33.0
Percent in vocational instruction.....	25.5	2.5	63.5
Average health expenditures per case month.....	\$10.46	\$7.17	\$6.18
Total day care expenditures.....	\$70,537	0	0

<sup>1</sup> Group II male trainees only for period from Oct. 1, 1965, to Oct. 31, 1966.

<sup>2</sup> Range from low of 2.8 percent unemployment rate in April 1965 to high of 3.5 percent in July 1966.

<sup>3</sup> 1966 annual average unemployment rates for 19 eastern Kentucky counties:

Bell.....	15.6	Knox.....	20.7
Breathitt.....	31.3	Magoffin.....	23.9
Clay.....	15.6	Menifee.....	7.5
Floyd.....	14.2	Martin.....	20.4
Elliott.....	NA	Morgan.....	8.0
Jackson.....	7.2	Owsley.....	31.4
Leslie.....	29.4	Perry.....	18.3
Letcher.....	11.4	Pike.....	14.5
Knott.....	18.3	Wolfe.....	18.3
Harlan.....	12.6		

<sup>4</sup> Data on participant characteristics and services derived on basis of average number enrolled: (1) in Cleveland project, from Mar. 1, 1965, to Aug. 31, 1966; (2) in eastern Kentucky project, from July 1, 1966, to Dec. 31, 1966; (3) in St. Paul project, from Oct. 1, 1965, to Oct. 31, 1966.

<sup>5</sup> Mean age in years.

Source: Based on data prepared by the Social and Rehabilitation Service, Department of Health, Education, and Welfare.

As table 2 shows, local labor market conditions, as measured by the area unemployment rate, range from a high of 31.4 percent in Owsley County, Ky., to a low of 2 percent in Ramsey County (St. Paul), Minn. The average age is highest in eastern Kentucky standing at 39 years and lowest (for males) in St. Paul. Relatively, the Cleveland project has a higher proportion of women and also a higher proportion of nonwhite participants. An image of the differences in average education level becomes clear by comparing enrollments in

adult basic education: 86 percent in eastern Kentucky, 23 percent in Cleveland, and 17 percent in St. Paul. These facts make the wide variation in the effectiveness of these projects understandable.

The degree of control which the program manager has over these sources of variation in project effectiveness is a function of time, and, of course, his willingness to exercise it. At any given moment, the factors accounting for success are fixed: projects are operating in given locations, facing given economic conditions, serving trainees with given characteristics with the resources available either through the project or in the community, and are being directed by project managers with varying degrees of competence. Theoretically, this moment in time could be as short as a month or as long as a year since projects are approved for a year at a time and renewals and new projects are funded every month during the year (i.e., projects are approved every month during the year for a full year). For practical purposes, what this means is that it takes at least a full year to make any radical changes in the overall effectiveness of the program by altering the distribution of projects (or funds in projects) among areas with different economic conditions, types of trainees, and resource capabilities (including administrative skills). Moreover, the geographical distribution of projects (and, hence, to some extent, these factors) is not open to unrestrained manipulation by the program manager pursuing maximum program effectiveness. His discretion is significantly limited by political considerations, State-Federal relations, and the very fact that one of the original purposes of the program was to stimulate the States to adopt similar programs on a permanent basis.

Nevertheless, it is important to get a more precise and powerful measurement of the relative significance of the factors accounting for differences in the success of individual projects. Doing so gives us a capability for identifying good, bad, and average projects which face essentially the same conditions. This is equivalent to saying that not all variation in project success can be explained by the factors discussed above. To the extent this is true, the crucial question then becomes: Is the residual variation unsystematically related to any cause or can it be identified with some unique attribute(s) of individual projects?

Although the problem has been stated comprehensively, the empirical solution remains piecemeal. Taking the employment rate of trainees as a measure of project effectiveness, a number of regression equations were fitted to these observations using the characteristics<sup>2</sup> of the trainees in the project and State unemployment rates as explanatory variables. Although these factors were tried in numerous combinations, the equation which yielded the best fit and explained the largest proportion of total variation in project effectiveness was the employment rate of trainees as a linear function of the unemployment rate in the State in which the project was located, the proportion of male trainees in the project, and the average age of trainees in the project.

<sup>2</sup> The characteristics used in the analysis were: (1) average education level; (2) average age; (3) male trainees as a proportion of the total; (4) white trainees as a proportion of the total; and (5) health status as measured by the proportion of trainees terminating for reason of illness or disability.



On the basis of this analysis, project categories were defined using unemployment rates, percent male, and average age as stratification variables. The intervals chosen in defining the categories were:

Unemployment rate (percent)	Percent male	Average age
Less than 3.0.....	0 to 24.9.....	Less than 30-
3.0 to 5.9.....	25.0 to 49.9.....	30 to 39.
6.0 to 8.9.....	50.0 to 74.9.....	40 and
9.0 and above.....	75.0 to 100.0.....	above.

Each of the projects was then assigned to one of the 48 possible classifications.<sup>3</sup>

### DEVELOPING A PROJECT RATING SYSTEM

Having identified projects operating in similar economic conditions and having trainees with similar characteristics, a set of effectiveness measures was needed to order projects according to their success in achieving the objectives of the program. Four such measures were chosen: The employment rate of trainees, the occupational distribution of employed trainees, the average wage of employed trainees, and the fraction of trainees who went on to other training programs.

The occupational distribution of employed trainees and the average wage, give some indication of the "quality" of outcome as opposed to the sheer success of a project in moving trainees into employment since such measures give some subjective notion of the degree of improvement in economic status. Moreover, these qualitative measures give some idea of the permanence of such improvements (all the effectiveness measures are based on trainee status—employed, unemployed, etc.—at the time of termination).

Those trainees going on to other training programs will ultimately be successful or unsuccessful in getting better jobs. If the exact results were known, it might be argued that this effectiveness measure could be discarded and the results in terms of employment, occupation, and earnings be incorporated with those of other trainees not going on to other training (recognizing, of course, that the outcome is the joint result of both title V and the other program). The point is academic, however, since followup information is not currently available on those going on to advanced training. On the other hand, disregarding this outcome altogether would seriously understate the accomplishment of those projects which are geared primarily to preparing trainees for occupational training programs available in the community under auspices other than title V. Despite its limitations, it is, therefore, included in evaluating project effectiveness.

On the basis of these factors, each of the projects is rated or ranked in relation to all other projects falling in the same category. The ranking of 20 projects falling in two of the 24 categories<sup>4</sup> is shown in table 3. As the table shows, the South Carolina-306 project is one on place-

<sup>3</sup> It was possible, in most cases, to use unemployment rates for more narrowly defined areas in preference to State unemployment rates. This information was obtained from published and unpublished data of the Bureau of Labor Statistics.

<sup>4</sup> Although there were 48 possible categories, all of the projects fell within 1 of 24 categories.

ment, five on occupational distribution, 10 on wages, and three on advanced training. The rank which a project receives on any one effectiveness measure is also related to the total number of projects in a category. For example, this project is one out of 10 projects on placement, five out of 10 on occupational distribution, and so forth. An overall rating for the relative effectiveness of a project on all items is obtained by adding each of these ratios ( $1/10 + 5/10 + 10/10 + 3/10 = 19/10 = 1.9$ ) to get an aggregate ratio or index. A low number indicates a relatively good project; a high number a relatively poor project.

The overall rating derived above gives a weight of 1 to each of the separate ranks. Of course, this would be altered if a different set of weights were used. To some extent, using uniform weights implies a higher value for the "quality" of outcome (in the sense that term was used above) since three of the four measures are more closely related to that aspect of effectiveness. The particular set of weights chosen reflects, of course, the relative importance attached by the evaluator to a particular result. At the present time, a uniform set of weights seems most acceptable to those using the system.<sup>5</sup>

TABLE 3.—*Work experience and training project ratings for selected categories*<sup>1</sup>

CATEGORY I										
Project	Ter- mines	Per- cent em- ployed	Rank	Per- cent ad- vanced train- ing	Rank	Occu- pa- tional distribu- tion <sup>2</sup>	Rank	Average monthly wage	Rank	Index
Minnesota (281).....	106	38.9	10	24.5	1	55.9	2	\$281	1	140
Maryland (171).....	444	40.9	9	16.4	2	51.9	3	245	4	180
South Carolina (306).....	54	64.7	1	14.8	3	41.9	5	147	10	190
Iowa (242).....	62	48.3	4	6.5	8	42.9	4	230	5	210
Pennsylvania (119).....	52	42.6	8	3.8	10	75.0	1	252	3	220
Wisconsin (41).....	708	42.9	7	6.9	7	30.8	8	256	2	240
Indiana (667).....	154	43.0	6	9.1	6	37.5	6	207	6	240
Mississippi (295).....	196	57.9	2	12.8	4	22.9	10	154	9	250
Florida (343).....	102	50.6	3	5.9	9	30.2	9	177	7	250
Florida (190).....	204	45.1	5	9.3	5	31.8	7	170	8	250

CATEGORY VIII										
Kansas (361).....	11	63.6	5	18.2	4	57.1	3	284	4	160
New Jersey (698).....	261	69.1	3	8.0	8	57.7	2	294	3	160
Colorado (226).....	65	59.6	10	10.7	7	64.5	1	306	2	200
Alaska (331).....	14	60.0	8	57.1	2	0	10	609	1	210
New Hampshire (315).....	22	60.0	8	59.1	1	38.5	7	281	5	210
Maine (31B).....	314	75.3	2	15.9	6	55.1	4	235	10	220
Minnesota (284).....	23	65.0	4	17.4	5	44.4	5	250	9	230
Colorado (220).....	64	61.0	6	20.3	3	33.3	8	251	8	250
New York (623).....	40	82.4	1	7.5	9	8.4	9	270	7	260
New Jersey (662).....	160	60.3	7	3.1	10	43.8	6	274	6	290

<sup>1</sup> Category I includes all projects operating in areas with unemployment rates less than 3 percent, serving trainees with an average age of between 30 and 39 years, of whom less than 25 percent are male. Category VIII includes all projects operating in areas with unemployment rates of 3 to 5.9 percent, serving trainees with an average age between 30 and 39 years, of whom 50 to 75 percent are male. All project data are for fiscal year 1967.

<sup>2</sup> Proportion of trainees employed as managers, office workers, clerks, and operatives. Complement employed as private and nonprivate household service workers, farm laborers, and other unskilled laborers

<sup>5</sup> An analysis of the pairwise correlation among the ranks in each category showed in general no significant relationship. In a few categories, however, there was a significant negative rank correlation between placement rates and the proportion going on to advanced training and average wages and the proportion going on to advanced training. This suggests that a job today is more attractive than training which over the long run offers a chance of a better job and perhaps better wages. This is not unreasonable if persons in this program discount the future highly and attach a low probability to the effectiveness of training in raising earning power.

## RESIDUAL VARIATION IN PROJECT EFFECTIVENESS

It is apparent from table 3 that there is considerable variation in project effectiveness even after account is taken of local labor market conditions and trainee characteristics. Two other factors mentioned above—the availability of services in relation to requirements and the administrative skill of the project director—would no doubt explain some of the remaining variation in project success. It is not possible to test this hypothesis at the present time because the data necessary to do so simply do not exist. However, steps are being taken which will soon alleviate this problem.

An evaluation questionnaire has been developed to gather data which will identify shortages of critical services and provide some crude indicators of administrative skill. The questionnaire is currently being modified as a result of field tests conducted in six title V projects, and should be ready for use on a wide scale by the end of this year. As a sample of the kind of information being collected, table 4 shows responses to selected items on the questionnaire obtained from the Columbus, Ohio, title V project.<sup>9</sup> The table indicates that whereas the availability of pretraining, employment, and remedial medical services was generally sufficient to meet trainee needs, educational and vocational services were in relatively short supply.

The availability of this kind of information for all projects would contribute greatly to an understanding of the causes of variation in project success and offer important clues about what is required to make a project more effective.

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<sup>9</sup>The information is obtained from interviews with the project director, staff, and case records. It should be noted that possible weaknesses in a project are often discovered because data required by the questionnaire are not obtainable. For example, one part of the questionnaire asks for educational attainment at the time of enrollment and at termination for those assigned to basic education or high school equivalency courses. If a project does not have such a record, it may or may not mean that achievement is poor. If it is poor, the only way one can know about it is through such records and likewise, the chance of improving it through negotiations with education officials is greatly enhanced.

TABLE 4.—Responses to selected questions from evaluation questionnaire, Columbus, Ohio, title V project <sup>1</sup>

Service	Number of trainees need- ing services		Number of trainees receiv- ing services	
	Terminees	Currently assigned	Terminees	Currently assigned
(1) Pretraining services:				
(a) Preparation for employment <sup>2</sup> .....	280	150	280	150
(b) Instruction in home management <sup>3</sup> .....	150	150	150	150
(c) Instruction in child care.....	150	150	150	150
(2) Employment services:				
(a) Guidance and employment counsel- ing.....	280	150	280	150
(b) Testing.....	140	75	140	75
(3) Remedial medical services:				
(a) Physical examination.....	100	50	100	50
(b) Dentures.....	40	20	30	10
(c) Eyeglasses.....	20	10	20	10
(4) Educational services:				
(a) Adult basic.....	90	50	60	36
(b) High school equivalency.....	84	45	30	15
(5) Vocational instruction.....	280	150	128	428

<sup>1</sup> The information shown in this table was collected during an onsite evaluation of the Columbus project on Oct. 10 and 11, 1967.

<sup>2</sup> Personal hygiene, attitudes toward work orientation, and motivation.

<sup>3</sup> Diet, consumer education, nutrition, etc.

<sup>4</sup> The 26 were distributed among the following vocational training courses:

Cosmetology.....	15
Operating room aids.....	3
Practical nursing (LPN).....	2
Auto mechanic.....	2
Automation (IBM).....	2
Barber.....	2

### USES OF THE RATING SYSTEM

The original purpose for developing the rating system was to provide a way of identifying good and bad projects operating in the face of similar constraints. The basic premise was that this would lead to the discovery of "best practices" which could be incorporated in poor projects, ultimately resulting in improvements in project and program effectiveness. Although this aim has not been aggressively pursued (in part because the system has only been in operation since September 1967), the system has been put to a variety of other uses.

First, a program and financial plan has been developed for fiscal year 1968 which shows tentatively the projects which have been selected for phaseout and renewal, and for the latter, possible funding levels. The information obtained from the rating system was an important input to these decisions.

Second, the system has been used extensively in the negotiations with the Department of Labor concerning its role in the work experience and training program. The Economic Opportunity Amendments of 1966 provided for a much closer relationship between DHEW and the DOL in carrying out the objectives of title V. Beginning with fiscal year 1968, projects to be funded have fallen into one of three categories: (1) Type I—no additional Labor Department input; (2) type II—Department of Labor would absorb some of the manpower functions being performed by title V employees; and (3) type III—all manpower functions would be taken over by the Department of Labor. Faced with higher Labor Department costs and the prospect of an extremely tight budget, it was very important to select title V projects for additional Labor Department input in a way which maximized the contribution they could make to program effectiveness and minimized needless disruption (i.e., a changeover in responsibility for certain functions to no effect) in program administration. Preventing such disruption had a clear additional benefit: more trainees could be served with the same funds the greater the number of trainees in type I projects because Labor Department costs per trainee were higher than those in DHEW. The rating system in conjunction with the evaluation questionnaire has played and is playing an important role in determining the desirability of continuing a project as it is or converting to a type II or III project.

Finally, the rating system has the potential for spurring better project management just by the very fact that it exists and is being used. Leonardo once classified persons as follows: those who see, those who see when shown, and those who do not see. Shaw proposed two categories: those who can and do and those who can't and teach. With a slight modification these can be combined as follows: those who see and do, those who see when shown and do, those who see and don't do, those who see when shown and don't do, and those who don't see and don't do.

Most of the discussion so far has concerned measures which will improve the operation of programs administered by the first two types. Unfortunately, among the administrators and managers of any programs, there are some who fall in the latter three categories. The real challenge to strengthening our programs lies in motivating these to adopt the "best practices" of the others.

There are essentially three approaches. The first would convince people to behave differently by making them knowledgeable of the full consequences of different courses of action. The assumption here is that people don't do the right things because they are ignorant of the consequences. This might be characterized as the platonic approach.

The second method would provide punishment for not doing the right things. The trouble with our present system in this respect is that the subtleties of punishment are rarely relied upon. Instead, we use the ultimate weapon; that is, the threat of cutting off a project if it is bad. The third is the method of reward for good works; what has been described as doing well by doing good. Unfortunately, our present system of compensation does not reward all individuals according to the contribution which they make. Quite frequently, reward is based on endurance of the individual and how successful he is in keeping out of trouble. Here, the compensation system itself is probably beyond reform. Other ways of rewarding excellence such as monetary awards, medals, and other badges of real success must be used.

The rating system has ingredients of all these methods: actions of the project director have a direct bearing on whether a good or bad score is turned in; a bad score is a punishment in itself and also contains the threat of possible unpleasant events to come; a good score is a reward in itself, and assumes continued support of the project and a minimum amount of meddling by major and minor figures in the administrative hierarchy. For this reason, alone, the extension of this or analogous systems to other programs in DHEW and throughout the Government offers one of the most promising ways for increasing the return on the Federal investment in human resource programs.

## FEDERAL PROGRAMS FOR HUMAN RESOURCE DEVELOPMENT

BY MICHAEL S. MARCH\*

One of the striking developments in recent years has been the growing recognition of the importance of developing the Nation's human resources. The Federal Government has been increasingly drawn into this area of action. Long-established patterns have been greatly changed in the last 5 years. The number, scope, and size of Federal programs directly affecting social welfare and human resource development have grown.

Many factors are responsible for this new Federal concern and initiative. Growing technological and scientific complexity necessitates a skilled labor force. Urbanization creates many problems. An increasing shift from farming and extractive industry to a service economy resting more and more on social and scientific knowledge contributes to dislocations. Inaction or inability by States or local sources to finance the programs necessary to meet the needs of a growing population in an increasingly complex society creates demands for Federal action.

Even in a period of high economic activity there is much evidence that many social welfare problems—including many problems involving human resource development—are far from solved. To mention a few:

Hundreds of thousands of hard-core unemployed live in pockets of poverty in the rural areas and central city ghettos, and hundreds of thousands of youths each year enter the labor force ill equipped to secure remunerative employment.

Negroes, Indians, and Spanish Americans are below the national average in education and in health and far above in their share of social ills.

Millions of children are reared in poverty; mental retardation hits many who could be spared by proper preventive measures against physical and cultural deprivation. A third of the young men cannot pass the basic mental and physical requirements for the Armed Forces.

Poverty is transmitted from generation to generation—from uneducated father to uneducated children, or from mother on welfare to daughter and even granddaughter on welfare.

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Hundreds of new programs have been created, but the service delivery systems in many of the localities tend to be fragmented and ill equipped to render effectively coordinated, continuing services to help the deprived and the disadvantaged who most need help.

Growing awareness of these problems and broadening knowledge of the dynamics of social development have made possible new initiatives. Economists have discovered that in recent decades investment in education and knowledge perhaps have been even more responsible for the growth in economic productivity of the American economy than capital investment. The highlighting of poverty and racial problems has reenforced the recognition that opportunity for full development of the individual is the foundation both of civil and social rights and of genuine economic opportunity. There is also greater acceptance of the idea that a productive society can afford the public services which develop the ability of an individual and his children and support the economic security programs which insulate him and his family from some of the economic risks inherent in a rapidly changing economy.

This paper summarizes and analyzes past trends in Federal programs concerned with human resources development and social welfare, particularly in the education, health, cash benefits areas. It also touches briefly on the present process of resource allocation and comments on the analytical structure which underlies Federal decision-making in these areas, with some illustrations of the results.

#### WHAT IS MEANT BY HUMAN RESOURCE DEVELOPMENT PROGRAMS?

The analyst who undertakes an overview of Federal "human resource development programs" runs immediately into two sets of barriers:

First, there is no readily available compilation which presents a comprehensive picture of all Federal human resource programs over a period of years.

Second, the definition of human resource development is not entirely clear even though many groups of programs have been categorized and described.

While an exhaustive survey of all the available data has not been made, the principal compilations of information on Federal programs which relate to human resource development include the following:

Tabulations of "Social Welfare Expenditures" published by HEW in the *Social Security Bulletin*. This comprehensive historical series covers expenditures for education, health, public aid, and social insurance programs, as well as certain other social welfare programs. Researchers owe a big debt to Mrs. Ida C. Merriam and her staff. The series is not, however, intended to depict the human resource development programs per se and does not include many environmental programs.

Compilations of *Federal Programs for the Development of Human Resources* published in three volumes by the Joint Eco-



conomic Committee in December 1966. These volumes cover a broader range of programs than the HEW series, but do not provide a historical series (other than the HEW data), and the summary tabulations are rather restricted in quantity.<sup>1</sup>

Analytical tabulations published in the *Special Analyses*, Budget of the United States (and previously in the Budget Document), covering groups of programs, particularly "Federal Education, Training, and Related Programs," "Federal Health Programs," and "Federal Research, Development, and Related Programs." These special analyses are not pulled together into a nonduplicating, comprehensive picture of programs which are directly related to human resource development, and typically present data only for recent years.

Certain other fragmentary special tabulations published in the Budget Document which have been prepared by the Bureau of the Budget or by other Federal agencies. Among these are figures on Federal aid to the poor and aged.<sup>2</sup>

Data in the *Special Analyses*, Budget of the United States, which identify "developmental expenditures," particularly for education, health, and research and development. Although this analysis by "character" has been published since the 1951 budget, figures in it would have to be retabulated to present a comprehensive view of Federal human resource development programs.

The "functional" tabulations of Federal administrative budget and trust fund expenditures which are published in the budget on a 12-year basis. A combination of "education," "health, labor, and welfare," "housing and community development," and "veterans' benefits and services" categories might provide an ad hoc measure of programs which relate to social welfare and human resource development. However, these categories do not include training and health programs of the Defense Department and of many other agencies which likewise contribute to the development of our human resources. Appendix B presents an excerpt of data from the 1968 budget to illustrate what the total of these might be.

Subsequent sections of this paper utilize data from various sources. Closely related is a second obstacle: namely, the lack of underlying by the development of a comprehensive series covering, in an appropriate framework of categories, all Federal activities which are germane to human resource development.

Closely related is a second obstacle; namely, the lack of underlying concepts or criteria and definitions for the identification of Federal programs which promote human resource development directly and indirectly. At present there is a certain amount of confusion about which programs should appropriately be included in such a tabulation,

<sup>1</sup> *Federal Programs for the Development of Human Resources*, Subcommittee on Economic Progress, Joint Economic Committee, 89th Cong., 2d sess., three volumes (1966). The principal summary tabulation is presented on p. 20 of vol. 1.

<sup>2</sup> See app. A to this paper, "Public Programs for the Poor: Coverage, Gaps, and Future Directions," for a summary of these data by category and by agency. See also p. 136 of the 1968 Budget Document and reports of the President's Council on Aging.

because varying concepts are advanced by agencies or by groups which are concerned with different sets of problems or missions.

In its highly useful compendium the Joint Economic Committee staff has adopted a very broad set of definitions. While the questionnaire was designed to aid in preparing "a review of Federal programs that involve an investment in people," it stated that "the test for inclusion is that the programs are directed primarily toward the maintenance or development of people in the United States, or alternatively, have as a secondary effect a substantial impact on development of our human resources."<sup>3</sup>

Although the committee presented its programs by organizational groupings, it suggested<sup>4</sup> that in keeping with its broad framework an appropriate arrangement directed to the analysis of the economic role might be employed using the following broad categories:

Environmental improvement programs.

Education and training programs.

Health care and improvement programs.

Income maintenance and family support programs.

Other programs.

At the same time, it recognized that the utilization of any single classification may be inadequate because particular Federal programs may serve more than one of these social purposes.<sup>5</sup>

A major forward step in the overall analysis of human resource programs would be the development of more clear-cut definitions of the role of various programs. Such an analytical framework would be more helpful in the task of Federal resource allocation if it classified the expenditures in alternate ways including by function (purpose), administering agency, program, character (type), recipient organization, characteristics of individuals aided (especially income, race, and age), and geographical area (e.g., State, county and rural, urban). No single classification can serve to illuminate all the public policy facets of these complex programs.

It would be even more fortunate if these informative, crosscutting analyses on the entire range of Federal human resource programs could be prepared in time to be considered by heads of agencies, by the President, and the Congress before—rather than after—their respective decisions regarding budget recommendations or appropriations are made. The reasons for this will become clearer as the results of present decisionmaking processes are presented in the following sections.

#### THE DEVELOPMENT OF FEDERAL HUMAN RESOURCE PROGRAMS SINCE 1935

In view of the rather spotty availability of data described above, one of the best ways to paint a picture of the development of Federal programs in the human resource area is to analyze the data on "Social Welfare Expenditures" compiled by the Department of Health, Education, and Welfare.

<sup>3</sup> *Federal Programs for the Development of Human Resources*, op. cit., vol. 1, p. 105.

<sup>4</sup> *Ibid.*, p. 27.

<sup>5</sup> *Ibid.*, p. 35.

## FEDERAL EXPENDITURES FOR SOCIAL WELFARE

Table I from this source depicts fairly well the evolution of the large segment of Federal programs that play a major role in human resource development. In this table the HEW figures have been roughly reclassified into four categories. Regarding the Federal programs, it shows that:

In 1935 the social welfare programs were embryonic, except for the \$2.4 billion of emergency work and relief programs to meet depression problems. All other social welfare programs totaled about \$800 million.

In 1940 the same general situation continued except that the cash benefits programs had been started on a broad front. The social security programs to provide income maintenance were one of the great social inventions of the New Deal. It has taken more than 30 years to evolve them on a major scale.

Cash benefits programs have dominated the social welfare scene since 1950. From 1950 to 1960 they increased 3-fold, to \$22.1 billion, and from 1960 to 1967 they increased by two-thirds, to \$36.8 billion. In 1967 they comprised 66 percent of all Federal social welfare outlays as defined by HEW, and 69 percent of the \$53.6 billion spent in the three categories of education and training, health, and cash benefits.

Federal involvement in the "education and training" and "health and medical care" program areas—if special military and veterans programs are excluded—was quite modest until the middle 1960's. In both these fields, however, a new era began in 1965 with the enactment of laws such as the Elementary and Secondary Education Act of 1965 and the Social Security Amendments of 1965. The latter authorized the medicare programs for the aged and the medicaid program which extends to a much broader range of needy and medically indigent people.

Federal outlays for other social services or aid—again excluding the special work and emergency relief programs during the great depression—have been gradually rising. The major areas include welfare services, employment services, and public housing. A new spurt has also begun with the enactment of the economic opportunity programs in 1964, mostly on the community action program front.

TABLE I.—Federal Government "social welfare" expenditures, 1935-67, selected fiscal years

[In millions]

Category and type of program	1935	1940	1950	1960	1965	1967
A. Education and training programs.....	\$53	\$77	\$2,864	\$1,323	\$2,777	\$6,659
Elementary and secondary education.....	21	15	47	442	781	2,458
Higher education and other (ex-veterans).....	12	19	48	293	1,220	2,114
Special veterans programs.....			2,692	410	43	378
Vocational rehabilitation (ex-medical).....	1	2	16	46	100	229
Vocational, adult, training allowances, and other.....	19	41	61	132	653	1,481

TABLE I.—Federal Government "social welfare" expenditures, 1935-67, selected fiscal years—Continued

[In millions]						
Category and type of program	1935	1940	1950	1960	1965	1967
<b>B. Health and medical care programs</b> .....	<b>\$104</b>	<b>\$179</b>	<b>\$1,362</b>	<b>\$2,918</b>	<b>\$4,812</b>	<b>\$10,164</b>
Health insurance for the aged.....						3,393
Hospital and medical care:						
Military programs (including dependents).....	28	45	386	880	1,115	1,723
Veterans programs.....	48	62	583	879	1,121	1,271
Civilian programs:						
Medical vendor payments (PA).....				200	555	1,135
Other.....	12	16	46	103	138	158
Medical research.....	(1)	3	73	449	1,174	1,476
Medical facilities construction:						
Military.....			1	40	35	58
Veterans.....	3	14	162	60	81	51
Civilian.....	3	3	67	195	288	356
Public health, maternal and child health, etc.....	10	36	94	112	325	543
<b>C. Cash benefit payments</b> .....	<b>620</b>	<b>1,607</b>	<b>7,435</b>	<b>22,073</b>	<b>30,753</b>	<b>36,788</b>
OASDI.....		40	784	11,032	16,998	21,186
Public employee retirement.....	103	136	508	1,620	2,780	3,886
Unemployment insurance (including railroad) <sup>1</sup> .....	2	505	2,121	2,708	2,502	2,079
Railroad retirement.....		117	306	936	1,128	1,272
Workmen's compensation and temporary disability.....	6	9	51	123	112	109
Veterans' pensions, compensation, and life insurance.....	599	520	2,568	3,897	4,603	5,113
Public assistance (ex-medical).....		280	1,097	1,853	2,630	3,143
<b>D. Other services and aid</b> .....	<b>2,433</b>	<b>2,067</b>	<b>742</b>	<b>1,000</b>	<b>1,840</b>	<b>2,493</b>
Work programs, emergency aid, surplus food.....	2,374	1,963	6	59	304	441
Public housing, etc.....	13	4	14	144	238	285
Welfare and other services for veterans.....	38	24	379	107	133	129
Employment services and administration of unemployment insurance.....	7	67	190	337	494	573
Office of Economic Opportunity not elsewhere classified.....					52	464
Other welfare services.....	1	9	153	353	619	601
<b>Total</b> <sup>2</sup> .....	<b>3,209</b>	<b>3,929</b>	<b>12,403</b>	<b>27,313</b>	<b>40,184</b>	<b>56,104</b>

Source: Ida C. Merriam, "Social Welfare Expenditures, 1929-67," *Social Security Bulletin*, December 1967, pp. 3-16. Unrevised data for 1929-66 were printed in *Federal Programs for the Development of Human Resources* by Joint Economic Committee, 89th Cong., 2d sess., vol. 1, pp. 11-16.

NOTE.—Totals have been derived from rounded figures and may deviate slightly from aggregates in basic source tables.

<sup>1</sup> Less than \$50,000,000.

<sup>2</sup> Includes expenditures under the Federal-State unemployment insurance system which are included in Federal budget but in source materials are listed under State-local expenditures.

It should be noted that the above sketch based on the HEW data does not represent a comprehensive picture because some programs which contribute to training, health, and particularly to environmental development are not included.

#### THE RELATIVE ROLE OF FEDERAL PROGRAMS

Table II succinctly presents results of Federal policies in the allocation of resources to three major program sectors: education and training, health, and cash benefits. The fourth area of "other social welfare" expenditures is omitted because it is a less clearly defined area. Many "environmental" programs are also omitted, and are even

less well defined. These omitted programs deserve intensive subsequent analysis.

TABLE II.—*The relation of Federal expenditures for education, health, and cash benefit programs to total national outlays, fiscal years 1935-67*

[Selected years; units as indicated]

Category and Item	1935	1940	1950	1960	1965	1967
<b>A. Education and training:</b>						
1. Expenditures (millions of dollars):						
(a) Total, public and private <sup>1</sup> .....	2,455	3,160	10,930	21,752	34,253	44,442
(b) Public <sup>1</sup> .....	2,009	2,563	9,382	18,082	28,382	37,059
(c) Federal <sup>2</sup> .....	53	77	2,864	1,323	2,777	6,659
2. Expenditures as percent of GNP:						
(a) Total, public and private.....	3.6	3.3	4.1	4.4	5.2	5.8
(b) Public.....	2.9	2.7	3.6	3.6	4.3	4.9
(c) Federal.....	.1	.1	1.1	.3	.4	.9
3. Per capita expenditures (dollars):						
(a) Total, public and private.....	19	24	72	119	175	224
(b) Public.....	16	19	62	99	145	187
(c) Federal.....	.42	1	19	7	14	34
4. Federal education expenditures as percent of—						
(a) Total public and private expenditures for education.....	2.2	2.4	26.2	6.1	8.1	15.0
(b) Public expenditures for education.....	2.6	3.0	30.5	7.3	9.8	18.0
(c) Total Federal cash payments to public.....	.8	.8	6.6	1.4	2.2	4.8
<b>B. Health and medical care:</b>						
1. Expenditures (millions of dollars):						
(a) Total, public and private <sup>4</sup> .....	3,123	3,805	12,130	26,391	39,990	47,267
(b) Public <sup>4</sup> .....	843	782	3,065	6,395	9,718	16,167
(c) Federal <sup>5</sup> .....	104	179	1,362	2,918	4,812	10,164
2. Expenditures as percent of GNP:						
(a) Total, public and private.....	4.5	4.0	4.6	5.3	6.1	6.2
(b) Public.....	.8	.8	1.2	1.3	1.5	2.1
(c) Federal.....	.2	.2	.5	.6	.7	1.3
3. Per capita expenditures (dollars):						
(a) Total, public and private.....	25	29	80	145	204	239
(b) Public.....	4	6	20	35	50	82
(c) Federal.....	1	1	9	16	25	51
4. Federal health expenditures as percent of—						
(a) Total public and private expenditures for health.....	3.3	4.7	11.2	11.1	12.0	21.5
(b) Public expenditures for health.....	19.0	22.9	44.4	45.6	49.5	62.9
(c) Total Federal cash payments to public.....	1.7	1.9	3.2	3.1	3.8	6.5
<b>C. Cash benefit payments:</b>						
1. Expenditures (millions of dollars):						
(a) Total public and private <sup>6</sup> .....	1,628	3,008	10,112	28,718	40,442	48,691
(b) Public <sup>6</sup> .....	1,428	2,608	9,147	25,173	34,777	41,556
(c) Federal <sup>7</sup> .....	620	1,607	7,435	22,073	30,753	3,788
2. Expenditures as percent of GNP:						
(a) Total, public and private.....	2.4	3.2	3.8	5.8	6.2	6.4
(b) Public.....	2.1	2.7	3.5	5.1	5.3	5.4
(c) Federal.....	.9	1.7	2.8	4.5	4.7	4.8
3. Per capita expenditures (dollars):						
(a) Total, public and private.....	13	23	67	158	207	246
(b) Public.....	11	20	61	138	177	210
(c) Federal.....	5	12	49	121	157	186
4. Federal cash benefits as percent of—						
(a) Total public and private cash benefits.....	38.1	53.4	73.5	76.9	76.0	75.0
(b) Public outlays for cash benefits.....	43.4	61.6	81.3	87.7	88.4	88.5
(c) Total Federal cash payments to public.....	9.8	16.7	17.2	23.4	24.0	23.7

See footnotes at end of table.

TABLE II.—*The relation of Federal expenditures for education, health, and cash benefit programs to total national outlays, fiscal years 1935-67—Continued*

[Selected years; units as indicated]

Category and item	1935	1940	1950	1960	1965	1967
D. Total: Education, health, and cash benefits: <sup>6</sup>						
1. Expenditures (millions of dollars):						
(a) Total, public and private.....	7,206	9,973	33,172	76,861	114,685	140,400
(b) Public.....	3,980	5,953	21,594	49,650	72,877	94,782
(c) Federal.....	777	1,863	11,661	26,314	33,342	53,611
2. Expenditures as percent of GNP:						
(a) Total, public and private.....	10.5	10.5	12.6	15.5	17.5	18.4
(b) Public.....	5.8	6.3	8.2	10.0	11.1	12.4
(c) Federal.....	1.1	2.0	4.4	5.3	5.8	7.0
3. Per capita expenditures (dollars):						
(a) Total, public and private.....	57	76	220	422	586	709
(b) Public.....	31	45	143	272	372	478
(c) Federal.....	6	14	77	144	196	271
4. Federal outlays for the 3 areas as percent of:						
(a) Total public and private outlays in 3 areas.....	10.8	18.8	32.5	34.2	33.4	38.2
(b) Public outlays in 3 areas.....	19.5	31.3	54.0	53.0	52.6	54.3
(c) Total Federal cash payments to public.....	12.3	19.4	27.1	27.9	30.0	34.5
Addenda:						
GNP (billions of current dollars) <sup>7</sup> .....	68.7	95.1	263.4	495.6	655.5	763.1
Total U.S. population (in millions, Jan. 1) <sup>8</sup> .....	126.8	131.7	151.0	182.2	195.8	198.1
Total Federal cash payments to public (billions of dollars) <sup>9</sup> .....	6.3	9.6	43.1	94.3	127.9	155.3
Consumer price index (1934-35=100) <sup>10</sup> .....	100.0	103.0	176.7	216.7	230.9	243.0
Per capita expenditures for 3 areas in 1934-35 (dollars):						
Total, public and private.....	57	73	124	195	254	292
Public.....	31	44	81	126	161	197
Federal.....	6	6	44	66	85	119

<sup>1</sup> Ida Merriam, "Social Welfare Expenditures, 1929-67," *Social Security Bulletin*, December 1967, pp. 5-16 for 1935 to 1967, except that figures for private education for 1935 and 1940 are from *Health, Education, and Welfare Trends*, 1965 ed., pp. 5-61. Amounts have been adjusted to include MDTA, NYC, Job Corps, and vocational rehabilitation training.

<sup>2</sup> From table I above.

<sup>3</sup> Overstate the Federal share because a substantial portion of VA benefits went directly to veterans and also many were trained in courses outside regular educational institutions. The same is true of VA educational outlays in other years.

<sup>4</sup> Ida Merriam, *op cit.*, p. 15.

<sup>5</sup> Data from Ida Merriam article, p. 16 adjusted to exclude MDTA training allowances. Estimated for 1935 and 1940 on basis of informal information plus rough estimates of private pensions.

<sup>6</sup> Based on data in sections above.

<sup>7</sup> Ida Merriam, *Social Welfare Expenditures, 1929-67, op cit.*, p. 11.

<sup>8</sup> Figures for 1935-60 are averages of July 1 figures from 1966 *Statistical Abstract*; figures for 1965 and 1967 are from *Survey of Current Business*.

<sup>9</sup> Figures for 1935 to 1965 are from 1967 *Supplement to Economic Indicators*, p. 130. 1967 figure is from December 1967 *Economic Indicators*, p. 36.

<sup>10</sup> Figures for 1935 to 1965 are averages to approximate July 1 from 1967 *Supplement to Economic Indicators*, p. 95. 1967 figure is from December 1967 *Economic Indicators*, p. 26. Figures are converted so 1934-35 is equal to 100.

Of the three sectors covered, "education and training" is most commonly regarded as constituting "human investment." "Health" is perhaps next in order as "investment," although present Federal programs have a heavy element directed to aged persons who are clearly outside the actual or potential future labor force. "Cash benefits" can be taken as principally a "consumption" item, low in relative investment effect.

Some striking points emerge from table II relating to Federal involvement in the three areas of education and training, health, and cash income maintenance:

Federal expenditures for these three sectors have risen in 32 years from about one-eighth of the Federal cash payments budget to more than one-third. There has been a sixfold increase in Federal outlays for these three categories as a percentage of GNP, to 7 percent.

The relative Federal involvement versus State-local public and private provisions has increased in all three sectors from 1935 to 1967. For the three sectors as a group, Federal expenditures have more than tripled in relation to public and private outlays, rising from 11 to 38 percent. The Federal share of *public* outlays has also nearly tripled, increasing from 20 to 54 percent. However, although the trend in the Federal share is up in all three sectors, the relative Federal involvement differs rather sharply in the three areas:

It is the *least* in education and training—in 1967 constituting 15 percent of public-private funds and 18 percent of public funds for education.

It has sharply *sputtered* in health—in 1967 Federal funds were 22 percent of public-private funds and 63 percent of public funds for health.

It represents a *dominant* role in cash transfer benefits. The substantial relative Federal role in 1935 has been enlarged until in 1967 the Federal Government provided three-fourths of public benefits plus private pensions, nearly nine-tenths of public benefits.<sup>6</sup>

The total national public-private outlay, perhaps surprisingly, is of the same relative magnitude—in the \$45 billion range—in each of the three sectors; but the Federal share varies sharply. The Federal Government's expenditures for cash benefits in 1967 were \$36.8 billion, but:

For education and training—the prime human investment activities—it spent less than one-fifth as much as for cash transfers.

For health, outlays—including the large medicare amount for the aged—were slightly more than one-fourth the size of the cash benefit payments.

For education and training plus health, Federal Government outlays were only 46 percent of the amount of the Federal cash benefit outlays.

The American people have demonstrated a high preference for education/health/cash benefit programs. In the period 1940 to 1967, *per capita* public and private expenditures in 1934-35 prices for these purposes rose about fourfold; total public outlays increased 4½ times; but *Federal* outlays rose nearly twenty-

<sup>6</sup> The reader should note that the cash benefits in these tables do not include private philanthropy or life insurance and annuities bought outside of pension plans. Inclusion of these would temper, but probably not reverse these findings. In 1935, also, various public works and emergency programs filled part of the role now played by formalized cash benefits programs.

fold. In this same time span, real per capita GNP rose about 2¼ times.

#### RECENT TRENDS IN FEDERAL EDUCATION/HEALTH/CASH BENEFIT PROGRAMS

At the center of American social philosophy is the concept of the dignity and the supreme worth of the individual. The practical test of this philosophy is whether an individual receives a genuine opportunity to develop his potentialities to their fullest and to secure employment commensurate with his abilities.

The Federal Government in recent years has shown an increasing concern with creating effective opportunities for people to help themselves. This concern has been particularly evidenced in the rapid expansion of education and health programs. The principle behind these key programs is that they develop human resources—help give people the opportunity to help themselves.

Education is the key instrument in the philosophy of self-help. There is perhaps no greater guarantee that our society can offer an individual than the assured opportunity to secure a good education. In the United States a good education for those otherwise able to work is the best social security there is.

With the development of social programs, especially in the areas of education and health, the Budget of the United States has included a number of special analyses which help the student analyst of public policies get a better feel for the role the Federal Government is playing. In recent years, these have been published in a special volume entitled *Special Analyses*, Budget of the United States.

The following sections are based on data from these analyses as well as other tabulations from the budget document on cash benefit programs, on aid for the aged, and assistance for children and youth. While the figures are not reconciled with those appearing in the HEW tabulations on social welfare programs and the concepts are not always uniform, because some tabulations are on a new obligational authority or obligation basis while others are on an expenditure basis, it is believed that these technical differences are not so large as to obscure the main substantive thrust of the analysis in the subsequent sections. Utilization of data from the Federal Budget does have the advantage of enabling the analyst to check back specifically on the details of the various programs. In using the data for 1968, however, it should be recognized that Congressional and other cutbacks may have reduced the amounts recommended by the President in his 1968 Budget, which is the source.

#### EDUCATION AND TRAINING PROGRAMS

The 1967 and 1968 *Special Analyses* have contained a comprehensive tabulation of all the Federal education and training programs. Tables III-A and III-B summarize information from these special analyses.

Table III-A shows the categories in which Federal funds for education, training, and related programs have been distributed. For exam-



ple, while higher education took a substantial share of funds in 1965, assistance for preschool, elementary, and secondary education has increased rapidly between fiscal 1965 and 1968.

TABLE III-A.—Federal funds for education, training, and related programs, 1965–68, fiscal years, by category

[In billions of dollars]

Category	1965 actual	1966 actual	1967 estimate	1968 estimate
Preschool, elementary, and secondary education.....	1.0	2.4	2.8	3.2
Higher education.....	3.1	3.7	4.2	4.6
Facilities.....	(1.0)	(1.2)	(1.2)	(1.3)
Support of undergraduate students.....	(.4)	(.6)	(.9)	(1.1)
Support of graduate and professional training.....	(.4)	(.6)	(.7)	(.7)
Research, except educational research.....	(1.1)	(1.3)	(1.4)	(1.5)
Other.....	(.1)	(.1)	(.1)	(.1)
Vocational education, work-training and other adult or continuing education.....	1.1	1.3	1.5	1.8
Educational research, curriculum development, etc.....	.1	.1	.1	.2
Training of Federal Government personnel:				
Military personnel.....	1.4	1.4	1.8	1.6
Civilian personnel.....	.1	.1	.1	.1
International educational activities.....	.3	.3	.3	.3
All other programs.....	.2	.3	.4	.7
Total, funds provided <sup>1</sup> .....	7.2	9.6	<sup>1</sup> 11.2	<sup>1</sup> 12.4
Total, expenditures.....	5.2	7.3	<sup>2</sup> 10.0	<sup>2</sup> 11.0

Sources: 1965, *Special Analyses*, Budget of the United States, fiscal year 1967, "Federal Education, Training, and Related Programs," p. 89; 1966–68, *Special Analyses*, Budget of the United States, fiscal year 1968 "Federal Education, Training, and Related Programs," p. 95.

NOTE.—Figures may not add to totals because of rounding. Amounts in parentheses are components of a larger sum.

<sup>1</sup> Figures are for "new obligational authority," excluding reductions because of estimated receipts from participation sales of about \$100,000,000 each in 1967 and 1968. Data for prior fiscal years on "obligations" (reasonably comparable with "new obligational authority") was given on p. 89 of the 1968 *Special Analyses* as follows: 1956, \$2,600,000,000; 1960, \$3,100,000,000; 1961, \$3,300,000,000; 1962, \$3,800,000,000; 1963, \$4,200,000,000; 1964, \$4,700,000,000.

<sup>2</sup> Amounts exclude reductions because of estimated receipts from participation sales of about \$700,000,000 in 1967 and \$1,800,000,000 in 1968.

Table III-B indicates that total Federal funds for education and training increased fourfold between 1960 and 1968. It also indicates that agencies other than the Office of Education in 1968 will provide two-thirds of the Federal funds for education, training, and related programs.

In fiscal 1968 it was likely that some 11 million schoolchildren would benefit from the preschool, elementary and secondary education aid programs—roughly 1 out of every 5 schoolchildren. Likewise, more than 1½ million undergraduate students were programed to receive assistance—roughly one out of every three in college full time. Increasing emphasis in the Federal education programs to assistance for the poor has added greatly to the significance of these figures.

TABLE III-B.—Federal funds for education, training, and related programs, 1960-68, selected fiscal years, by agency

[In billions of dollars]

Agency	1960 actual	1963 actual	1964 actual	1965 actual	1966 actual	1967 estimate	1968 estimate
Office of Education (HEW).....	0.5	0.7	0.7	1.5	3.3	4.0	4.2
Defense Department.....	.8	1.0	1.2	1.9	2.0	2.4	2.2
All other.....	1.8	2.5	2.8	3.8	4.3	4.8	6.0
Public Health Service and other HEW.....	(1)	(1)	(1)	1.0	1.1	1.4	1.6
Office of Economic Opportu- nity.....	(1)	(1)	(1)	.5	.7	.9	1.3
National Science Foundation..	(1)	(1)	(1)	.4	.5	.5	.5
Labor Department.....	(1)	(1)	(1)	.4	.4	.4	.4
Veterans' Administration.....	(1)	(1)	(1)	.1	.1	.4	.5
Housing and Urban Develop- ment.....	(1)	(1)	(1)	.3	.3	(2)	.3
Other.....	(1)	(1)	(1)	1.1	1.2	1.2	1.4
Total funds provided <sup>1</sup> .....	3.1	4.2	4.7	7.2	9.6	<sup>3</sup> 11.2	<sup>3</sup> 12.4
Total expenditures.....	(4)	(4)	(4)	5.2	7.3	<sup>4</sup> 10.0	<sup>5</sup> 11.0

Source: See notes to table III-A. Figures for 1960-64 are rough adjustments of amounts given in 1968 *Special Analyses*, p. 89.

NOTES.—Figures may not add to totals because of rounding.

<sup>1</sup> Not readily available.

<sup>2</sup> Less than \$50,000,000.

<sup>3</sup> Figures are "New obligational authority" for 1965 to 1968; "obligations" for 1963 and 1964 (but reasonably comparable). Amounts exclude estimated receipts from participation sales of about \$100,000,000 each in 1967 and 1968.

<sup>4</sup> Not available.

<sup>5</sup> Amounts exclude estimated receipts from participation sales of about \$700,000,000 in 1967 and \$1,800,000,000 in 1968.

#### HEALTH PROGRAMS

Health, likewise, is a critical investment in people, for sick people tend to sink into poverty and worse. Except for providing health services to groups such as military personnel, merchant seamen, and disabled veterans, the Federal role in supporting health services until the last half decade has been essentially dormant.

Enactment of medicare and medicaid by the 89th Congress marked a distinct change in Federal policy. These programs have played a major part in increasing the Federal contribution to the support of medical and health-related activities. Beginning with the 1965 budget, a comprehensive analysis has been published tabulating all Federal health activities. Tables IV-A and IV-B present a summary of data from these analyses, classified both by the categories to which funds were devoted and by the agencies which provided the funds.

TABLE IV-A.—Federal expenditures for medical and health-related activities, fiscal years, 1963-68, by category

[In billions of dollars]

Category	1963 actual	1964 actual	1965 actual	1966 actual	1967 esti- mate	1968 esti- mate
Hospital and medical care in Federal facilities.....	1.9	2.0	2.0	2.2	2.5	2.6
Federal grants and payments for hospital and health care in non-Federal facilities.....	.9	.9	.9	1.3	5.3	6.2
Medical research, total.....	.9	1.1	1.0	1.2	1.4	1.5
(a) Conduct of research.....	(.8)	(1.0)	(1.0)	(1.1)	(1.3)	(1.4)
(b) Research facilities.....	(.1)	(.1)	(.1)	(.1)	(.1)	(.1)
Training, including training for research.....	.3	.3	.3	.4	.6	.8
Preventive and community services.....	.3	.4	.4	.4	.6	.8
Construction of hospitals and health facilities.....	.4	.4	.4	.4	.4	.6
Total, expenditures from administrative budget and trust accounts <sup>1</sup> .....	4.7	5.1	5.2	5.9	10.9	12.4

Sources: 1963, *The Budget of the United States Government, 1965*, "Federal Health Programs," p. 400; 1964 *The Budget of the United States Government, 1966*, "Federal Health Programs," p. 436; 1965, *Special Analyses*, Budget of the United States, fiscal year 1967, "Federal Health Programs," p. 108; 1966-68, *Special Analyses*, Budget of the United States, fiscal year 1968, "Federal Health Programs," p. 115.

NOTE. Figures may not add to totals because of rounding. Amounts in parentheses are components of a larger sum.

<sup>1</sup> Tabulated data on this comprehensive basis are not available from budget documents for years prior to fiscal 1963. However, S. Rept. 142, 87th Cong., 1st sess., by the Subcommittee on Reorganization and International Organizations of the Committee on Government Operations entitled *Coordination of Federal Agencies Programs in Biomedical Research and in Other Scientific Areas*, pp. 111-112 would yield the following reasonably comparable totals largely on an "obligation" basis: Fiscal year 1958 actual, \$3,000,000,000; 1959 actual \$3,300,000,000; 1960 actual or estimate \$3,500,000,000; 1961 estimate, \$4,500,000,000. These amounts have been adjusted to include trust funds as they are included in the budget analysis of "Federal Health Programs."

A striking point in table IV-A is a nearly sevenfold increase in Federal funds for hospital and health care in non-Federal facilities between fiscal 1963 and 1968. An interesting point from table IV-B is that the Public Health Service makes less than one-fifth of the health expenditures which are made by the Federal Government.

TABLE IV-B.—Federal expenditures for medical and health-related activities, 1960-68, selected fiscal years, by agency

[In billions of dollars]

Agency	1960 actual	1963 actual	1964 actual	1965 actual	1966 actual	1967 estimate	1968 estimate
Health, Education, and Welfare:							
Public Health Service.....	0.8	1.2	1.5	1.4	1.5	2.0	2.3
Welfare Administration.....		.7	.7	.6	.9	1.2	1.4
Social Security Administration <sup>1</sup> .....	.4				.1	3.5	4.1
Other (Vocational Rehabilitation Administration).....		.1	.1	.2	.1	.2	.3
Subtotal, HEW.....	1.3	2.0	2.3	2.2	2.6	6.9	8.1
Defense Department.....	.9	1.0	1.0	1.1	1.2	1.5	1.6
Veterans' Administration.....	3.0	1.1	1.2	1.3	1.3	1.4	1.5
Agency for International Develop- ment.....	.1	.1	.1	.1	.1	.2	.2
Atomic Energy Commission.....	.1	.1	.1	.1	.1	.1	.1
Office of Economic Opportunity.....				(2)	(2)	.1	.1
All other agencies.....	.2	.4	.4	.4	.6	.7	.8
Total.....	3.5	4.7	5.1	5.2	5.9	10.9	12.4

Source: Figures for 1963-68 are from Budget Analyses entitled "Federal Health Programs." See table IV-A for specific documents. See notes to table IV-A for source of 1960 data. Figures for 1960 are obligation rather than expenditures. Figures may not add because of rounding.

NOTE.—Figures include both general budget and trust funds.

<sup>1</sup> Mostly trust fund expenditures for medicare. General budget contributions which are interfund transfers are netted out.

<sup>2</sup> Less than \$50,000,000.

These tabulations of education and training and of health activities by the Federal Government are interesting not only because of the significant progress which the Federal Government has made in recent years in expanding activities which contribute to human resource development. They show, too, that the administrative responsibility for major programs is shared by a number of agencies in each sector, thus making it difficult to achieve coordination in the allocation and administration of these resources.

#### CASH BENEFIT PROGRAMS

The Federal budget includes major amounts for cash benefit payments or income transfers to various groups of beneficiaries, principally financed from earmarked trust funds. Table V pulls together data on these for the major programs.

TABLE V.—Expenditures for major Federal cash benefit programs for individuals, 1960–68, selected fiscal years

[In billions of dollars]

Program	Agency	1960 actual	1963 actual	1965 actual	1966 actual	1967 esti- mate	1968 <sup>1</sup> esti- mate
OASI <sup>2</sup> .....	HEW.....	10.5	14.5	16.0	18.8	19.9	24.4
Disability insurance <sup>2</sup> .....	HEW.....	.6	1.3	1.5	1.9	2.0	2.4
Unemployment insurance <sup>2,3</sup> .....	Labor and RRB.	2.8	3.1	2.5	2.1	1.8	1.9
Railroad retirement <sup>2</sup> .....	RRB.....	.9	1.1	1.2	1.2	1.4	1.4
Public assistance.....	HEW.....	2.1	2.7	2.8	2.8	2.9	3.0
VA non-service-connected pensions.....	VA.....	1.3	1.7	1.9	1.9	1.9	2.0
VA service-connected compensation.....	VA.....	2.0	2.1	2.2	2.2	2.3	2.4
VA life insurance <sup>2</sup> .....	VA.....	.7	.8	.6	.6	.8	.6
Military retirement.....	DOD.....	.7	1.0	1.4	1.6	1.8	2.0
Civil service retirement <sup>2</sup> .....	CSC.....	.9	1.2	1.4	1.7	2.0	2.1
Total.....		22.5	29.5	31.5	34.8	36.8	42.2

Sources: Budgets of the United States for fiscal years 1962, 1965, 1967, and 1968.

NOTE.—Totals exclude transfers "in kind" from medicare, medicaid (1966-68), public housing, rent supplements, food stamps, school lunch, and food distribution programs. Medical care for aged is also excluded in 1960-65, but not other medical vendor payments. Medicare and medicaid are included in tables IV-A and IV-B on health programs. For OASDI and public assistance amounts include administrative expenses; for other programs not.

<sup>1</sup> Amounts include proposed legislation for OASDI and public assistance.

<sup>2</sup> Trust fund programs.

<sup>3</sup> Includes unemployment benefits from general budget for Federal civilian personnel and ex-servicemen.

From 1960 to 1968 these programs were projected to increase 88 percent, to a total of \$42.2 billion. During this period, OASDI, including proposed benefit increases largely enacted in 1967, was projected to increase by \$15.7 billion, or 141 percent. For 1968 it was estimated to constitute 63 percent of all estimated cash benefits expenditures.

#### TOTAL EDUCATION/HEALTH/CASH BENEFITS OUTLAYS

The totals from the preceding three sectors are presented in table VI. In the span of 8 years these three sectors were projected to increase by \$36.7 billion, or 128 percent.

Adjusting for overlaps, the combined increase in education/health sectors totaled \$17 billion annual rate compared to an increase of nearly \$20 billion annual rate in cash benefits. Despite the much more rapid relative growth of the education/health categories both these sets of programs started from a small base, and accordingly the resources

devoted to the cash benefits area have been much larger even though the relative growth rate has been smaller. Nevertheless, after taking account of the overlaps which fall in these two categories, the relative proportion of education/health funds in the total of Federal funds in the three sectors was projected to rise from about 21 percent in 1960 to 36 percent in 1968.

TABLE VI.—*Relative distribution of Federal funds in 3 major social welfare sectors, 1960-68, selected fiscal years*

	1960 actual	1963 actual	1966 actual	1967 estimate	1968 estimate
Funds (in billions of dollars)					
Education and training...	3.1	4.2	9.6	11.1	12.3
Health.....	3.5	4.7	5.9	10.9	12.4
Cash benefits.....	22.5	29.5	34.8	36.8	42.2
Deduct overlaps.....	.5	.7	1.0	1.4	1.6
Total.....	28.6	37.7	49.3	57.4	65.3
Percent increase since 1960					
Education and training.....		35	210	258	297
Health.....		34	68	211	254
Cash benefits.....		31	55	64	85
Total.....		32	72	101	128
Percent distribution					
Education and training...	10.8	11.1	19.5	19.3	18.8
Health.....	12.2	12.5	12.0	19.0	19.0
Cash benefits.....	78.7	78.2	70.6	64.1	64.6
Overlaps.....	-1.7	-1.9	-2.0	-2.4	-2.5
Total.....	100.0	100.0	100.0	100.0	100.0

Sources.—See tables III-B, IV-B, and V above. See notes also to table X below. Adjustments for overlaps are largely for education and training and research programs included in the first 2 categories.

NOTE.—Figures may not add because of rounding.

As is evident from table V and table VIII below, about three-fifths of all OASDI in 1968 was estimated to go to persons over age 65. Children and youth in the families of survivors were estimated to receive about \$2.6 billion in OASI benefits in 1968, as can be seen from table VII-A.

## A STRATEGY OF HUMAN RESOURCE DEVELOPMENT?

Education and health have long been highly regarded "consumption goods" in our society, desirable both for the individual and for the quality of the society. The recent rediscovery by economists that education (and health, too) is an important and perhaps even major element in productivity and economic growth and the source of a good rate of return from expenditures has given added weight to the economic significance of human resource development programs.<sup>7</sup>

<sup>7</sup>For an excellent summary of some of the current findings regarding the economic returns from education, see Frederick Harbison and Charles A. Myers, *Education, Manpower, and Economic Growth: Strategies of Human Resource Development*, McGraw-Hill Book Co., New York (1964), ch. 1.

An awakened conception of the key role of human resource development calls for careful consideration regarding how the Nation allocates its resources. Does the country have a strategy for improving the education and skills and the physical health of its children and its adults? Is "investment" in human resources given weight commensurate with its economic and social importance in the total economy, both in relation to investment in physical capital, and in relation to consumption, private and public? In the human resource area is there balance among the various sectors such as health, education, manpower training?

In the United States the Federal Government has come relatively recently to significant involvement in program areas which contribute directly to investment in human resources. In education, significant involvement has begun only in the last half of this decade. The same is true in health and in manpower training.

Professor Harbison and others have suggested the importance of a strategy of human resource development. Do we have a strategy for the development of human resources, particularly for Federal programs?

There are some hopeful signs but in the large it would be fair to say that there is no articulated, consistent strategy of human resource development. Decisions relating to education, manpower, and health programs, as well as to the environmental programs which underpin direct investment in human resources, are decentralized and are made in many different local, State, private, as well as Federal institutions.

At the Federal level the inauguration of the planning, programing, and budgeting system (PPB) on a Government-wide basis since 1965 has given a new and sharper focus to techniques for allocation of resources. Among the beneficial, forward steps:

The focus has shifted to emphasis on program *outputs* rather than just on costs or inputs.

Agencies have developed improved *program structures* for the presentation and analysis of their activities.

*Cost effectiveness analysis* has been stepped up, and most agencies have designated special staffs for this purpose.\*

Development of the Federal program has shifted to a *longer time* frame, typically 5 years.

Explicit presentation and consideration of *alternatives* has been built more solidly into the program development and budgeting system.

New tools are being developed. Instant PPB, however, is not possible, nor was it so conceived. Institution of scientific planning and programing involves a major change in the institutional methods and in the outlook of administrators and requires new data and techniques.

Improved analytical techniques are a major part of PPB, and analytical efforts must be multiplied, particularly in the area of cost-effectiveness analysis. PPB analysis necessitates a major strength-

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\*The terms *cost effectiveness* or *cost effective* in this paper are assumed to cover the whole gamut of costs and of benefits. They are not limited to economic or solely quantifiable factors, but include broader social elements, including those which may not be subject to having a precise figure placed on them. It is assumed that all relevant factors will be explicitly considered and that quantitative methods will be used if reliable.

ening of basic data on the population or target universes served by various programs and of analysis of the effects of Federal assistance or services. Procurement of data often depends on the structures of State and/or local governments and extends into the nongovernment sector. Cost-effectiveness analysis is most advanced in the military and water resources areas. In the latter field it has been applied for many years in judging the economic viability of projects, but even so it is far from perfect.

Much of the present PPB cost-effectiveness analysis is concentrated on particular programs, projects, or activities. On the question of tradeoffs among the major human resource sectors, PPB analysis is just being begun. To help fill this gap the Bureau of the Budget has created a small Resources Planning Staff to work on problems of inter-program and intersector priorities and longer range resource allocations.

PPB analysis in the human resources development area has been hopeful, but it is far from achieving its potentials. Cost-effectiveness calculations on rehabilitation, for example, have confirmed the high utility of these efforts. Pilot studies in the manpower area on MDTA, on-the-job, and institutional training programs, and on Job Corps programs, have blocked out potentially fruitful methodologies. Numerous HEW studies in the health area have been quite promising, but major areas of health economics still challenge fruitful exploration by analysts. For example, analysis and development of measures to grapple effectively with the underlying factors which are responsible for the escalation of health service, hospital, and drug costs represents a multibillion dollar question of interest to all Americans.

Although the reawakening of interest in human resource investment occurred in the area of education, the cost-effectiveness studies in this field are still at the frontier. A number of essentially methodological studies on particular educational projects have been completed or are underway, but the techniques of evaluating large programs such as those under the Elementary and Secondary Education Act of 1965 are still being evolved. The important research by *Project Talent*, the pathbreaking survey on *Equality of Educational Opportunity*, and the studies by the U.S. Commission on Civil Rights on *Racial Isolation in the Public Schools* all provide valuable indications of some of the factors that play on educational effectiveness. However, the nexus between specific inputs of educational resources, particularly through federally financed programs, and educational achievement still mostly is to be explored.

On crosscutting program sectors administered by several Federal agencies, a hopeful beginning is being made in the manpower field, where substantial progress has been made in the last 2 years in developing programing mechanisms embracing Federal, State and local agencies, e.g., the cooperative area manpower planning system (CAMPS) and the concentrated employment program (CEP). The President's Committee on Manpower earlier served as a focus for initiating action toward concerted planning of manpower programs within the executive branch.

Hopeful signs also are present in the education and health areas. But major blocks of these activities are dispersed in various Federal agencies or bureaus, and the longstanding traditions against Federal

“control” of education and of medicine present a significant barrier to energetic efforts toward positive programing. And, it should be pointed out, despite the importance of facts and sound analysis and program evaluation, the resources devoted to such factfinding are small. Economics of education and economics of health are at best only meagerly supported in the United States.

If we are to evolve a strategy for investment in human resources in the United States, and particularly in the Federal Government, what direction should it take? As a partial contribution toward better planning and programing, the following sections raise some of the questions which might be considered and illustrate a few of them by displaying some types of data which might help illuminate intersector allocation of resources.

In the preparation of the Federal budget no less than in the preparation of State and local budgets, the scarcity of resources or funds is an ever present fact. For particular programs alternative courses of action have to be considered. Among major sectors implicit, if not explicit, tradeoffs must be made in allocating resources. Such tradeoffs are made unconsciously or by default if they are not explicitly considered.

Some may maintain that it is not possible to equate or compare benefits of education versus health versus social security programs. But in the Federal budget, as well as in the “Nation’s budget,” a dollar spent for one purpose is just as big as a dollar spent for another purpose—even though the benefits to the society may not be equal at the margin and, indeed, may be widely disparate.

Some way to compare interprogram or intersector benefits in relation to costs is necessary even though it may be a primitive approach. One possible approach might be to try with respect to each sector or major program to answer some variants of the newspaperman’s questions: Why? Who? Where? How or what? When and how much?

#### WHY A FEDERAL PROGRAM?

This is the classic question of a budget director. The corollary question is how Federal action in a particular sector or on a particular program contributes to the solution of a national problem. Is the concern a primary one or is it of secondary importance? Some may classify maintenance of law and order, protection of public health, the elimination of poverty, or the assurance of civil rights high in such a hierarchy. Is the proposed program single purpose or is it likely to contribute to the solution of a syndrome of fundamental social ills which are the root causes of multiple national problems? Some might deem education such a basic, multipurpose remedy.

The costs of inaction as well as of positive action must be considered. What will be the social costs or consequences of inaction? Why will private action or State local public action not suffice? What benefits can be expected if action is taken, how large will the return be, and for how long?

Turning to existing programs, why is it that some are much more advanced and of larger scope than others? Is it because they are, in some real sense, more important to the national welfare? Or is it because programs once started to meet a felt need have a tendency to



grow, to "live a life of their own," so to speak? Can low-yield programs be held in check or reduced to make room for more essential or high-yield programs?

In the Federal budget, the "functional" classification has for two decades provided an indication of the broad purposes for which Federal funds are used. (See appendix B for an excerpt of relevant program categories). PPB has now sharpened this focus by highlighting the importance of looking at programs and activities in terms of their end purposes and outputs as well as their costs.

#### WHO SHOULD BE AIDED?

The analysis of Federal programs by recipients is frequently not systematically considered at present. However, very important decisions in the human resource development area can revolve around the question whether resources are allocated to:

The aged versus the youth.

The farm or rural population versus the urban or central city population.

The Negroes versus the whites.

The poor versus the nonpoor.

Such tradeoffs are not systematically and fully considered in large part because there are numerous programs which affect particular groups and these programs are administered by different agencies, largely organized along functional lines. On the other hand, single-clientele agencies often become one-sided proponents of their particular group and tend to be uninterested in critical analysis.

Many programs, once started in a given direction for a particular group, tend to go their own ways and to gain momentum in their original direction, making it hard to redirect resources to new areas. This is especially true if the programs have an independent source of earmarked financing as is true of various of the trust fund programs, such as social security (OASDI) or highway aid.

Some examples of how the analysis of recipients may bear on public policy questions are perhaps suggested by the following rough analyses:

*The young and the old.*—Table VII-A presents data from a newly issued report by the Interdepartmental Committee on Children and Youth on Federal expenditures for programs assisting children and youth under age 21. Identifiable outlays in the Federal Budget for this group increased from \$4 billion in fiscal year 1960 to about \$11 billion in 1967, and a further increase was projected in the 1968 budget. In 1960 cash benefits were the largest category of expenditures for this group, but although they more than doubled in the next 7 years they are no longer the dominant category. Education and training have increased more than fourfold during this period and in 1967 became the

largest category. Health outlays have increased at a rapid rate, but still barely exceeded \$1 billion in 1967. Other categories of outlays were even smaller.

TABLE VII-A.—Federal expenditures for programs assisting children and youth, selected fiscal years, 1960-68, by category

[In billions of dollars]

Category	1960 actual	1963 actual	1966 actual	1967 estimate	1968 estimate
Education and training.....	1.3	1.8	3.9	5.5	6.1
Health.....	.4	.6	.8	1.1	1.4
Cash benefits.....	1.6	2.3	3.2	3.4	3.8
Subtotal.....	3.3	4.7	7.9	10.0	11.3
Other:					
Food and nutrition.....	.3	.4	.4	.5	.5
Social and rehabilitation services.....	.1	.1	.2	.3	.3
Employment services and labor standards.....	(1)	(1)	(1)	.1	.1
All other.....	.2	.3	.2	.2	.3
Total.....	4.0	5.4	8.9	11.0	12.5

Source: From recent special study by Interdepartmental Committee on Children and Youth entitled "Federal Programs Assisting Children and Youth," December, 1967.

NOTE.—Includes all identifiable programs, including military training of civilian value and military health services, assisting individuals under age 21. Figures may not add to totals because of rounding.

<sup>1</sup> Less than \$50,000,000.

Table VII-B presents the same data by agency. It shows the dominant role of HEW in aiding children and youth.

TABLE VII-B.—Federal expenditures for programs assisting children and youth, 1960-68, selected fiscal years, by agency

[In billions of dollars]

Agency	1960 actual	1963 actual	1966 actual	1967 estimate	1968 estimate
Health, Education and Welfare:					
Office of Education.....	0.4	0.6	1.8	2.7	3.2
Social Security Administration.....	1.0	1.4	2.2	2.2	2.6
Welfare Administration.....	.6	.8	1.1	1.4	1.6
Public Health Service.....	.1	.2	.3	.3	.3
Other.....	(1)	(1)	.1	.1	.1
Subtotal, HEW.....	2.1	3.0	5.5	6.7	7.9
Defense Department.....	.8	1.0	1.1	1.5	1.4
Office of Economic Opportunity.....	---	---	.6	1.0	1.2
Agriculture Department.....	.5	.5	.5	.5	.7
Housing and Urban Development.....	.3	.4	.4	.5	.5
Veterans' Administration.....	.2	.2	.3	.3	.3
All other.....	.2	.3	.4	.5	.5
Total.....	4.0	5.4	8.9	11.0	12.5

Source.—See table VII-A.

NOTE.—Detail may not add to totals because of rounding.

<sup>1</sup> Less than \$50,000,000.

Table VIII presents comparable figures on all Federal expenditures for programs assisting persons over age 65. These have been compiled for a number of years by the President's Council on Aging and by the Bureau of the Budget. Outlays for the aged doubled, from about \$13 billion in fiscal 1960 to nearly \$26 billion in 1967. The bulk of these expenditures are cash benefit payments, although, with the enactment of medicare, health programs have assumed a substantial size, estimated at \$5 billion in 1967. For 1968, further increases in cash benefits were proposed and most were enacted by the Congress.

TABLE VIII.—Federal expenditures for programs assisting the aged, 1960-68, selected fiscal years, by category

[In billions of dollars]

Category	1950 actual	1960 actual	1963 actual	1966 actual	1967 estimate	1968 estimate
Health and medical care programs.....	10.5	10.6	0.9	1.4	5.0	5.6)
Medicare programs.....				(.1)	(3.5)	(4.2)
Other.....	(.5)	(.6)	(.9)	(1.3)	(1.5)	(1.4)
Cash benefits payments.....	2.1	12.6	16.5	19.7	20.8	23.6
OASDI.....	(2)	(2)	(2)	(14.1)	(14.9)	(15.7)
Other.....	(2)	(2)	(2)	(5.6)	(5.9)	(7.9)
Other programs, principally housing aid <sup>1</sup> .....	(4)	1.1	.1	.1	.2	.1
Total, Federal expenditures.....	2.6	13.3	17.4	21.3	25.9	29.4
Addendum: Additional special tax benefits for the elderly.....	.3	.7	.8	-----	*2.3	-----

Sources: 1950 and 1960 data from "Programs for Older People," Report to the President, 1960, by the Federal Council on Aging, pp. 68-71; 1963 figures from "Action for Older Americans," 1964 Annual Report of the President's Council on Aging, pp. 68-69; 1966, 1967, and 1968 data are from underlying Bureau of the Budget tabulations from which summary figures were published in the Budget of the U.S. Government, 1968, p. 136.

NOTE.—Figures may not add to totals because of rounding.

<sup>1</sup> Includes some assistance for older people under age 65.

<sup>2</sup> Not available.

<sup>3</sup> Amounts for education and training are negligible and have not been separately identified.

<sup>4</sup> Less than \$50,000,000.

<sup>5</sup> Estimate for calendar 1967. Includes value of exclusion of OASDI benefits from tax, which may not have been considered in earlier reports published by the President's Council on Aging.

Table IX analyzes the relative proportions that Federal expenditures for the young and for the aged, respectively, represent of total Federal outlays in the three sectors: education and training, health, and cash benefits. The share of the aged in the period 1960-68 has ranged from 45 to 47 percent of all Federal expenditures for these three purposes.

TABLE IX.—Relative distribution of Federal expenditures for the young and for the aged, 1960-68, selected fiscal years, 3 categories of programs

(Dollar amounts in billions)

Type of program	1960 actual	1963 actual	1966 actual	1967 esti- mate	1968 esti- mate
<b>Education and training:</b>					
Total Federal expenditures.....	\$3.0	\$4.5	\$7.3	\$10.0	\$11.0
For children and youth (under 21).....	\$1.3	\$1.8	\$3.9	\$5.5	\$6.1
Percent.....	43	40	53	55	55
For aged (over 65).....	(2)	(2)	(2)	(2)	(2)
Percent.....	(2)	(2)	(2)	(2)	(2)
<b>Health:</b>					
Total Federal expenditures.....	\$3.5	\$4.7	\$5.9	\$10.9	\$12.4
For children and youth (under 21).....	\$0.4	\$0.6	\$0.8	\$1.1	\$1.4
Percent.....	11	13	14	10	11
For aged (over 65).....	\$0.6	\$0.9	\$1.4	\$5.0	\$5.6
Percent.....	17	19	24	46	45
<b>Cash benefits:</b>					
Total Federal expenditures.....	\$22.5	\$29.5	\$34.8	\$36.8	\$42.2
For children and youth (under 21).....	\$1.6	\$2.3	\$3.2	\$3.4	\$3.8
Percent.....	7	8	9	9	9
For aged (over 65).....	\$12.6	\$16.5	\$19.7	\$20.8	\$23.6
Percent.....	56	56	57	57	56
<b>All 3 categories:</b>					
Total Federal expenditures <sup>4</sup> .....	\$28.5	\$38.0	\$47.0	\$56.3	\$64.0
Total, for children and youth (under 21).....	\$3.3	\$4.7	\$7.9	\$10.0	\$11.3
Percent.....	12	10	17	18	18
Total, for aged (over 65).....	\$13.3	\$17.4	\$21.3	\$25.9	\$29.4
Percent.....	47	46	45	46	46

Sources: See tables III-B, IV-B, V, VII and VIII.

<sup>1</sup> Rough estimate based on amount of "new obligational authority" shown in table III-B.

<sup>2</sup> Unknown, but negligible.

<sup>3</sup> Includes some services for older persons under age 65.

<sup>4</sup> Excludes estimated duplications among categories as follows: 1960, \$500,000,000; 1963, \$700,000,000; 1966 \$1,000,000,000; 1967, \$1,400,000,000; 1968, \$1,600,000,000.

During the same period, the total share of funds for children and youth under age 21 ranged from 10 to 18 percent, with the 18 percent being achieved in 1967 by a rather sharp increase in education and training funds, a category in which funds for the aged are negligible.

Between 1960 and 1968, the annual rate of projected Federal aid for the aged in table VIII shows an increase of \$16 billion. For children and youth total aid in table VII-A rises by \$8.5 billion.

Table IX indicates that while the share of the aged in Federal funds for health has increased sharply to about 46 percent in 1967, the relative share of children and youth has remained at a modest proportion of only about one-tenth. Federal health funds for the aged are around four times as large as for the young.

In the cash benefits area, the aged have received from 56 to 57 percent, whereas the share of the young has ranged from 7 to 9 percent. The Federal Government spends six times as much for cash benefits for the aged as for children and youth.

The share of the children and youth under age 21 in Federal funds for education and training is currently only about 55 percent. This reflects largely the substantial proportion of Federal funds for training military and Federal civilian personnel, for various manpower training programs for adults, for graduate education, and university research.

It should be recognized that these analyses are crude and the figures perhaps not completely comprehensive. For example, there is not complete assurance that all benefits and services for either the aged or youth have been caught in the special tabulations. However, the data are reliable enough to suggest accurately the general state of affairs and the trends.

Considering these figures on funds, it is useful to reflect that the Bureau of Census Current Population Survey data show that:

There are approximately 82 million children and youth under age 21 in the United States as compared to 19 million aged over 65.

Some 5 million persons over age 65 are in poverty, according to the SSA-OEO poverty criteria, while about 14 million never-married children and youth live in poor families, including 12.5 million children who are under age 18.

The total amount of Federal funds for expenditures to assist the aged is somewhat more than double the amount for children and youth. In per capita terms, the aged in 1968 will receive an average of \$1,500 per year in Federal benefits and services while the average expenditure for children and youth is only about \$150 a year. The figure for the aged in fiscal 1960 was \$800, and for the young, \$60. These comparisons do not take into account \$2.3 billion per year of special tax benefits provided recently for those over age 65.

It is often pointed out that the responsibility for education and training in the United States largely devolves upon the local communities and the States. However, in the health and cash benefit areas, a comparable reason for the present unequal distribution of funds is not clearly evident.

An analyst might suggest many questions about this relative allocation of Federal resources: Why is it that the aid for the aged is preponderantly through cash benefits, while that for the young is usually through support of services? Is the elimination of poverty among the aged of greater importance than among the young? What are the comparative social and economic returns to the society from expenditures to increase the level of consumption by these two groups? What are the comparable returns for human "investment" expenditures for the two groups? What, in sum, is the relative importance to the Nation of expenditures for children and youth as compared to expenditures for assistance for the aged?

For example, the social insurance programs which were invented during the New Deal have lifted many millions of people out of poverty. They have been particularly beneficial to the aged, who receive six times as much from OASDI as dependent children. It may be an interesting question to consider which set of remedies works best on the syndrome of social problems which result in poverty. What would the state of social affairs be today if half the increase of \$20 billion devoted between 1960 and 1968 to cash benefits had been channeled to improved education and health services for disadvantaged children in rural backwaters and city ghettos? What if half of the \$17 billion increase in education and health had been devoted to cash benefits?

A possible paradox appears from a comparison of the expenditures in table IX and population data on the number of the poor. Social Security Administration tabulations based on the Current Population Survey show that the number of aged poor declined from 5.9 million (36 percent of all aged) in calendar 1959 to 5.4 million (29 percent of all) in 1966. Cash benefits for the aged increased by \$7.1 billion from fiscal 1960 to 1966 to \$19.7 billion. From 1959 to 1966, the number of children and youth in poverty declined from 16.6 million (24 percent of all) to 14 million (17 percent of all). Cash benefits for children and youth increased from \$1.6 billion in 1960 to \$3.2 billion in 1966.

Within any recipient group there may be important questions to be asked about the distribution of resources. For example, in recent years, there has emerged considerable concern about programs for infants and very young children, for which the Federal Government outlays in the past years have been relatively modest. Consider, for example, the possible implications of three *assumptions*:

That half of a person's cognitive intellectual capability is developed in the first 4 years of life, and most of the rest in the next 4 years.

That nutritional factors, particularly the ability of the body to assimilate proteins or iron, are closely correlated with intellectual capability.

That the ability of the human organism to assimilate proteins is established very early in life and depends upon obtaining sufficient proteins as an infant.<sup>5</sup>

If these assumptions were correct, what would be the implications for the distribution of national resources among the various age groups within the youth group?

*Minority groups.*—The participation of Negroes and other minority groups in our society has emerged as a major national issue. What proportion of programs assist Negroes, Spanish-Americans, and Indians? At present it is virtually impossible to determine the amount of assistance which many programs provide to Negroes, and more difficult to obtain a comprehensive analysis across the board.

<sup>5</sup> See Benjamin S. Bloom, *Stability and Change in Human Characteristics*, New York: Wiley, p. 88, for findings on intellectual development. Relating to nutrition, for suggestive but not definitive discussion, see J. Cravioto, "Nutrition, Growth, and Neurointegrative Development: An Experimental and Sociologic Study," supplement to *Pediatrics*, August 1966, vol. 38, pp. 319-372; and Dr. Richard Barnes, *Food and Nutrition News* (National Livestock and Meat Board), October 1967, vol. 39, No. 1.

*Aid for the poor.*—The effort to reduce poverty is a high priority public policy objective. Table 1 in appendix A indicates that Federal funds for programs assisting the poor have increased from about \$9.9 billion in 1960 to a projected \$25.6 billion in the 1968 Budget. While education/training and health programs have increased rapidly in recent years, cash benefits payments constitute an estimated 57 percent of the funds programed for the poor for 1968.

Many basic issues surround the question of how best to allocate resources to achieve the maximum effectiveness in combating poverty. Some of these fundamental issues are outlined in appendix A. The key issues center on the relative role of human investment programs versus consumption support programs.

To what extent should the Federal Government allocate its resources to alleviate the lot of the poor by providing them with spending money? How much should be dedicated to investment in human resources—to the support of programs which may produce deferred benefits but yet yield such benefits over a long period of time by building the basic productive skills of people who would otherwise be destined to remain in poverty?

Another key question is the relative share of the poor in the Federal Budget and in various sectors of the Federal Budget. To what extent are the most needy in our society recipients of targeted programs which help them effectively? Are diverse programs in sectors such as education, health, environmental development, cash payments, and welfare services balanced and coordinated so that the multiple needs of the poor are best met?

Table X for selected years 1960 to 1968 shows the share of the poor in Federal funds in (a) education and training, (b) health, and (c) cash benefits, and compares the total Federal funds in each of these three sectors with the amount of funds devoted to aid for the poor. The results are rather interesting. The share of the poor in education and training, for instance, has risen from 7 percent in 1963 to a projected 31 percent in 1968, particularly as a result of path-breaking bills such as the Elementary and Secondary Education Act of 1965 and the Higher Education Act of 1965.

Likewise, the share of the poor in Federal health programs has increased 70 percent over this period, to 34 percent in 1968, largely because programs such as medicaid and medicare were enacted in 1965. In the cash benefits area, on the other hand, the share of the poor has remained remarkably stable during this 8-year period, at 35 to 37 percent, although total outlays increased by 88 percent.

TABLE X.—Share of the poor in Federal funds for major social welfare purposes, 1960-68 selected fiscal years, 3 categories of programs

[Dollar amounts in billions]

Type of program	1960 actual	1963 actual	1966 actual	1967 estimate	1968 estimate
<b>Education and training:</b>					
Total Federal funds <sup>1</sup> .....	\$3.1	\$4.2	\$9.6	\$11.1	\$12.3
For the poor <sup>2</sup> .....	\$0.3	\$0.3	\$2.5	\$3.1	\$3.8
Percent.....	10	7	26	28	31
<b>Health:</b>					
Total Federal expenditures <sup>3</sup> .....	\$3.5	\$4.7	\$5.9	\$10.9	\$12.4
For the poor <sup>2</sup> .....	\$0.7	\$1.0	\$1.8	\$3.6	\$4.2
Percent.....	20	21	31	33	34
<b>Cash benefits:</b>					
Total Federal expenditures <sup>4</sup> .....	\$22.5	\$29.5	\$34.8	\$36.8	\$42.2
For the poor <sup>4</sup> .....	\$8.3	\$10.4	\$12.7	\$12.8	\$14.6
Percent.....	37	35	36	35	35
<b>Total, 3 categories:</b>					
Total, Federal funds <sup>4</sup> .....	\$28.6	\$37.7	\$49.3	\$57.4	\$65.3
Total, for the poor.....	\$9.3	\$11.7	\$17.0	\$19.5	\$22.6
Percent.....	33	31	34	34	35

<sup>1</sup> "New obligational authority" for 1966-68; "obligations" for 1960 and 1963. From *Special Analyses*, Budget of the United States, Fiscal Year 1968, p. 89.

<sup>2</sup> "New obligational authority." From table 1, in app. A, "Public Programs for the Poor: Coverage, Gaps, and Future Directions."

<sup>3</sup> From table IV-B; figures are on expenditure basis and hence are somewhat lower than NOA used in measuring aid for the poor; so share of poor is probably overstated slightly.

<sup>4</sup> Both sets of figures on "expenditure" basis. See footnote 2 for source of figures for the poor; table V is source of total benefits.

<sup>5</sup> Total roughly adjusted for overlaps among 3 categories which are estimated as follows: 1960, \$500,000,000; 1963, \$700,000,000; 1966, \$1,000,000,000; 1967, \$1,400,000,000; 1968, \$1,600,000,000.

Because the major portion of assistance to the poor has been through cash benefit programs, the overall proportion of Federal funds for the poor for the three sectors as a group has likewise remained rather stable, at about one-third of the total.

While these figures are admittedly rather rough and are perhaps not as comprehensive and definitive as would be desired, they are encouraging because the share of the poor in these major social welfare programs is about *twice* the proportion of the poor in the total population. The poor in 1966 represented about 15 percent of the population but they received about 34 percent of the Federal funds in these three sets of programs. However, their relative share of funds has actually increased because the number of poor declined from 22 percent of the entire population in 1960 to 15 percent in 1966.

As is indicated in appendix A on programs for the poor, the total national effort on behalf of the poor on a per capita basis is rather substantial—perhaps \$1,350 per poor person. However, as long



experience with American Indians indicates, it is not easy to devise and direct assistance for poor people along lines that are productive and effective in eradicating poverty.

#### WHERE ARE THE FUNDS SPENT?

Another critical breakdown is by geographic area, for example between the rural areas and the central cities. Some programs are directed either to rural or to urban areas by virtue of their clientele orientation. However, many others cut across a broader spectrum and in them in many cases it is very hard to determine where the money is spent.

The *Special Analyses*, Budget of the United States, fiscal year 1968, included rough estimates of Federal aid payments in urban areas in the analysis of "Federal Aid to State and Local Governments." However, comparable formal analyses of the amount of assistance to rural areas have not been published. Action is underway by the Office of Economic Opportunity, in cooperation with the Bureau of the Budget, to develop a reporting system which provides data on the distribution of Federal funds by geographical areas.

This sort of analysis has many interesting implications. Assume, for example, that availability of strong higher educational institutions is essential, in the present economy, for regional economic development and also assume that the overall resultant of present higher education aid formulas and practices is to channel aid to areas that have strong educational institutions.<sup>9</sup>

#### WHAT AID SHOULD BE PROVIDED, AND HOW?

Perhaps no questions are more important than those which relate to what sort of program or assistance should be provided to meet problems such as poverty. While in practice a broad spectrum problem such as "poverty" is differentiated into many subproblems, one of the difficulties of present governmental operations is that these subprograms are seldom if ever integrated into a balanced whole or fully weighed against each other on the basis of comparative benefit/cost appraisals.

The attached appendix on public programs for the poor raises some of the broad-ranging decisions that must be made in selecting an appropriate form of assistance. For the present context of determining what sets of tools to use in solving problems relating to human resources, these questions might be refocused as follows:

Is the objective to build the capabilities of individuals for productive endeavor through investment in development of human abilities by services such as education and health, or is the appropriate assistance of a more immediate type, such as jobs or cash benefits? Will the programs develop the capabilities of individuals, or merely maintain them at their previous or even declining level of competence?

<sup>9</sup> A regression analysis by Mr. A. Bradley Askin in a project for the Bureau of the Budget in 1967 analyzing all Federal funds for higher education gave strong indication that, except for student aid funds, Federal aid for higher education is presently channeled in larger proportions to States with higher fiscal capacity than to those with lesser capability.

Assuming that human resource development is the objective, what is the right combination of education, health, environmental, and other measures? How direct is the connection between the services or assistance provided by the program and the development of increased ability among current or future producers? For example, if it is desired to improve the environment or to provide subsistence assistance through an income maintenance program, how much is known about the connection between these types of activities and the ability of people in the labor force to produce?

Does the program develop, enhance, or build up the capability of individuals—make them economically and socially productive? To what extent is it directed at individuals who are not likely to engage in productive effort; for example, the aged versus the youth, the unemployed who are in the labor force versus those outside the labor force, and so forth?

How lasting will the benefits be to the individuals who receive them; for example, is the assistance mainly maintaining their current standards of living, or is it actually contributing to building up capabilities on which they can draw for many years to come?

What effect would the program have on incentives of individuals or organizations to use resources or energies productively rather than nonproductively? Would the use of the resources contribute to the health of the economy or to improving the social climate?

Is the service delivery system effective and coordinated? What is the relationship of the particular program to other ongoing programs? What is the appropriate time phasing and interconnection of related programs? How should services or assistance be coordinated so that the delivery of assistance or services is economical, and unnecessary duplication is avoided?

What are the respective roles of private organizations, local public agencies, State agencies, and Federal agencies? Is the action program to be in the public sector or in the private sector? Can it use business organizations or private nonprofit agencies to better advantage than public agencies?

How directed should the assistance be? Should the Federal Government simply provide block or broad-spectrum formula grants with little specification of uses and standards, or is the better approach to utilize project grants or other means which channel the resources more specifically?

What is the benefit-cost return of existing programs, and what is the expected yield on the new programs? What provision for evaluation of performance and benefit-cost should be made? Is the yield from alternate approaches likely to be higher? How would the benefit-cost return be changed if the resources were used through a different sector for the same target population?

Assessment of programs along these lines might contribute to separating the programs classified by the Joint Economic Committee, which it reported include those "that support consumption" as well as those that "involve investments in people."<sup>10</sup>

<sup>10</sup> *Op. cit.*, vol. 1. p. 1.

One example might help illustrate a useful approach for focusing decisions. Consider the problem of alternative solutions to the "man-power" problem posed by the unemployed and especially the hard-core unemployed. The fiscal year 1968 budget contained funds for three types of assistance for this group in round figures as follows: (a) \$2.2 billion for *unemployment compensation* and its administration; (b) \$325 million for *employment services* to help find jobs; and (c) \$1.5 billion to *prepare* the unemployed for jobs by means of a series of *training* programs ranging through "institutional" vocational training, skill training, on-the-job work training, and plain employment opportunities.<sup>11</sup>

If this total of \$4 billion were to be increased by \$1 billion in 2 years, which of these three areas should be supported and in what proportions? If the total were to be held constant, could increased returns be attained by shifting funds among programs? What facts would be needed to make the determination? What bureaucratic obstacles overcome?

#### HOW MUCH AND IN WHAT PROPORTIONS?

Resource decisions always involve a question of how much. Human resource development programs must compete with other Federal programs and with tax cuts for their share of the \$10 billion a year "national fiscal dividend."

Among the often neglected but critical elements is a precise definition and measurement of the target universe to which the program is directed.

Other pertinent questions include the following: What is the state of administrative readiness of the Federal, State, and local levels to staff up and use the resources effectively? How fast can funds be absorbed without waste and without creation of needless duplication? If we do not know the marginal rate of return, what is the best judgment on how much can be used before the point of diminishing returns is reached?

With this in mind, how fast should a program or set of programs be expanded, and in what mix? For example, it is relatively easy to gear up checkwriting machines. It is much more difficult to expand programs where service delivery systems are involved, as in education, training, or health. It is still more difficult to mount a series of inter-related service programs, such as those to rehabilitate the hard-core unemployed and disadvantaged poor. Human resource programs require long-range planning and steady direction because of these built-in handicaps.

Finally, in some generalized terms, what is the relative benefit or advantage to the public interest of using  $x$  amount of resources in one sector as compared to another? While the theory may be that the "fisc" allocates resources so that the rate of yield from different programs or different sectors at their margins is equal, in practice little effort has been made to ascertain or compare the relative returns.

<sup>11</sup> The figure for training programs in 1968 includes adult basic education, MDTA, Job Corps, NYC, vocational rehabilitation, work experience, community work training, and CAP programs financed by OEO, Labor, and HEW. In 1960 the training programs were less than \$100 million, the unemployment compensation about \$3 billion, and the employment services slightly over \$100 million.

The intersector implications of many of these questions are focused in the tables which have been presented earlier in this paper. Table VI, which shows the distribution of education-health-cash benefit resources by the Federal Government, perhaps epitomizes the past neglect of explicit attention to comparative benefits from resource distributions among major sectors of Federal Government operations. The overall product might accurately be characterized as the *ex post* summation of many separate incremental decisions, often in situations where Federal programs build up their own momentum and support. (The great bulk of resource allocation decisions in the three sectors are incremental "minidecisions," but some are very large. For example, the Social Security Amendments of 1965 and 1967 involved increases of \$2.3 billion and \$2.9 billion in the first calendar year, respectively. In such trust fund programs these benefit increases continue, for practical purposes, in perpetuity on a growing scale without being subject to annual appropriation review and constitute "fixed" commitments on the budget. The medicare, medicaid, and title I of the Elementary and Secondary Act—disadvantaged children—were also large decisions. But none approaches the size of the 1964 tax cut in deploying resources.)

The consequences of inadequate attention to some of these broader questions were pointedly suggested by some recent analyses of West Europe. Studies of the Organization for Economic Cooperation and Development in 1963 indicated that the countries in Western Europe were lagging far behind the United States in the preparation of youth for higher education. The recent provocative work by Jean-Jacques Servan-Schreiber attributes a substantial share of the problems of Western Europe to the lack of adequate emphasis on higher education. It has been reported that an average of 8.8 percent of the population between age 20 and 24 in Western Europe is in college or university compared with 43 percent in the United States.<sup>12</sup>

A related observation of the present writer is that while Western European nations tend to neglect the allocation of resources to education, their support of social insurance and cash benefit programs is much higher—about two or three times as high—in proportion to their national product than the U.S. effort. It would be interesting to analyze the effect of these resource allocation choices on the economic and social development of the countries compared to the situation in the United States.<sup>13</sup> Is the United States headed in the same direction?

Table X indicates that one of the critical choices which has been made in the Federal Government is to support cash benefit programs more heavily than education/health programs. Calculations relating to the increase in earnings from education in relation to the real cost of acquiring it suggest that the returns in the 1930's or 1940's for higher education were perhaps 10 to 12 percent and that the returns for primary or elementary education might have been as high as 35 to even 50 percent.<sup>14</sup>

Comparable calculations on the returns from cash benefits are unknown to this writer. However, there are some preliminary data

<sup>12</sup> "West Europeans Attribute Continuing Technological Lag Behind the United States to Inferior Management." *The New York Times*, Dec. 13, 1967, p. 6.

<sup>13</sup> Joint Economic Committee, "European Social Security Systems" (Paper No. 7, 1965), p. 11.

<sup>14</sup> Frederick Harbison and Charles A. Myers, *op. cit.*, pp. 9-10.

which may suggest avenues of exploration in relation to the problem of poverty. One study which endeavored to estimate the annual cost to the Government of raising the family incomes of families in the \$2,000–\$3,000 range concluded that the use of transfer payments might be several times as expensive as the use of education and training.<sup>15</sup>

Another study suggested that the effectiveness of additional OASDI increases in reducing poverty, using formulas which tended to raise all benefits rather proportionately, was within the low range of 14–19 percent.<sup>16</sup> Further, still another study indicated that the proportions of various current income-maintenance programs going to persons with incomes under \$2,000 for farm and \$3,000 for urban families varied widely, from 12 percent for retired pay for military personnel, to 51 percent for OASDI, and 100 percent for public assistance in 1960.<sup>17</sup>

Table IX above, which shows the relative distribution of Federal funds for the young and the aged, and the accompanying discussion, suggest another important dimension relating to the distribution of cash benefits by the Federal Government. Is poverty among children and youth, for example, more tolerable than among the aged? How do the social and economic costs of poverty compare for the two groups? What is the economic benefit/cost return over their remaining lifetimes from lifting representative groups of aged and children out of poverty? What are the weights in the humanitarian equation? As human beings with hearts and emotions, we may resent this approach. Yet emotion is a poor substitute for logic and facts for allocating resources. Wasteful and poorly directed allocation of resources may ruin more lives for more years.

#### SOME CONCLUDING REFLECTIONS

An economy with growing productivity and growing GNP can afford more—both for economic security and for development of human resources. Investment in the productive capabilities of people, specifically young people, can contribute to the growth of the GNP, particularly if the programs are properly designed, balanced, and directed.

Even in a growing economy, Federal Government in a private-enterprise society cannot meet all the demands presented to it. Resources are limited and must be allocated where they do most good, economically and socially. Some would also add, politically. But, choices must be made, for resources are limited in any society.

Many agencies are involved, and they in turn administer many different programs. These programs are based on many different philosophies, and their administrators often seek different objectives, perhaps even conflicting objectives. Programs operate, moreover, through the States and localities or even nonprofit organizations, which have diverse objectives and methods.

<sup>15</sup> Richard Muth, "The Evaluation of Selected Present and Potential Poverty Programs," Institute for Defense Analysis, January 1968, p. xi.

<sup>16</sup> U.S. Department of Health, Education, and Welfare, "Income and Benefit Programs," October 1968 ("Program Analysis 1968-2"), p. 25.

<sup>17</sup> Nell S. Weiner, "The Distribution of the Gross Benefits of Present Federal Welfare and Income-Maintenance Programs," Institute for Defense Analyses, February 1966, p. 14. Note that these are average figures rather than marginal figures derived in the preceding study.

The science of resource allocation is still underdeveloped, though the art has long been practiced. At present, in the Federal Government the allocation of social welfare resources is pragmatic rather than scientific. PPB has brought new tools for improvements in the art of analysis and allocation, but neither the tools of program analysis or evaluation nor the data base to which they are applied are yet adequate to permit effective cost-effective analysis on more than a selective basis. However, acceptance of the methodology is heartening and prototype analyses are emerging in numbers.

Moreover, the establishment of program objectives as well as the evaluation of programs is still essentially at the micro stage. Although sweeping statements of goals may be made, the spotlight focuses on activities or on particular programs.

It seems generally true that no consistent, concerted strategies and measured, phased objectives govern the allocation of limited resources in the health, education, and cash-benefit sectors. Some across-the-board analysis of the allocation of Federal funds is conducted, but much of it is *ex post* rather than *ex ante*. It is not effectively directed toward or used in the big decisions that govern the interprogram or intersectoral allocations of resources across Federal agencies or major purposes.

The difficulties cannot be overmagnified. There is greater need for consistent attention to the broader strategies and relative returns that flow from the allocation of resources to various human resources sectors and to other functions. Relative payoffs of programs within sectors also can fruitfully be investigated, for this sort of analysis can help provide the foundation for broader judgments. Interprogram analysis, and ultimately goal setting based on consideration of both needs and relative benefits, can contribute to the development of an integrated, effective strategy of human resource development. Such a strategy is an essential part of the broader goal of promoting the social welfare of the American people.

To develop such a strategy in the burgeoning human resource program area there is a present need for a thoroughgoing assessment of the social state of our society: of recent trends, of pressing current and emerging problems and their causes and interrelationships, of our array of social programs and their coverage, and of the state of our knowledge regarding ways to solve social problems and develop our human resources effectively, with equal opportunity for all. We need to know where we are in this field, how we got there, and what real capabilities we have for getting to the objectives desired for the future. Such stocktaking of social trends, problems, and available tools can serve as a foundation for development of an integrated system of goals, scheduled objectives, and projected programs, in the context of a realistic appraisal of the economic, manpower, fiscal, and administrative capabilities of our society.

## APPENDIX A

PUBLIC PROGRAMS FOR THE POOR: COVERAGE, GAPS,  
AND FUTURE DIRECTIONS

BY MICHAEL S. MARCH

Public attention in the "war on poverty" tends to focus on the \$2 billion budget for the Office of Economic Opportunity (OEO). Funds from public programs to assist the poor, however, are on the order of 20 times the amount budgeted for OEO. This paper analyzes how much Federal, State, and local governments are spending to help the poor, what kinds of programs they are supporting, and looks ahead at some of the fundamental choices that we face in the future on these programs.

## PRESENT PUBLIC PROGRAMS FOR THE POOR

## FEDERAL PROGRAMS

The OEO has imparted a new and significant thrust to the war on poverty, but the Federal antipoverty effort is much broader and larger. The President's budget message for fiscal year 1968 indicated that 10 Federal agencies would devote an estimated \$25.6 billion to help the 30 million poor people in our Nation. Table 1 provides information on the programs included in this total. The figures are based on the January 1967 budget and do not reflect the results of congressional action which is not yet completed. It should be noted, however, that the total for fiscal year 1967 was estimated at \$22 billion in the middle of the year, so the overall picture will largely remain even if the 1968 budget should be changed significantly by the Congress.

First, a few words should be said about the content of this analysis:

The tabulation is designed to measure program levels. For administrative budget accounts, the figures are largely new obligational authority. For the trust fund programs, expenditure data are used because they are the best measure of program level. Trust funds, such as social security (OASDI) are included where appropriate because the benefits they provide directly assist the poor. The ravages of poverty were a major factor motivating the creation of the social security programs in 1935. A report at that time indicated that at least one-half of the 7.5 million people then over 65 years of age were dependent.<sup>1</sup>

The analysis includes only those Federal programs which make a direct impact on low-income people. Only the funds which benefit people with incomes below the poverty line are counted. The income levels used to measure the poverty line were worked out in a special joint study by the Social Security Administration and the OEO. The levels vary as among single people, married couples, small families, and large families, et cetera. For example, the poverty line for a single person was \$1,540, while for a family of four it was \$3,130 in calendar 1963.

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NOTE: This paper was prepared for presentation at the October 1967 Conference of the National Tax Association in Atlanta, Ga., and is printed in this compendium with the permission of the Association. The views expressed in the paper are those of the author and do not necessarily represent those of the Bureau of the Budget.

<sup>1</sup> The Committee on Economic Security, "Report to the President," U.S. Government Printing Office, Washington, D.C. (1935), p. 24.

The figures are necessarily statistical estimates rather than precise accounting data. Survey data from many different sources—HEW, VA, Labor, Census, other agencies—were used by Bureau of the Budget staff to estimate the proportions of benefits going to the poor from individual programs. More than 100 programs with funds totaling \$59 billion in 1968 were included in the analysis.<sup>2</sup> Only a few of the programs, such as the OEO funds, the public assistance, and the Indian health and education programs, were counted 100 percent as assisting the poor. For the great bulk of the programs, only portions of the funds were counted as going to the poor. For example, about one-third of social security (OASDI) benefits were counted; 40 percent of the health insurance for the aged; 30 percent of hospital care by the Veterans' Administration; 20 percent of unemployment compensation benefits by Labor; two-thirds of public housing by the Department of Housing and Urban Development; 95 percent of title I grants and 30 percent of other programs under the Elementary and Secondary Education Act.

Many other programs which indirectly help to provide jobs or serve the poor or help the poor insofar as they are members of the general population are entirely excluded from the analysis. For example, most public works programs, including the entire Federal-aid highway program, are excluded. Recreation and park programs, which make it possible for poor people to have some recreation, are not counted. None of the substantial expenditures for Defense contracts or for military personnel which provide jobs and incomes for many people below the poverty line are included. Finally, this analysis makes no effort to take account of the benefits to the poor from fiscal and economic policies which maintain high employment and make it possible for unemployed individuals to secure jobs or for the underemployed to secure better jobs.

TABLE 1.—*Estimated Federal funds for programs assisting the poor, fiscal years 1960-68*

[Administrative budget and trust funds, billions of dollars]

Category	1960 actual	1963 actual	1966 actual	1967 estimate	1968 estimate
<b>Education and training:</b>					
HEW:					
Elementary and Secondary Education Act of 1965.....			1.0	1.1	1.3
Other.....	0.1	0.2	.5	.7	.7
OEO-NYC, Job Corps, CAP, etc.....			.7	.9	1.3
Labor-MDTA, etc.....		(1)	.1	.2	.3
Interior.....	.1	.1	.1	.1	.1
VA.....	.1	(1)	(1)	.1	.1
Subtotal.....	.3	.3	2.5	3.1	3.8
<b>Health:</b>					
HEW: Health insurance for the aged and disabled (HI and SMI).....					
Public assistance medical care.....	.2	.4	.7	1.0	1.2
Other.....	.2	.3	.6	.7	.8
VA: Hospital and domiciliary care.....	.3	.4	.4	.4	.4
OEO: CAP, etc.....			.1	.1	.1
Subtotal.....	.7	1.0	1.8	3.6	4.2

See footnotes at end of table.

<sup>2</sup> Included in this base was nearly \$27 billion of OASDI, of which about \$4 billion was under proposed legislation, and \$32 billion of other funds.



TABLE 1.—*Estimated Federal funds for programs assisting the poor, fiscal years 1960-68—Continued*

[Administrative budget and trust funds, billions of dollars]

Category	1960 actual	1963 actual	1966 actual	1967 estimate	1968 estimate
<b>Cash benefit payments:</b>					
HEW: OASDI.....	4.0	5.3	6.8	6.8	8.5
Public assistance.....	1.8	2.3	2.8	2.9	3.0
Railroad retirement.....	.3	.3	.3	.3	.4
Labor: Unemployment benefits.....	.5	.6	.4	.4	.4
VA: Compensation and pensions.....	1.6	2.0	2.3	2.4	2.4
Subtotal.....	8.3	10.4	12.7	12.8	14.6
<b>Services, economic and community development, etc.:</b>					
Agriculture: Food programs.....	.2	.3	.4	.4	.5
Other.....	.2	.3	.5	.3	.2
Commerce: EDA and Appalachia.....	-----	.1	.2	.3	.2
OEO: CAP and other.....	-----	-----	.6	.6	.6
HEW: VRA, WA, etc.....	(1)	.1	.1	.1	.1
HUD:					
Public housing and rent supplements.....	.1	.1	.1	.2	.2
Urban renewal and other.....	.1	(1)	.3	.3	.8
Interior: Services to Indians, etc.....	.1	.2	.2	.2	.3
Labor: Employment, youth and other services.....	(1)	.1	.1	.2	.1
SBA (economic opportunity loans).....	-----	-----	-----	-----	-----
Subtotal.....	.7	1.2	2.6	2.5	3.1
<b>Total:</b>					
Administrative budget.....	5.1	6.8	11.8	13.0	14.6
Trust funds.....	4.9	6.2	7.7	9.1	11.1
Grand total.....	9.9	13.0	19.6	22.0	25.6

NOTE.—Figures may not add because of rounding.

Source: Bureau of the Budget.

<sup>1</sup> Less than \$50,000,000.

Now, let us turn to the substance of the data in table 1. The following points stand out:

1. *Total Federal aid* for the poor has nearly doubled in the last 6 years, rising from \$13 billion in fiscal 1963 to an estimated \$25.6 billion in the 1968 budget. The programs under the Economic Opportunity Act contribute \$2 billion toward this increase.

2. *Cash benefits* for maintenance of incomes in 1968 are estimated at \$14.6 billion, or 57 percent of all aid to the poor. They include OASDI benefits of \$8.5 billion, of which \$1.6 billion was under proposed legislation, still pending in the Congress.

3. *Education and training* programs, including work training programs, will total \$3.8 billion in 1968, an increase of more than twelve-fold since 1960 and 1963. Programs initiated under the Economic Opportunity Act of 1964 and the Elementary and Secondary Education Act of 1965 account for the bulk of the increase.

4. *Health* programs are estimated at \$4.2 billion in 1968, a sixfold increase over 1960. Health insurance for the aged and grants to States for medical assistance programs under title 19 of the Social Security Act, as enacted by the Social Security Amendments of 1965, are large factors in the rise in this category.

5. *Social services, aid for economic and community development, special food programs, public housing, and urban renewal programs,*

etc., provide the bulk of the last catchall category. In total they were projected to increase more than fourfold, from \$0.7 billion in 1960 to an estimated \$3.1 billion in 1968.

Two main points stand out in table 1 about the Federal programs for aid to the poor.

First, the 2½-fold increase from \$9.9 billion in 1960 to a projected \$25.6 billion in 1968 represents distinct progress. In relation to the cash payments budget, this represented an increase from 10.5 percent in 1960 to 14.8 percent in 1968.

Second, and even more important, is the change in the nature of assistance provided. In fiscal 1960, nearly 84 percent of the Federal aid of \$9.9 billion was through cash benefit payments. Education, health, service, and community development programs comprised only \$1.6 billion or 16 percent.

Although the proposed program for 1968 included \$14.6 billion of cash benefit payments, 76 percent more than in 1960, this category had declined to 57 percent of the total. Education, health, service, and economic and community development programs had increased more than sixfold since 1960 to \$11.0 billion in 1968 and comprised 43 percent of the total. There has been a clear shift toward human investment programs as a major weapon in the war against poverty.

A third principal point is demonstrated by table 2, which classifies the Federal funds for the poor by agency. The Office of Economic Opportunity, which is in the Executive Office of the President and has the principal coordinating role in the effort against poverty, provides less than 8 percent of all the Federal funds for this effort—mostly for innovative and gap-filling programs. The Department of Health, Education, and Welfare provides \$17.3 billion, or 68 percent of all the funds, including \$8.1 billion from the administrative budget. The Veterans' Administration is the second largest agency provider of funds, accounting for \$2.9 billion or 11 percent. Six other agencies provide a total of \$3.4 billion or 13 percent.

TABLE 2.—*Estimated Federal agency funds for programs assisting the poor, fiscal years 1960-68*

[Administrative budget and trust funds, billions of dollars]

Agency	1960 actual	1963 actual	1966 actual	1967 estimate	1968 estimate
Agriculture.....	0.4	0.6	0.9	0.7	0.7
Commerce.....	.....	.1	.2	.3	.2
Health, Education, and Welfare.....	8.3 (4.0)	8.6 (5.3)	12.9 (6.8)	14.7 (8.2)	17.3 (10.2)
Housing and Urban Development.....	.2	.1	.4	.5	1.0
Interior.....	.2	.3	.3	.3	.4
Labor.....	.5 (.5)	.7 (.7)	.6 (.5)	.7 (.6)	.5 (.5)
Office of Economic Opportunity.....	.....	.....	1.4	1.6	2.0
Railroad Retirement Board.....	.3 (.3)	.3 (.3)	.3 (.3)	.3 (.3)	.4 (.4)
Veterans' Administration.....	2.0	2.4	2.7	2.9	2.9
Total.....	9.9 (4.9)	13.0 (6.2)	19.6 (7.7)	22.0 (9.1)	25.6 (11.1)

Source: Bureau of the Budget.

NOTE.—Figures in parentheses represent amounts of trust fund expenditures included in each respective total. Figures may not add because of rounding.

## STATE AND LOCAL GOVERNMENT AND PRIVATE VOLUNTARY OUTLAYS

Only the roughest estimates of State and local government and private voluntary agency expenditures for assistance to the poor are available. A contract study made for the Office of Economic Opportunity soon after it was established indicated that in the fiscal year 1964 (some of the figures were for 1963) a total of \$12.9 billion expended by State and local governments assisted the poor. This total does not include the State-local share of federally aided public assistance programs which, at that time, was on the order of \$2 billion.

The emphasis, however, was somewhat different from that of the Federal Government. Only about \$4 billion was for financial assistance, including public assistance, and about \$11 billion was for education, health, community facilities, and other programs. This tabulation assumes that expenditures for building highways and utilities assist the poor, and so is less restrictive than the Federal estimates.

An additional \$2.4 billion was estimated as being provided by private voluntary agencies, of which only about \$200 million was financial assistance and the remainder was for education and training, health, and other programs. (See table 3.)

It would be reasonable to assume that the \$17 billion—including public assistance—which was provided by State and local governments and private organizations for aid to the poor in 1964 has not diminished in the last 4 years and probably has increased substantially.

TABLE 3.—*Estimated expenditures by State and local governments and private voluntary agencies for aid to the poor*

[Mostly fiscal year 1964; in billions of dollars]

Program category	State and local governments	Private voluntary agencies
Education and training <sup>1</sup> .....	4.8	1.2
Health, including mental health <sup>1</sup> .....	2.1	.5
Financial assistance .....	<sup>2</sup> 2.0	.2
Other:		
Community facilities <sup>3</sup> .....	2.2	.1
All other .....	1.8	.4
<b>Total</b> .....	<b><sup>2</sup> 12.9</b>	<b>2.4</b>

Source: Griffenhagen-Kroeger, Inc. "Non-Federal Anti-Poverty Programs in the United States," July 1965.

<sup>1</sup> Adjusted to include capital facilities.

<sup>2</sup> In addition, States and localities spent approximately \$2,000,000,000 in matching grants for the federally aided public assistance programs.

<sup>3</sup> Includes highways, utilities, etc.

Thus, aid to the poor in 1968 from Federal, State and local, and private sources must exceed \$40 billion, and probably all but \$2-\$3 billion of this comes from public funds. The total represents about 5 percent of GNP and approximates \$1,350 per poor person.

## GAPS IN POVERTY PROGRAMS

Judging from pronouncements by groups, conferences, committees, and individuals, public and private, who propose additions and improvements in poverty programs and other closely related areas, some people believe the biggest gap in the antipoverty effort is the lack of

sufficient spending. Among the suggestions have been proposals which could readily result in doubling or tripling the present Federal anti-poverty effort. They include the following:

A "Freedom Budget" by the A. Philip Randolph Institute proposing additional expenditures of \$185 billion in 10 years, 1966-75, for social investment. It would be designed to abolish poverty, provide guaranteed jobs, guaranteed incomes, decent homes, modern health services, and full educational opportunity for all, as well as achieve other objectives.<sup>3</sup> A large part of the strategy is to heat up the economy to provide lots of opportunities for the minorities.

The report of the Advisory Council on Public Welfare, which proposed a national minimum standard for public assistance payments geared to the cost of a modest but adequate family budget and provision of such aid and social services as a matter of right. These plus the many other proposals in the report, although not priced, clearly added up to a multibillion dollar effort.<sup>4</sup>

A symposium on guaranteed income plans, hosted by the Chamber of Commerce of the United States, at which the merits of "negative income tax" plans costing \$10 billion or more a year were debated.<sup>5</sup>

Proposals by the Council for the White House Conference on Civil Rights which made many recommendations for economic security and welfare, housing, justice, and education, including a suggestion that the then average public expenditure of \$533 per pupil be increased to a goal of \$1,000 per child.<sup>6</sup> There are about 43 million public school children, so the implied outlay for this single proposal was on the order of \$20 billion.

A \$3-billion, 2-year, emergency slum job and riot damage program approved by the Senate Poverty Subcommittee as an add-on to the 1967 extension of the Economic Opportunity Act.<sup>7</sup>

Senate bill 2088, 90th Congress, first session, by Senator Robert F. Kennedy and 20 others—the Urban Employment Opportunities Development Act—to allow tax credits, accelerated depreciation, and extra deductions for wages, etc., to firms creating jobs in ghettos. The initial cost is not large but the proposal is interesting for its use of the tax side of the budget and its probable expansibility.

A \$9-billion-a-year program of children's allowances.<sup>8</sup> If all the 80 million children and youth were made eligible for such payments, as was apparently intended, this would work out to less than \$10 a month for each—about enough to pay for lunch at school.

<sup>3</sup> "Federal Role in Urban Affairs," hearings before the Subcommittee on Executive Reorganization of the Committee on Government Operations, 89th Cong., 2d sess., pt. 9, Dec. 6, 1966, pp. 1889-1992.

<sup>4</sup> Report of the Advisory Council on Public Welfare, "Having the Power, We Have the Duty," June 1966.

<sup>5</sup> The Chamber of Commerce of the United States, "Proceedings of the National Symposium on Guaranteed Income," Dec. 9, 1966, p. 28.

<sup>6</sup> White House Conference "To Fulfill These Rights," Council's report and recommendations to the conference, June 1966, p. 36.

<sup>7</sup> *Washington Post*, Aug. 16, 1967.

<sup>8</sup> Daniel P. Moynihan, "White Blindness Lamented," *Washington Post*, Aug. 6, 1967, sec. B, p. B-5.

Various studies indicate that rural America lags behind urbanized areas in income and in vital social services and that large resources will be needed to redress the balance. A President's National Advisory Commission on Rural Poverty has been asked to study and make recommendations on the entire gamut of policies and programs affecting rural life.<sup>9</sup>

Mayor Jerome P. Cavanagh, president of the National League of Cities and also of the U.S. Conference of Mayors, has testified that price tags in congressional hearings for seven programs which affected cities totaled \$242 billion over the next 10 years.<sup>10</sup>

Among the scores or even hundreds of specific ways of spending more money to help the poor, some large contenders include:

The *negative income tax*, guaranteed income, or an equivalent restructuring of the public assistance programs, that would cost \$10 or \$12 billion a year—and much more if they spread, as would be natural, to some people now above the poverty line.

*Job opportunity* or "manpower" programs which could range all the way from a few hundred millions to several billions more per year.

*Cities programs* to rebuild the physical facilities and service systems of ghettos and to create opportunities in them for the minority groups at costs that range up to or exceed the entire present Federal outlay for aid to the poor.

Programs to restructure *education* for the underprivileged completely by as much as doubling the present per student outlay.

In addition, there are, of course, all sorts of proposals to expand on-going programs of the agencies listed in table 2 in the health, community action, economic development, rural life, and other fields.

#### FUTURE DIRECTIONS FOR POVERTY PROGRAMS

One need not believe Pareto's "law" concerning the persistence of inequality in the distribution of incomes to recognize that the elimination of poverty is indeed a difficult problem. Neither natural abilities of men nor the play of fortune on their lives are so uniform that the extremes of the normal distribution are canceled out. One of the functions of society is to moderate the ill effects upon the unfortunate minority who are poor. How can the public do this best?

Where public programs are being formulated for an effort such as combating poverty, it is natural to ask: How much? However, perhaps even more fundamental, are the questions:

What kinds of tools shall be used?

Who should receive the assistance?

By whom should the action be taken?

While resources are always limited, today the future directions of the war on poverty are covered by extremely murky clouds of fiscal uncertainty. The fiscal situation places a very large premium on care-

<sup>9</sup>For example, see "Rural People in the American Economy," Agricultural Economic Report 101, U.S. Department of Agriculture, Economic Research Service, October 1966. The President's Commission was established by Executive Order No. 11808, dated Sept. 27, 1966.

<sup>10</sup>"Federal Role in Urban Affairs," Aug. 23, 1966, pt. 3, p. 624. See footnote 8.

ful planning and programing of the resources that are currently dedicated to the antipoverty effort and careful scrutiny of new programs.

Both fiscal policy tools of macroeconomics and structural measures have been used in the antipoverty effort in recent years, and their effects are intertwined. The number of poor, according to the Bureau of the Census and the Department of Health, Education, and Welfare, has declined from 40 million in calendar 1960 to approximately 34 million in 1964 and then to about 29.7 million in calendar 1966. By any standard 29.7 million people are still a very large group of poor in an affluent society which is enjoying high employment.

Out of the large number of existing programs and proposals for new programs and expanded programs to fight poverty, how do we find the best ways to speed up the permanent removal of these 29.7 million poor from poverty? How can we break the vicious intergenerational cycle of poverty?

One way for those seeking to design better solutions and to direct resources to more effective channels might be to address the following types of tradeoffs or alternatives:

1. *Cash benefits versus human resource development.*—An extremely significant contribution toward alleviating poverty has been made by the income maintenance programs which were initiated in the depths of the great depression. Public income maintenance programs in fiscal year 1966 totaled \$39.8 billion, compared to \$25.3 billion in 1960 and \$8.9 billion in 1950. In 1966, Federal funds provided \$34 billion and State and local governments, \$5.8 billion.<sup>11</sup> These programs have raised millions of people above the poverty line.

Yet poverty was far from abolished. One possible reason appeared in estimates by the Council of Economic Advisers that in fiscal year 1965 only about one-fourth of all the public transfer payments went to persons who were below the poverty line.<sup>12</sup> In the future, if there are no drastic changes in the structure of present public income maintenance programs, a declining proportion of benefits will go to the poor, particularly in the social insurance category. About half the poor today cannot qualify for cash benefits of any sort.

Recognition of the importance of investment in human resources, particularly through education and health, is a recent phenomenon among economists.<sup>13</sup> This awareness has been accompanied by a major thrust in Federal programs in the last several years toward increasing education and health programs, especially for the poor.

The choice between these two sets of tools is not an easy one. Income maintenance payments, if properly directed, can produce an immediate effect in lifting people out of poverty. But some believe that they may have adverse incentive effects, and there seems to be a considerable reluctance to provide funds for welfare benefits. The structuring of income maintenance programs to direct the funds to the poor is, moreover, not an easy matter.

Human resource programs, according to the evidence adduced by T. W. Schultz, Edward F. Denison, and others, produce a good cost-

<sup>11</sup> *Federal Programs for the Development of Human Resources*, Joint Economic Committee, 89th Cong., 2d sess. (December 1966), vol. 1, pp. 11-14.

<sup>12</sup> *Economic Report of the President*, January 1966, p. 114.

<sup>13</sup> See my commentary in "Poverty: How Much Will the War Cost?", *The Social Service Review*, vol. XXXIX, No. 2, June 1965, pp. 150-151.

benefit return and play a large role in economic growth. However, they operate in the long run, and our knowledge of how to direct them effectively to assist those who live in the subculture of poverty is still limited.

In passing, it should be noted that cash benefits can be traded off against jobs or jobs with training. This is currently under active debate in the Congress on the program for aid to families with dependent children.

There is, in effect, a whole continuum of possible programs ranging from solid rehabilitation by means of education and training and other measures to equip people for *bona fide* jobs in the competitive job market; so-called "work training" which prepares people by exposing them temporarily to the responsibilities of a regular job; "make work" or sheltered work which could provide permanent jobs for individuals who are not employable in the regular labor economy; and outright cash support. When and to what extent is each type appropriate?

2. *The aged versus the youth.*—When the Social Security Act of 1935 was first being structured, two groups were clearly recognized as being prime targets requiring protection against deprivation: the aged and the children. The evolution of public programs since then largely favored the aged, at least in the Federal arena. The fiscal year 1968 budget contains benefits and services estimated at \$29 billion for persons over age 65 and on the order of \$12.5 billion for children and youth under 21. No breakdown by age is available on the funds for the poor in table 1, although it is clear that major portions of both the cash benefits and health categories are directed to assisting the aged. On the other hand, the education and training category is largely directed toward assisting children and youth. Substantial new legislative advances have been made for both groups since 1964.

Of the approximately 29.7 million Americans who were below the poverty line in 1966, some 5 million were over age 65 and 14 million were children and youth under age 21. What would be the comparative social and economic returns from additional allocations of resources to these two groups? Through what sorts of programs can assistance be targeted to the poor in each of these categories without great leakages of resources to the much larger numbers of nonpoor who are in both these categories? And what, also, should be done for the other 11 million American poor who are age 22 to 64, many of whom are in families with children?

3. *Negroes versus the rest of the poor.*—Data from the March 1966 Current Population Survey indicated that 69 percent of the poor were white. Yet, of the 22.6 million nonwhites, 45 percent were below the poverty line and Negroes made up 31 percent of the poor. Only 13 percent of the whites were poor.

The problem of poverty among the Negroes is exacerbated and complicated by the legacies of past discrimination and the effects of remaining discrimination. Solution of this deep problem is further complicated by the riots which have injected factors that go far beyond that of poverty. How does the policymaker and allocator of resources address the interlinked problems of reducing poverty and achieving full rights for the Negro in our society? And what comparative priority should be accorded to the poverty-stricken whites who constitute

69 percent of the poor and many of whom fear the competition of the rising Negro?

4. *Cities versus rural areas.*—The March 1965 Current Population Survey indicated that 43 percent of all the poor lived in rural areas. In the early years of the OEO effort, the rural areas did not receive their share of the OEO dollar, although efforts are being made to redress this.

Recently, there has been strong emphasis on the problems of the urban ghettos. Yet it is also being recognized increasingly that many of the people who are the residents of the ghettos had migrated from the rural slums. One poverty-laden area in Chicago has more residents born on the Mississippi Delta than it has natives of Chicago.

What is an appropriate national strategy for meeting equitably and effectively the problems of poverty in both rural and urban areas?

5. *Self-help versus massive aid.*—The OEO programs are built on the principle that individuals and communities should be given opportunities to help themselves. Development of individual abilities and skills and active community organization and development are viewed as steps toward a lasting improvement in the lot of the poor.

Many suggestions are made, however, for large direct assistance through cash grants or make-work. What are the tradeoffs of these approaches in speed, social and economic effect, public acceptability, and ultimate cost/effectiveness?

6. *Direct aid to individuals versus environmental improvement.*—The great bulk of the Federal, as well as State-local and private efforts for assisting the poor, has been for programs which are designed to provide services and cash benefit payments to individuals and families. The proportion of funds for reshaping the urban ghettos and rural slums in a physical sense has been modest.

What role does a new environment play in helping the deprived? How should brick and mortar programs which are designed to change the physical environment for the poor be articulated with service programs? What are the relative payoffs of aid to the poor through providing new housing or new community facilities as opposed to using the funds for services? How can the poor be buffered against the possible ill-effects of reconstruction programs which require their relocation?

7. *Private versus public action.*—Although the relative role of private voluntary agencies is diminishing as large public programs are created to assist the poor, the function of nonprofit agencies and of business enterprise in the effort against poverty remains a key consideration. Despite the large numbers of proposals for huge Federal programs, it is doubtful that few serious students of the body politic would thrust the whole burden of combating poverty on governmental agencies.

The relationships and roles of public and private organizations in this effort, however, are far from settled. What imaginative ways can be devised to encourage private businesses to use the untrained and to help create better conditions for the poor? What is the role of mixed public-private agencies such as the community action programs (CAP's) which are emerging under the Economic Opportunity Act



programs? How can incentives be structured into programs so that administering agencies and recipients will adopt the socially beneficial and productive courses of action rather than wasteful nonproductive roles? Can the general public be educated so it will elect to invest its resources in fundamental preventive and rehabilitative measures that strike at the roots of poverty but have a deferred yield? Or must public policy wait until it is too late to use all but the stopgap and palliative measures?

8. *Fragmented programs or concerted programs?*—The *OEO Catalog of Federal Assistance Programs* for June 1967 lists a total of 459 programs which are designed to assist American people in furthering their social and economic progress. These programs are administered by 15 different Federal agencies or departments and by many bureaus within them. The Federal administrative structure in a large number of cases is paralleled by similar organizations at the State and at local level.

The existence of these many categorical programs and compartmentalized agencies makes it difficult to concert services for the poor. Promotion of services for the poor is further handicapped because in many instances the State or local agencies have not been decentralized to poverty areas. Although financial assistance programs are also categorical, it has proved easier to spend large amounts for cash transfers than for the provision of preventive and rehabilitative services. Technology and organization for the delivery of concerted services in communities is still largely in the horse-and-buggy stage.

The creation of CAP's under the aegis of the OEO and the drive toward decentralization of services into the poverty neighborhoods through neighborhood centers has brought a refreshing new thrust to the effort against poverty. This has, of course, also been accompanied by a good deal of static as new institutions confronted old institutions, or as submerged peoples found a voice through which they could express their desires and their views. The question remains unanswered, however: How ready are our governmental agencies and institutions to administer effectively large additional amounts of resources to assist the poor? Can we perhaps find improved patterns of service-delivery, both responsive to the poor and cost/effective—and devise new methods of providing governmental financial assistance—which permit concerted services for individuals, family centered services, and grass-roots community or neighborhood action to solve the fundamental problems of poverty? <sup>14</sup>

There is a healthy omen in the plethora of proposals which are being debated. Debate and, beyond debate, critical testing of all proposals is essential, for perhaps the biggest gap in the poverty programs is the gap in knowledge. We know little about the causes of poverty and even less about its cures. Basic research has been neglected and cost/effectiveness research—especially in the interprogram area—is still in its infancy. Yet the problem of poverty is a central issue of our society.

<sup>14</sup> For an insight into the complex institutional and organizational problems see symposium on "Antipoverty Programs" in *Law and Contemporary Problems*, vol. XXXI, Winter 1966, No. 1.

## APPENDIX B

### *U.S. Government Expenditures for Selected Programs Relating to Human Resource Development and Social Welfare*

[NOTE.—These 2 excerpts from pp. 458-460 and 467 of the *Budget of the United States Government*, fiscal year 1968, summarize the 4 principal budget "functional" categories in which most human resource and cash benefit programs are covered. It should be noted, however, that many other training, health, and some cash benefits programs are included in other categories. The figures below are shown on 2 bases: the regular "administrative budget" basis, and the "cash payments to the public" basis, which includes trust funds.]

#### A. ADMINISTRATIVE BUDGET EXPENDITURES BY FUNCTION, 1957-68

[In millions of dollars]

Description	Actual										Estimate	
	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968
550 Housing and community development:												
551 Aids to private housing.....	-254	-126	732	-172	-44	-149	-537	-595	-818	-406	-62	-376
552 Public housing programs.....	60	51	97	134	150	163	178	149	230	233	263	282
553 Urban renewal and community facilities.....	49	78	108	130	162	261	222	306	420	446	561	982
555 National Capital region.....	27	26	33	30	51	74	70	59	64	75	127	135
Total, housing and community development.....	-118	30	970	122	320	349	-67	-80	-104	347	890	1,023
650 Health, labor, and welfare:												
651 Health services and research.....	461	523	664	774	917	1,177	1,437	1,784	1,781	2,523	4,265	4,767
652 Labor and manpower.....	397	488	924	510	809	591	224	345	464	500	493	526
653 Public assistance (excluding medical care for the aged).....	1,558	1,797	1,969	2,061	2,147	2,331	2,631	2,786	2,827	2,797	2,942	3,036
655 Economic opportunity programs.....	---	---	---	---	---	---	---	---	211	1,018	1,580	1,860
659 Other welfare services.....	216	234	284	304	327	382	423	466	513	736	1,109	1,114
Total, health, labor and welfare.....	2,631	3,042	3,841	3,650	4,200	4,481	4,715	5,381	5,797	7,574	10,389	11,304
700 Education:												
701 Assistance for elementary and secondary education...	174	189	259	327	332	337	392	404	418	1,368	1,827	2,000
702 Assistance for higher education.....	110	178	225	261	286	350	428	383	413	701	451	-376
703 Assistance to science education and basic research...	46	50	106	120	143	183	206	310	309	368	395	455
704 Other aid to education.....	108	124	141	156	181	207	219	241	405	397	631	737
Total, education.....	437	541	732	866	943	1,076	1,244	1,339	1,544	2,834	3,304	2,816

800 Veterans' benefits and services:													
801 Veterans' service-connected compensation.....	1,876	2,024	2,071	2,049	2,034	2,017	2,116	2,158	2,176	2,221	2,298	2,427	
802 Veterans' non-service-connected pensions.....	950	1,037	1,152	1,265	1,532	1,635	1,698	1,743	1,864	1,910	1,931	2,037	
803 Veterans' readjustment benefits.....	977	1,025	864	725	559	388	-13	113	-50	-664	510	-42	
804 Veterans' hospitals and medical care.....	801	856	921	961	1,030	1,084	1,145	1,229	1,270	1,318	1,389	1,471	
805 Other veterans' benefits and services.....	266	242	280	266	259	279	240	249	235	238	266	231	
Total, veterans' benefits and services.....	<u>4,870</u>	<u>5,181</u>	<u>5,287</u>	<u>5,266</u>	<u>5,414</u>	<u>5,403</u>	<u>5,186</u>	<u>5,492</u>	<u>5,495</u>	<u>5,023</u>	<u>6,394</u>	<u>6,124</u>	
Total, 4 selected categories.....	<u>7,820</u>	<u>8,797</u>	<u>10,830</u>	<u>9,904</u>	<u>10,877</u>	<u>11,309</u>	<u>11,078</u>	<u>12,132</u>	<u>12,732</u>	<u>15,778</u>	<u>20,977</u>	<u>21,267</u>	
Total, all U.S. Government administrative budget expenditures.....	<u>70,179</u>	<u>76,345</u>	<u>81,365</u>	<u>79,574</u>	<u>86,675</u>	<u>92,862</u>	<u>102,283</u>	<u>101,103</u>	<u>106,608</u>	<u>126,439</u>	<u>139,562</u>	<u>143,994</u>	
Selected categories as percent of all administrative budget expenditures.....	11.1	11.5	13.3	12.5	12.5	12.2	10.8	12.0	11.9	12.5	15.0	14.8	

#### B. PAYMENTS TO THE PUBLIC BY FUNCTION, 1957-68

Housing and community development.....	842	-319	2,141	1,440	-103	1,691	-268	1,674	908	3,425	3,918	1,814
Health, labor, and welfare.....	12,107	15,740	17,981	19,067	22,321	23,918	25,624	27,191	28,191	33,249	39,498	46,609
Education.....	439	542	733	867	945	1,052	1,214	1,299	1,497	2,780	3,333	2,738
Veterans' benefits and services.....	5,448	5,828	5,910	5,907	6,187	6,092	5,971	6,107	6,080	5,556	7,092	6,664
Total, 4 selected categories.....	<u>18,836</u>	<u>21,791</u>	<u>26,765</u>	<u>27,281</u>	<u>29,350</u>	<u>32,753</u>	<u>32,541</u>	<u>36,271</u>	<u>36,676</u>	<u>45,010</u>	<u>53,841</u>	<u>57,825</u>
Total, all U.S. Government payments to the public....	<u>80,006</u>	<u>83,472</u>	<u>94,752</u>	<u>94,328</u>	<u>99,542</u>	<u>107,662</u>	<u>113,751</u>	<u>120,332</u>	<u>122,395</u>	<u>137,817</u>	<u>160,859</u>	<u>172,403</u>
Selected categories as percent of all payments.....	23.5	26.1	28.2	28.9	29.5	30.4	28.6	30.1	30.0	32.7	33.5	33.6

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**Part II**

**MANPOWER AND EDUCATION**

## EVALUATION OF MANPOWER POLICIES

BY GERALD G. SOMERS\*

The exceptional growth of manpower policies in the United States during the 1960's has not been without its costs. The pace of this legislative development has been such that scholarly research evaluation has inevitably lagged far behind. And yet, because these programs, in their early stages, are characterized by experimentation and demonstration, a careful research evaluation is a basic requirement of their efficient growth and utilization.

Since some of the basic Federal programs, such as subsidized retraining, relocation policies, and area development programs have existed in European countries for sometime, it might be hoped that profitable lessons could be learned from the experience abroad. Unfortunately, a thorough examination of evaluative studies in European countries has produced little of value for American policy formulation.

Even in a country such as Sweden, which has long had a reputation for highly developed manpower programs, administered through a central labor market board, there has been very little effort to appraise the effectiveness of manpower policies. Indeed, even though Federal legislative policies in the manpower field have come late in the United States, the effectiveness and the thoroughness of our research evaluation appears to far outstrip that of European scholars.

A seminar held in Geneva in September 1967, in connection with the meetings of the International Industrial Relations Association, reveals the paucity of research evaluation into manpower policies in countries outside of the United States. Even though the seminar was called with the specific purpose of sharing views on manpower research evaluation, and even though the seminar was attended by persons who would be expected to be most familiar with such research in their own countries, little information emerged beyond a simple description of legislative programs. Although countries such as Sweden, Great Britain, and France are able to provide some data on the characteristics of trainees and persons who have been assisted in geographic mobility, there is no evidence of a meaningful followup to determine the subsequent labor market experience of those who have been trained and relocated. In some countries, which have a fairly well-developed program of retraining, there are not even records of the basic characteristics of the trainees. In Sweden, plans are now underway for some benefit-cost analyses of manpower policies, but there is no evidence of the completion of such analyses in Britain or any other countries outside of the United States.

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\*University of Wisconsin.

Consequently, in the effort to find guidance for the further development of our own manpower policies, we are forced to fall back on the research evaluation of early programs in this country.

Since a principal purpose of the recent manpower policies in the United States has been to improve the employment status of the unemployed, the discussion which follows is focused on this group of workers. And since the concern has turned increasingly to the most disadvantaged among the unemployed, special emphasis is given to policies designed to improve their economic position.

Although a full evaluation of manpower policies would encompass studies of the Employment Service, counseling techniques, testing procedures, labor market information systems and job development programs, the discussion which follows is restricted to an evaluation of two of the major policies featured in the recent "manpower revolution": Retraining programs for the unemployed and relocation subsidies. Since relocation policies are still in an experimental and demonstration stage in the United States and since very little is known about them, the principal emphasis will be on what we know and what we do not know about the value of occupational retraining for the unemployed.

We should keep in mind that training and relocation have been called upon by the Federal Government to help solve a variety of serious problems besetting the United States in the 1960's: the problems of depressed areas (retraining provisions of the Area Redevelopment Act, 1961); structural unemployment (Manpower Development and Training Act, 1962 and subsequent amendments); reduced tariffs (relocation and retraining provisions of the Trade Expansion Act, 1962); poverty (Economic Opportunity Act, 1964); and the growing relief rolls (retraining amendments to the Social Security Act, 1967). The attainment of jobs, higher income, and satisfaction through retraining and relocation are viewed as a contribution toward accomplishment of broader national objectives. The evaluative studies have focused on the immediate contributions of manpower policies rather than their impact on broader national goals.

#### METHODOLOGY OF EVALUATION

Much has been written about the conceptual problems and the methodological requirements of evaluation research in the training field. We have contributed to that literature elsewhere and will not do so here. However, it is necessary to establish a few fundamental ground rules. To be accorded weight in a summary evaluation, a study need not include a full-blown cost-benefit or regression analysis. We are willing to settle for much less, but the following would appear to be a bare minimum:

(1) The legislative goals, i.e., the hoped for benefits, of the program must be established.

(2) In attributing benefits to the program, the investigator should provide some evidence that these benefits would not have occurred in the absence of the program and that they would not have been achieved more efficiently in some alternative way.

Although these evaluative criteria seem to be basic, they are seldom met. The goals of the retraining programs have given rise to lengthy

debate in some quarters, but here we can simply agree that the goals of the retraining programs are to obtain jobs for the unemployed, and to move them to higher levels of self-supporting income and job satisfaction. Even though the legislation is often couched in terms of increased employment and income for the economy as a whole, rather than for particular individuals, the attainment of such national benefits through retraining is difficult to establish in an analytic model and almost impossible to estimate empirically. We can only follow the lead of most of the evaluators in making the sometimes questionable assumption that improved employment, income, and satisfaction for the trainee redound to the benefit of society as a whole.

Similarly, the immediate goal of retraining is to impart or increase occupational skills, and some would wish to measure the benefits of retraining in terms of skill acquisition. Such evaluative studies are welcome, but they are not readily forthcoming, and since employment and income gains usually reflect skill acquisition, economists, at least, are likely to use these economic variables as proxies for the aggregate of benefits to be derived from retraining. The fact that the labor-market benefits may also stem from factors other than skill acquisition—such as special counseling, job information and placement services which may be available to trainees—reduces the sharpness of the evaluation. Thus a complete evaluation of retraining would measure improvement in skill, employment, income, and job satisfaction, but if such a full-fledged evaluation has been conducted, it has escaped our notice.

In assuring that the benefits attributed to a retraining program occurred because of that program, some device must be found to control for improvements in general employment conditions and in other factors completely unrelated to training. The before-and-after-training status of the trainees must be compared with that of some other reference group. Ideally, this should be a control group similar to the trainees in every respect except for training. Difficulties in finding such control groups usually lead to a compromise on this approach and, frequently, to the complete abandonment of the control effort in favor of a simple before-after comparison for the trainees alone. Government reports on operating data are generally in this form. They inspire confidence in the claims of program benefits only when the worker's status before training was so persistently dreary and his status after training so elevated that the change could not be attributed to chance or to the improvements in nontraining variables. The followup period in most of these reports is seldom long enough to warrant firm conclusions.

Even though a basic purpose of evaluation of training programs should be an assessment of the efficiency of alternative approaches to manpower goals, little has been done on comparative studies of either costs or benefits. Since there are now at least 29 different federally supported job training programs operating simultaneously, a comparative evaluation of training variations, alone, would appear to be timely. And going beyond training, federally supported basic education programs, work experience, counseling, relocation policies, and area development policies in the same area have similar employment objectives. Special emphasis is now being given to Government-subsidized on-the-job training and to such nontraining approaches as the

concentrated employment programs and the human resources development programs in urban ghettos. Many of these varied attacks are aimed at the same target populations of unemployed and disadvantaged. Which is most efficient and effective?

As is discussed later, efforts to compare the benefits of educational programs and retraining programs for the disadvantaged are just beginning to emerge, as are evaluations of the Job Corps and the Neighborhood Youth Corps; and only two or three studies have related vocational training to geographic mobility.

The basic problems of methodology in the evaluation of retraining programs are also applicable to an evaluation of relocation subsidies. Here, too, we want to know whether the employment status, income, and job satisfaction of the worker have been enhanced by his mobility. We want to know whether he would be as likely to move and to benefit from his move in the absence of a Government program of subsidized relocation. And, finally, we want to know if the improvements in his status and the benefits to society could have been more efficiently accomplished through some other governmental program.

#### EVALUATION OF RETRAINING PROGRAMS

The most useful evaluations of training for the unemployed have focused on institutional MDTA programs and similar programs established earlier by State governments and by the Federal Government under the ARA. Reports based on operating data of the MDTA fall short of the methodological ideal, but they far surpass the data made available by the vocational education institutions or most OEO programs. A wealth of data on MDTA training has recently appeared in a report issued by Senator Clark's Subcommittee on Employment, Manpower, and Poverty. Included are follow-up data on employment status 3 months after training and income data for brief periods before and after training. These benefits are cross-classified by the trainees' demographic characteristics and previous employment experience.

The data present the benefits in a favorable light. In 1964 and 1965 the trainees had a post-training employment rate of 75 percent and 62.5 percent were in training-related jobs. OJT trainees had an employment rate of over 90 percent. The median earnings were 21 percent higher after training than before, and through January 30, 1967, the median post-training earnings were \$1.74; these results were cross-classified by trainee characteristics, and it was found that the level of post-training economic status of the disadvantaged was below average, but the improvement over their pretraining status was greater.

Although these "benefits" of retraining may be questioned because of the absence of a comparable control group (other than national changes in general employment and income), they are buttressed by a Labor Department study of the post-training experience of 784 trainees and a comparable control group of 825, with significant similarities in pre-training employment. Those who completed training had significantly better employment rates, stability of employment, and improvement in income as compared with the control group.

Although these officially sponsored evaluations are somewhat rough and ready, confidence in the findings is buttressed by an impressive number of more sophisticated cost-benefit and regression analyses of



specific MDTA and MDTA-type training programs for the unemployed. Studies by Borus in Connecticut, Page in Massachusetts, and Somers and Stromsdorfer in West Virginia found favorable benefit-cost relationships for trainees relative to control groups and other studies sponsored by the University of Wisconsin's Ford Foundation project (including those by Borus, Cain, Somers, and Stromsdorfer) produced similarly favorable findings. Thus, regression analyses by Solie in Tennessee and Stromsdorfer in West Virginia found retraining to be a major explanatory variable in the improved income of formerly unemployed workers. Chesler in Massachusetts, Weber in Illinois and Missouri, and Gibbard and Somers in West Virginia all found a variety of indications of the benefits of retraining for the unemployed.

In a more recent nationwide evaluation of 1,200 MDTA trainees and 1,060 other persons who were unemployed about the time the training courses started, Earl Main of the National Opinion Research Center found that the employment rate of "completers" was 78 percent compared with 55 percent for nontrainees and, when numerous other variables were controlled in a multiple regression analysis, that the net effect of completing training was about \$10 per week in family income.

These impressive results are even approached by evaluative studies of retraining programs for the seriously disadvantaged. Cain and Somers found that welfare trainees were more successful in leaving the relief rolls than a control group of nontrainee welfare recipients, and in a more recent detailed evaluation, Cain found a positive benefit-cost ratio for the Job Corps. Regis Walther has just reported employment gains for those in NYC programs relative to a control group.

Vocational retraining even fares well when related to other human resource programs. Ribich, and Hansen, Weisbrod, and Scanlon have found that retraining may bring about greater improvements in income than general education, especially for the disadvantaged. And McKechnie has found that retraining, when coupled with geographic mobility, enhances income beyond the level reached through retraining or mobility alone.

#### EVALUATION OF RELOCATION POLICIES

The demonstration relocation projects have not yet spawned sufficient data to permit a thorough followup evaluation. Qualitative appraisals confirm some of the accepted doctrine on geographic mobility and offer a few surprises. Although financial aid for travel and moving has induced some movement that would not have occurred otherwise, it was often not the most important factor. It was found that an opportunity for the worker to appraise the job environment and for his wife to appraise the community environment might be more crucial to successful transfer. Counseling and other assistance provided in the new locale, for adjustment of the worker to his new job and for adjustment of his family to the new community were also found to be important.

Most important of all, however, is the attractiveness and the security of the new job relative to prospects in the worker's home area. Similar conclusions have been reached in appraisals of relocation provisions under private industrial or union-management auspices, especially

those studies conducted in connection with the Armour Automation Committee.

The labor-market influences on relocation raise the most serious questions concerning the allowance system; and render benefit-cost analyses desirable in periods of changing regional and national employment conditions. Most of the initial relocatees in the demonstration projects were young (40 percent under 25) and many, if not most of them, probably could be expected to move from a depressed area to an expanding area in any case—with or without assistance. Even many older workers may feel forced to move under such circumstances. In South Bend at a time of very high unemployment following the Studebaker shutdown, approximately 150 workers out of almost 3,000 over 50 years of age who had been laid off, migrated to other areas. This was prior to the inception of the scheme of Government assistance. By the time the relocation demonstration project started in 1965, employment conditions in South Bend had greatly improved, and of the remaining older workers, clearly less mobile, only two of the over 700 considered to be eligible were relocated under the project.

Similar problems of inducing relocation have occurred in other areas as a result of the pickup in national and local employment in 1965. In two of the projects, over 50 percent of the relocatees returned home, partly because of improvement in employment conditions. This compares with an average of 20 percent who returned in other projects, the same percentage as in European experience. Under these circumstances, when other relevant variables are changing at the same time as retraining and relocation allowances are being provided, it is difficult to evaluate the impact of the relocation investment in the quantity of movement, its rationality, or its economic return.

#### CONCLUSION

Although we probably know more about the economic results of our retraining and relocation policies in the United States than is known about manpower policies abroad, there are still some very important unanswered questions:

(1) Would on-the-job training provide even better benefit-cost ratios than institutional training, and, if so, can an effective system of subsidies be developed to give employers a greater incentive to provide on-the-job training opportunities for seriously disadvantaged workers?

(2) Can the basic objectives of improved employment and income for disadvantaged workers be as effectively accomplished through counseling, job development, and improved placement services as they are now accomplished at much higher costs through vocational training programs?

(3) What is the most appropriate mix in a depressed rural area between retraining programs, relocation subsidies, and area industrial development; and what are the consequences of variations in the proportions of these programs in the total policy package?

(4) Finally, how does the passage of time and a general improvement in the economic climate affect the value of retraining and relocation policies to the worker and to society as a whole?

## THE ADMINISTRATION OF TRAINING PROGRAMS

BY F. RAY MARSHALL AND VERNON M. BRIGGS, JR.\*

The proliferation of Federal training activities during the 1960's has created considerable confusion and uncertainty about the effectiveness of these programs, the most important of which are summarized in table I. There seems to be a widespread belief that much of the more than \$2 billion being spent by the Federal Government on training programs is being wasted and that many target groups are not being reached because of gaps in the programs. This belief could be a major obstacle to the public and congressional support required to get more adequate funding for manpower and poverty programs.

This paper seeks to clarify some basic issues involved in the administration of Federal training programs and to evaluate some recommendations for improvement. We shall first examine the evolution of training programs and then discuss conceptual problems involved in their evaluation; we shall then, in turn, discuss the problems of waste, duplication, and inefficiency in program administration; outline some of the efforts that have been made to achieve coordination, and conclude with a discussion of some proposals for more effective administration.

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\*The authors are, respectively, Alumni Professor of Economics, the University of Kentucky, and Assistant Professor of Economics, the University of Texas.

TABLE I.—Outline of selected training programs

Abbreviations: DOL—Department of Labor; MA—Manpower Administration; BAT—Bureau of Apprenticeship and Training; BES—Bureau of Employment Security; BWP—Bureau of Work Programs; HEW—Department of Health, Education, and Welfare; OE—Office of Education; BAVE—Bureau of Adult and Vocational Education; DMDT—Division of Manpower Development and Training; ABE—Division of Adult Basic Education; SRS—Social and Rehabilitation Service; COMM—Department of Commerce; EDA—Economic Development Administration; OEO—Office of Economic Opportunity; and CAP—Community Action Program]

Program title	Legislative authorizations	Administering Federal agency	Target population	Program activities number of enrollees	Fiscal year 1967 number of completions
MDTA:					
Institutional.....	MDTA of 1962 as amended.....	DOL-BES, HEW-OE, DMDT.	Unemployed, underemployed, low skilled, disadvantaged, obsolescent skilled.	162,400	100,000
Part time and other skilled.....	do.....	do.....	do.....	0	0
On-the-job training.....	do.....	DOL-BES, BWP.....	do.....	75,000	32,100
Coupled.....	do.....	DOL-BES, BAT, HEW-OE, DMDT.	do.....	22,600	9,600
Experimental and demonstration.....	do.....	DOL-MA.....	Hard-to-reach, disadvantaged youth, hard-core unemployed older workers, minority groups.	(1)	(1)
Training for redevelopment area residents.....	do.....	DOL-BES, BAT HEW-OE, DMDT COM-EDA.	Unemployed and underemployed in designated redevelopment areas.	14,100	8,700
Correctional institutions.....	do.....	DOL-BES, BAT.....	Inmates of correctional institutions.....	0	0
Apprenticeship.....	National Apprenticeship Act of 1937.	DOL-BAT.....	No specific group.....	278,000	28,000
Neighborhood Youth Corps.....	Economic Opportunity Act of 1964, as amended.	DOL-BWP.....	In-school youth or out-of-school youth age 16-21 years. Low poverty families.	761,636	(1)
Job Corps.....	do.....	OEO-Job Corps.....	Disadvantaged youth age 16-21 years who need a change in environment.	41,883	(1)
Community employment and betterment (Nelson amendment).....	do.....	DOL-BWP.....	Long-term unemployed, poverty stricken adults from rural and smalltown areas.	7,968	(1)
New careers (Scheuer amendment).....	do.....	DOL-BWP.....	Long-term unemployed adults for positions in subprofessional occupations.	4,447	(1)
Special impact (Kennedy-Javits amendment).....	do.....	DOL-BWP.....	Unemployed adults and youths from below poverty level families in urban areas.	4,000	(1)
Migrant and seasonal farmworkers program.....	do.....	OEO-CAP.....	Migrant and seasonal farmworkers.....	28,000	(1)
Manpower components of community action programs.....	do.....	OEO-CAP.....	People below poverty income level.....	198,000	(1)
Adult basic education in community action programs.....	do.....	OEO-CAP.....	Over 18 years old, from below poverty income level, and with low level education.	50,000	(1)
Indian training programs.....	do.....	OEO-CAP.....	Indians over 16 years old, on Federal reservations, unemployed, poor, or educationally disadvantaged.	(1)	(1)

Research and demonstration.....	do.....	OEO.....	People below poverty level of income.....	(1)	(1)
Adult basic education.....	Elementary and Secondary School Act of 1966.	HEW-ABE.....	Over 18 years old, without high school diploma..	400,000	38,000
Vocational education.....	Smith-Hughes Act of 1917; George-Barden Act of 1946; and Vocational Education Act of 1963.	HEW-BAVE.....	No specific group.....	7,000,000	(1)
Work-study program.....	Vocational Education Act of 1963..	HEW-BAVE.....	In-school youth enrolled in vocational education.	(1) <sup>2</sup>	(1)
Vocational rehabilitation.....	Vocational Rehabilitation Act as amended in 1965.	HEW-SRS.....	Handicapped.....	139,000	(1)
Vocational rehabilitation-disability beneficiaries.	Social Security Act, as amended in 1965.	HEW-SRS.....	Recipients of social security disability benefits..	(1)	(1)
Work experience and training (title V).	Economic Opportunity Act of 1964, as amended.	HEW-SRS, OE, DMDT, DOL-BES, BWP, BAT.	Welfare recipients and others eligible for public assistance.	2 128,393	29,975
Community work and training.....	Social Security Act, as amended in 1962.	HEW-SRS.....	Parents receiving aid for dependent children....	2 13,600	(1)
Work incentive program.....	Social Security Act, as amended in 1967.	DOL-BES, BWP, HEW-SRS.	do.....	(1)	(1)
Five cities ghetto aid.....	(None).....	DOL-MA, COM-EDA.....	Hard-core disadvantaged.....	(1)	(1)

<sup>1</sup> Not applicable.

<sup>2</sup> Program is in the process of being phased out.

Source: Report by Greenleigh Associates to Public Advisory Committee on Administration of Training Programs (to be published in 1968).

## THE NATURE OF THE PRESENT FEDERALLY ASSISTED TRAINING SYSTEM

Two completely separate training systems had evolved in the United States by the 1960's. One consists of the older apprenticeship, vocational education, and vocational rehabilitation programs. Before the present decade, these systems had few full-time trainees and were narrow in focus, almost unconcerned with the economically disadvantaged, and subject to only minimum Federal standards. Similarly, they received little in the way of Federal financial assistance. In general, they represented local responses to local needs. Over the years, these training enterprises have each developed strong enclaves of supporters in and out of government.

Both vocational education and vocational rehabilitation have benefited from new legislation in the sixties. With expanded funding and broadened mandates many of the legitimate criticisms of the past are in need for reassessment. Yet, the Achilles' heel of State administration of nationally significant undertakings remains; namely, the quality and level of program operation varies widely from State to State. The performance ranges from outstandingly progressive to shockingly disgraceful.

The other training establishment consists of the remedial undertakings initiated in the last few years. They are the remainder of the programs listed in table I. Despite some initial actions to the contrary, they have focused sharply upon the training needs of the "disadvantaged." For many reasons, the institutional restrictiveness of the older programs caused neglect of concern with the needs of this group. Estimated in 1967 to exceed 13 million real or potential labor force participants, the sheer numbers of disadvantaged dictated that new training activities be created.

The new programs are financed almost entirely by Federal funds. They are creatures of the executive and legislative branches of the Federal Government. The new programs are designed as national solutions to national problems, but despite their broad significance, they too must function within local communities. The Federal Government can state the target goals and provide the financial inducements for participation but the recruitment, selection, training, and placement must be performed locally. The employment service, school system, political power structure, and private employers cannot be circumvented if meaningful longrun results are to occur. Unlike the older programs, the newer ones have yet to develop the protective protagonists in the local communities.

The two training systems have to date failed to adopt a policy of mutual coexistence. Vocational education supporters regard the new programs as a duplicative infringement upon their domain. They argue that, if given anywhere near equal funding, they could adequately meet the training needs of the disadvantaged. Similarly, apprenticeship proponents have viewed some aspects of the remedial programs with a skeptical eye. Fearing the creation of an alternate supply of skilled labor or a fragmentation of existing trades, pressure has been exerted in many localities to assure that the newer programs do not offer training in the apprenticeship trades. Preapprenticeship classes (sponsored under MDTA) have been highly selective in their course offerings. Designed to assist disadvantaged youth to reach entry

qualification levels, preapprenticeship has had a mixed reception by the apprenticeship establishment.

By the same token, the newer programs distrust the claims of the older system. Regarding their *raison d'être* as proof positive of the failures of the older system, the newer ones have concentrated their attention upon those segments of our society which have the greatest need. Unlike the older systems, the remedial programs have not been satisfied to wait for trainees to come to them but have adopted out-reach techniques to inform, encourage, assist, and—where necessary—prod participants into the programs.

Supportive services also have become a vital component of the new programs. It was recognized early in their evolution that lack of skills was only one of a constellation of forces that prevented the wider participation of the disadvantaged in the labor market. With parallel attention given to family, health, education, and transportation needs, higher participation and lower dropout rates could be obtained. The specific types and the magnitude of the supportive services vary widely. The title V programs have probably made the greatest use of these activities. Although these related services are costly, as these programs penetrate into the hard-core disadvantaged, it is certain that per capita costs will rise perceptively. With differing target groups, costs between programs are necessarily varied. For this reason, comparisons of training costs between the new programs or with older programs are exercises in irrelevancy.

Whether or not the new programs will continue to focus on the disadvantaged is a matter of speculation. In their initial stages they did not. During the early sixties, when the national unemployment rate was over 5 percent, the new programs were guilty of "creaming." They concentrated on the more accessible groups. In this sense, they served as a new kind of social insurance for the Nation. Training slots were filled with semitrained people whose alternative was unemployment. The disadvantaged did not have a choice. They, as in the past, were excluded by neglect. But as the national unemployment rate has declined in recent years, interest by the new programs has turned increasingly toward the disadvantaged. With unemployment rates below 4 percent, there were few others to accommodate. The semiskilled were able to find jobs on their own. The disadvantaged could not or—without stimulation—would not. Thus, the business cycle has had a notable effect upon the composition of the clientele served. Whether or not the current interest in the disadvantaged is permanent remains for the next dip in the business cycle to prove. But it is clearly time to pause and evaluate manpower policies as well as to clarify the relationships between manpower, welfare, and economic policies.

#### CONCEPTUAL PROBLEMS

Because there has been a rapid proliferation of training programs in a relatively short period of time, an evaluation of their effectiveness requires a clarification of several conceptual problems. One of the most important of these is the need for a national manpower policy which would relate manpower policies to economic and social policy and which would clarify the relationships between training and other manpower programs. A study of Federal training programs indi-

cates that although a systematic policy might be evolving, Congress has responded to ad hoc needs and really has not been guided by any well-defined policy.

There have been many reasons for this fragmented proliferation of programs. One is the pragmatic and specific approach which Secretary of Labor W. Willard Wirtz has summarized in these words:

This has been a process of constant legislative response to administrative experience. So that not in general terms but in very specific terms, as experience has developed a new need, there has been a response to it.<sup>1</sup>

Another very important cause of program proliferation has been the belief by many poverty and civil rights groups that the established manpower system in the United States was not responsive to the needs of the disadvantaged. The poverty programs, for example, bypassed the States partly because of a conviction that many State governments were controlled by conservative economic interests who were not sympathetic with Great Society programs. Conservatives are more likely to see the costs of these programs than they are the benefits. It is not surprising that civil rights leaders should have been reluctant to agree to the administration of these programs by Southern States controlled by avowed segregationists. Similarly, the State-controlled employment services were avoided by the sponsors of many of these programs, even though they are the logical focal points for any manpower program, because they were considered to be more responsive to the needs of employers than to workers seeking jobs. Most State employment offices also had a very unfavorable image among Negroes because they either practiced or permitted discrimination. In short, antipoverty forces felt that poverty was caused and perpetuated by the existing political and economic power structure, and therefore felt that better opportunities for the disadvantaged could be had only by creating agencies to combat and compete with existing agencies.

Proliferation also has been fostered by the traditional structuring of committees in the Congress and departments in the Federal Government. Congressmen and Senators with power on key committees, and with organized constituencies among various training, civil rights, and poverty groups, are interested in seeing to it that the corresponding executive departments get budgets and functions. And bureaucrats obviously have an equal interest in protecting their agencies.

The changing targets of manpower legislation also have caused proliferation of training activities. The most extensive program in terms of dollar expenditures—the Manpower Development and Training Act (MDTA)—is a good example. When passed in 1962, it was designed primarily to help retrain those workers who were faced with obsolescence of their present skills. It made no provision for the correction of educational deficiencies; only a token amount of its funds could be used to assist youths (under 22 years of age); and there no supportive services were provided. By 1967, the target group was the “disadvantaged worker.” Sixty-five percent of MDTA funds were to be expanded on this constituency. While defying an exact definition, the

<sup>1</sup> Testimony of Secretary of Labor W. Willard Wirtz, *Hearings* before the Subcommittee on Employment, Manpower and Poverty of the U.S. Senate Committee on Labor and Public Welfare, 90th Cong., 1st sess., pt. 19 (Washington: Government Printing Office, 1967).



disadvantaged include the long-term unemployed, those with low levels of educational attainment, and those with low family incomes. Their ranks are swollen with the illiterates, those in poor health, the unmotivated and hostile, the unskilled, those with little or no work experience, and a disproportionate number of Negroes, Spanish-speaking Americans, and Indians. To adjust to these client groups, it has been necessary to amend the MDTA several times and to add a host of related legislation. In fact, by late 1967 at least 28 job-training programs were in existence, administered by 17 different Federal agencies, and authorized by 11 statutes.

#### NEED FOR A NATIONAL MANPOWER POLICY

There are obvious needs to coordinate the manpower, economic, and welfare needs which must be considered in solving the Nation's poverty and manpower problems. For example, a major economic policy, enunciated in the Employment Act of 1946, commits the Federal Government to measures to maintain full employment. The traditional approach to this economic policy has been to rely primarily on monetary and fiscal measures to produce desired changes in income and employment. But the experiences of the 1960's make it abundantly clear that it will be very difficult to achieve and maintain full employment through monetary and fiscal policies alone, especially if we wish to avoid inflation and draw various disadvantaged groups into meaningful jobs. Manpower programs must therefore form an important supplement to traditional economic policy. Monetary-fiscal policies operate primarily to influence aggregate demand, while manpower policies influence the aggregate supply of workers. By removing labor bottlenecks, an active manpower policy could make it possible to achieve lower levels of unemployment without inflation and would facilitate the reduction of the pockets of hard-core unemployment which respond very slowly to changes in aggregate demand.

Manpower programs attempt to supplement full-employment measures by matching workers to changing job requirements. This requires an effective job information and projection system as well as training and retraining programs to give the necessary skills to disadvantaged groups. Our evolving training policy—which is only one part of the total manpower policy—seems to be that citizens should have an opportunity for training in accordance with their abilities regardless of race, creed, color, age, sex, religion, region, or economic status. It is readily apparent that just as policies to reduce unemployment by changing aggregate demand would be more effective if taken in conjunction with effective manpower programs, manpower programs will be more effective if aggregate demand is adequate. These programs are therefore complementary and not competing.

Education and welfare policies obviously also have an impact on manpower programs. Because basic education is required for the acquisition of most work skills, education is clearly related to training. Moreover, an effective continuing education system at all levels of education and for all age groups is necessary to meet the education and training needs of a dynamic industrial economy. Vocational education, in particular, should be closely related to both education and manpower programs, but in practice has not been close enough to either.

Too many school systems regard vocational education as a dumping ground for students who are not doing well with academic subjects. Since most skill-training programs have academic prerequisites, inferior education causes the disadvantaged to fall further behind in the economic race.

Manpower policies must also be coordinated with welfare programs. It becomes increasingly obvious, as we acquire more experience, that a major impediment to the participation in training and retraining programs by the disadvantaged is the absence of supportive services which middle-class Americans take for granted. These services include adequate health, transportation, child care, income maintenance, psychiatric care, guidance, and other activities. Actual and recommended programs which ignore these supportive needs are likely to have only limited effectiveness. For example, there is an assumption that the provision of adequate incomes through the negative income tax or some other income-maintenance system would eliminate poverty and provide an alternative for welfare programs. The argument is that the poor are obviously poor because they do not have money, so giving them money will solve their problems. It is our view that this approach is far too simple and inadequate. The modest incomes likely from a negative income tax will not insure the acquisition of the necessary services by all those who have been trapped for generations by the poverty cycle. This is true in large measure because many poor people would not acquire the services if they had the income. Because of the ravages of years—even generations—of poverty, discrimination, and second-class citizenship many of the hard-core unemployed (or, more properly, unemployable) will require considerable counseling, guidance, and material assistance before they acquire the necessary motivations to participate in training or education programs. Because of the feelings of inferiority enforced upon minorities, many of them must be made to believe that they have the ability to be trained for productive employment.

Even if we assume that money alone would solve the poverty problem, it would probably be wasteful and expensive to have a negative income tax structure which would give the poor large enough incomes to keep them above the poverty level. Any general program which ignores specific causes of poverty runs the risk of not meeting specific needs and giving too much to people who really don't need help. Welfare policies must therefore continue for those who are unable for various reasons to earn incomes large enough to raise them out of (and, more important, keep them out of) poverty. It is our belief that welfare policies should be geared to specific groups and kinds of problems and that simplistic general schemes are not likely to provide adequate substitutes for welfare programs. Resources can probably be better used by concentrating them in areas which are most likely to produce results or where the need is greatest, though these obviously might be conflicting goals. Although we think the present welfare system needs some drastic improvements and redirections, we are persuaded that improvements should be made in the present system before general income maintenance schemes are adopted.

Regardless of the particular shape of our welfare policies, however, manpower programs could be more effective if there were realistic programs to care for those who are unable to work. An effective welfare-

system might make it possible for young people to weigh the alternatives more carefully and might obviate the present tendency for the poor to be forced to select programs which yield relatively high short-run returns at the expense of long-run earnings. A child allowance program, for example, might be designed to reduce the high school dropout problem, permit teenagers to acquire greater capacities for training, and reduce the teenage unemployment problem. Welfare programs also might be designed to get welfare recipients off welfare rolls and into a training program.

#### THE CONFUSION OF PROGRAM OBJECTIVES

Of course, programs like the OEO title V work and training projects are designed to accomplish this objective, but a major conceptual problem with many of these programs is that welfare, economic, and manpower policies are confused in one program. Thus, the Neighborhood Youth Corps (NYC) and the work and training program under title V of the Economic Opportunity Act, are both welfare *and* training program. The NYC is really an income maintenance program and provides little training. This does not mean that it is a "bad" program, but this might mean that it is a bad training program, and might be a bad welfare program. Welfare and manpower policies obviously are needed, but attempting to mix these objectives in an existing program greatly complicates the task of careful evaluation. Moreover, to the extent that such programs are based on the performance of questionable work, they obviously do not create proper attitudes toward work or training in the minds of young people.

We do not mean by the foregoing that we think either possible or desirable to completely separate such things as guidance, counseling, and motivation from training, because these obviously are integral parts of training. But we do think it desirable to separate training from income maintenance and programs to solve family and psychological problems. These nontraining activities might be necessary prerequisites to training, but their costs should be determined separately. However, if it were not possible to gain acceptance for welfare programs except by disguising them as training, we would support the disguised procedure, but it should be clear to evaluators that they are dealing with welfare and not training programs.

#### INADEQUATE EVALUATION TECHNIQUES

Of course, our appraisal of training programs would not be easy, even if they did not have mixed objectives, because many other conceptual problems complicate evaluation. Program objectives can be assumed to be those fixed by Congress, but how do we measure program results? For example, is measurement to be made in terms of income? If so, over what period? It is also important to specify the entity deriving the benefits from the program. If we specify the individual or the family we are likely to reach one conclusion, but if we concentrate on the people in a geographic area we might reach a different conclusion. Even if we agree on the entity, we have problems of holding constant all things other than training while we ascertain how much more trainees earned as a result of the training than they

would have without it. We obviously cannot evaluate the program in terms of before-and-after comparisons, as is frequently done because other things, like improved economic conditions, might have raised the trainee's income even if he had not taken the training. But, as Weisbrod points out, " \* \* \* if one wishes to evaluate the benefits of a training program there is no analytically valid way to avoid making assumptions about what would have happened to the trainees if the program had not been available to them."<sup>2</sup>

Evaluation is also complicated by the absence of effective yardsticks of measurement between different programs. We have no technical way of deciding, for example, which of two objectives should be followed. Benefit-cost techniques have had a little value in telling us something about the economic returns (if we grant all of the assumptions) to a particular program, but they give us very little guidance in selecting alternative objectives. From nonquantitative points of view, for example, it might be better to select a program for the aged which had a low benefit-cost ratio in preference to a program for teenagers which had a high ratio. Indeed, a good case can be made that few training programs should be designed specifically for younger teenagers, who really might need to mature and get educated rather than to get trained for jobs.

In spite of these difficulties, however, it is important to try to evaluate programs in terms of economic efficiency and to determine whether or not they are achieving the objectives for which they were adopted.

#### ADMINISTRATIVE EFFECTIVENESS

The kind of appraisal contemplated by the remainder of this paper is not an evaluation in terms of economic or educational effectiveness, both of which are very important, but in terms of administrative effectiveness. In other words we will not be concerned with whether or not the programs are efficient in terms of the benefits derived from the costs incurred or whether effective training techniques are being used, but will be concerned with the effectiveness of the administrative structure itself. These concepts are related, but need to be separated for conceptual purposes. Moreover, a rationalization of the administrative structure is a necessary condition to the evaluation of the economic benefits and costs of the programs.

In view of the need for local implementation of national policies, an effective manpower policy obviously requires the coordination of efforts between various levels and agencies of government and between governmental and private agencies. Much confusion presently results from the assignment of similar tasks to different agencies of the Federal Government and to the sharing of responsibilities between Federal, State, and local governments. This proliferation not only creates confusion, but also makes it difficult to ascertain whether or not all needy groups are being reached. Moreover, proliferation permits wasteful duplication of overhead, wasteful use of resources by creating unnecessary delays in reviewing and funding programs, produces rivalries (with competing constituencies) between the various

<sup>2</sup> Burton A. Weisbrod, "Conceptual Issues in Evaluating Training Programs," *Monthly Labor Review*, October 1966, p. 1092.

agencies administering the programs, creates irritation by employers who are called upon by competing governmental agencies to perform the same functions, might cause funds to be channeled disproportionately to "operators" who understand the system rather than to the people for whom the programs were designed, and makes it difficult to evolve comprehensive local manpower programs.<sup>3</sup>

It can be argued, of course, that there is no need to coordinate training programs because the problem is exaggerated, or because positive benefits are derived from competition among programs. The argument that the problem is exaggerated rests on two main lines of reasoning. The first holds that existing efforts at coordination have been successful and that the problem has been solved. A second line of reasoning holds that the proliferation of programs creates so much confusion that people reach the erroneous conclusion that an effective job is not being done. As noted earlier, in the most technical economic sense of that term, we have very little knowledge of the effectiveness of these programs. There is merely an assumption, based largely on unsophisticated analyses, that society and the many people who have gone through these programs have derived benefits which exceed the costs. The benefit-cost studies that have been made seem to support this conclusion, but the authors of these studies are the first to concede that the techniques used are still far too crude to permit precise answers. Ignoring the costs, there can be little doubt that the programs have done some good. But this is not the relevant question. The important point for our purpose is whether or not these duplicating and confusing programs have caused waste, and there is in fact almost unanimous support for the conclusion that they have. Levitan and Mangum provide some evidence of the waste and inefficiency in the administration of these programs.<sup>4</sup> In addition, the departments involved in creating CAMPS acknowledged that "concern is frequently voiced about duplication and gaps in the totality of services offered. The intended beneficiary may be at a serious disadvantage in locating that program best suited to his individual needs while many of the neediest are not being serviced."<sup>5</sup>

The inefficiencies of the present system also have been acknowledged in numerous conversations which the writers have had with officials who administer these programs. The present funding cycle, for example, is universally acknowledged to be a source of inefficiency because it creates uncertainties, makes it difficult for the agencies to recruit and train competent staffs and impedes the formulation of comprehensive training plans. This latter problem is a very important impediment to effective programs because comprehensive local planning is necessary to prevent waste, duplication, and inefficiency and in order to facilitate the smooth flow of disadvantaged workers into suitable training programs and then into jobs. Conflicting conceptualizations of programs at different administrative levels also promote misunderstanding and dissatisfaction, as does the creation of new programs to compete with those already funded through other

<sup>3</sup> For a detailed analysis see: Sar A. Levitan & Garth L. Mangum, *Making Sense of Federal Manpower Policy*, Policy Papers in Human Resources and Industrial Relations, No. 2, the National Manpower Policy Task Force and the Institute of Labor and Industrial Relations, the University of Michigan and Wayne State University, 1967.

<sup>4</sup> *Ibid.*

<sup>5</sup> CAMPS, Interagency Cooperative Issuance No. 1, Mar. 3, 1967, p. 3.

agencies. These complaints have been voiced by officials at every level of government.<sup>6</sup> Although the extent of administrative inefficiency probably is exaggerated to some extent, the existence of waste is too obvious to require sophisticated proof.

It might also be argued, of course, that the confusion and waste accompanying these new programs exaggerate the nature of the *permanent* problem, because waste is inevitable in experimental programs such as these. There is much truth in this argument, but it is equally true that the lack of a rational manpower system will become increasingly important as these programs are more adequately funded. Since the present funding of these undertakings probably permits them to reach less than 10 percent of the target populations, it is possible to have considerable duplication which is not necessarily wasteful in terms of giving the same services to the same people. (Of course, even this duplication would be wasteful if the release of duplicating administrative costs made it possible to reach more people.)

#### EFFORTS TO ACHIEVE COORDINATION

A key facet of administration of the existing programs is the degree to which they are coordinated with one another. To the extent that they are not properly orchestrated, efficiency of operation is sacrificed. The need for coordination was, therefore, recognized early in development of training programs. Aside from the hortatory expressions contained in most of the statutes, tangible manifestations of a desire to dovetail programs appeared almost simultaneously with the trend toward program proliferation. On April 15, 1964, Executive Order 11152 created the President's Committee on Manpower (PCOM). Consisting of representatives of 17 agencies, PCOM is chaired by the Secretary of Labor. Although its initial functions were somewhat vague, one of PCOM's earliest assignments was to study the degree to which coordination of program effort between the various agencies was an issue.<sup>7</sup> In early 1966, 17 special three-man teams [consisting of one representative each from the Department of Labor (DOL), the Department of Health, Education, and Welfare (HEW), and the Office of Economic Opportunity (OEO)] were formed. PCOM teams were sent into 30 cities. They spent 6 months in the field during which time they succeeded in: (1) bringing together—often for the first time—the officials of the various local manpower agencies whose decisions affect manpower training in the community; (2) examining ways of expediting project proposals through the maze of adminis-

<sup>6</sup> The head of the Oakland California Skills Center told us that "Any legislative program to unify program responsibility would be an improvement." The Midwestern Governors' Conference in August 1967 complained of the proliferation of manpower programs and passed a resolution calling on Congressional delegations "to encourage and strengthen coordination of all Federal programs in the area of manpower and human resources development in a concentrated effort to insure effective coordination of all such programs at the State level." Jonathan Spivak, writing in the *Wall Street Journal* (July 13, 1967, p. 16) contends that in spite of the obvious need for such programs, " \* \* \* there is creeping concern in Washington and the big cities that Federal job-training endeavors are bogged down in a morass of unmanageable administrative machinery, miss their targets, overlap and duplicate their efforts, provide insufficient education and other personal aid essential to the poor's long-term progress, and—even if effective—fail to lead to permanent employment." We could cite numerous examples, but they are unnecessary to show that the proliferation of programs has created considerable confusion and that is a pervasive belief that this proliferation creates waste and inefficiency.

<sup>7</sup> In 1966, PCOM was assigned by legislation the responsibility for coordination of training programs. (Sec. 611 of the Economic Opportunity Act, as amended.)

trative hurdles; and (3) transmitting back to the higher echelon of officials in Washington the nature of problems in the field.

Although the PCOM city reports were never made public, it is known that in many localities the worst fears concerning the lack of effective coordination were realized. Yet, in fairness, it should be said that many of the programs were in their infancy. There were no precedents for these undertakings; hence, there was little experience available in the form of either past practice or seasoned personnel. With congressional critics demanding immediate results in overcoming decades of compounded social miseries, program administrators were forced to focus upon immediate operations. Little time was available to see if everyone was in proper step.

In response to a ground swell of criticism over the congruency of the system, Congress established a public advisory committee in 1966 to offer an impartial judgment. Known as the Committee on Administration of Training Programs (CATP), it was instructed “\* \* \* to determine if there is waste, duplication, and inefficiency in administering these programs as many individual programs \* \* \*”;<sup>8</sup> the final report of CATP is due in early 1968.

To return to the PCOM experience, having made its report in November 1966, plans to extend and to expand the team activities into 1967 were suddenly shelved. In place of the interagency team approach, it was announced that two new administrative arrangements would be created. They were the cooperative area manpower planning system (CAMPS) and the concentrated employment program (CEP).

CAMPS is a project that seeks to bind together the planning activities of the major Federal agencies involved in the administration of training programs.<sup>9</sup> The arrangement sprung from efforts begun in 1966 to create a National-State plan for administering training under the Manpower Development and Training Act (MDTA). The objective was to realize through interagency cooperation the maximum possible return from the resources available from a single piece of legislation. It was a logical progression to enlarge the undertaking to include the related programs of other agencies. Thus, in early 1967, CAMPS was launched.

Under the CAMPS arrangement, five participating agencies plan the coming year's activities in concert. Information is exchanged on the needs of target groups, anticipated program resources, and mutual program provisions available to meet the needs of client groups. CAMPS also has a line organizational structure. There is a local area body in designated metropolitan areas; 50 State bodies; 11 regional bodies (which includes all 50 States); and a national body that meets monthly in Washington. At each rung, a written manpower plan is developed and forwarded up the ladder for annual approval.

On paper, CAMPS is encompassing in composition and logical in design. In practice, much remains to be demonstrated before any judgment can be made. Mutual planning is not a *per se* assurance that

<sup>8</sup> Amendment 32 of Conference Report 2331 of U.S. House of Representatives accompanying H.R. 14745 which became Public Law 89-787.

<sup>9</sup> The agencies are (1) the Department of Health, Education, and Welfare (the Office of Education, the Vocational Rehabilitation Administration, and the Welfare Administration); (2) the Department of Commerce (the Economic Development Administration); (3) the Department of Housing and Urban Development; (4) the Department of Labor (the Manpower Administration); and (5) the Office of Economic Opportunity.

coordination will occur. There is no mechanism to assure that written agreements will be implemented in a nonduplicative and efficient manner. It would seem that all that is needed to perfect CAMPS would be to empower it to enforce its mutual agreements. Yet, such a simplistic notion neglects the fact that it is legally and politically impossible for one agency to be bound to the wishes of others.<sup>10</sup> As a result, mutual consent is its only weapon and voluntarism among Government agencies in American history affords little grounds for optimism.

As for CEP, it also is too new to be assured of the results that its proponents proclaim. It was inaugurated in the spring of 1967. Twenty cities and two rural areas were designated as CEP targets. It is anticipated that the 63 model cities recently announced by the Department of Housing and Urban Development (HUD) will each become a CEP city. In a nutshell, CEP is an arrangement by which six training programs administered by the DOL are bundled together and offered to a locality in the form of a single contract tailored to its specific needs.<sup>11</sup> Typically, the OEO designated community action agency is the local CEP sponsor. CEP, obviously, is not a training program but an administrative project. Since it includes only the programs with which DOL has control, the issue of coordination of these six programs in a city is sharply reduced. The problem of coordination with the programs not included in the CEP project remains as does the entire issue in non-CEP localities. Presumably, however, if the arrangement proves viable it will be replicated on a more extensive scale.

There remains another indication of a movement toward coordination through consolidation. Namely, there has been a pronounced trend toward program delegation. Instead of operating a program which it has been legislatively assigned, the agency delegates the administration to another while still retaining the right to participate in the planning and target-setting procedures. Specifically, the Neighborhood Youth Corps, Special Impact, Operation Mainstream, and New Careers which were originally assigned to OEO have been delegated to DOL for administration. The title V program was similarly delegated from OEO to HEW; but in 1967 it too was shifted to DOL. A related instrument of consolidation has been legislative transfer of new programs to old line agencies. For example, the adult basic education program was originally an OEO delegated program to HEW but in 1966 it was legislatively transferred to HEW.

Early in 1967 representatives from DOL, HUD, and OEO were convened as a joint staff committee to conduct an examination of the application process for the establishment of a multipurpose, neighborhood center in Chicago. The findings of this group disclosed that each agency had its own approval system, which required as much as a year to complete.

As an outgrowth of this staff report, the White House issued a memorandum on May 11, 1967, on the subject "Reduction in time in processing program applications." A joint administrative task force was constituted which was composed of the assistant secretaries for administration of each of the four agencies. The memorandum directed

<sup>10</sup> At the time of this writing, however, there is a bill (H.R. 12631) pending before Congress which would greatly simplify the administration of jointly funded projects between different Federal agencies.

<sup>11</sup> The six programs are: MDTA-institutional; MDTA-OJT; Neighborhood Youth Corps, New Careers, Special Impact, and Operation Mainstream.



that "the task force should aim to reduce by at least 50 percent the time it now takes to process applications." Four subcommittees were formed and each has made an intensive study of the programs it was assigned. Specific recommendations have been made by each group but they are not public documents. The details are not of consequence for present purposes; the fact that there was need for such a program is. The diversity in funding channels, approval procedures, and application forms is the byproduct of a manpower system whose geography consists of a string of independent islands rather than a single land mass.

There have been numerous other coordinating proposals and coordination bodies. The Economic Opportunity Council, the Labor-HEW Coordinating Committee, the Interagency Review Committee for MDTA—Redevelopment area projects are a few examples of continuing efforts to seek the elusive goal. The fact is, however, that the objective has not been obtained. Indicative of this fact is the conclusion reached by U.S. Senate Committee on Labor and Public Welfare which reported in September 1967 the result of its exhaustive inquiry into the war on poverty:

The most meaningful level for coordination is the local community where the unemployed live and work. Yet, a community has a great difficulty in putting together a total manpower system. Some of the Federal program funds go through the States in a variety of special programs—work experience and training, MDTA, the Employment Service, apprenticeship training, vocational education, and vocational rehabilitation. Others go directly to the community, but usually in separate grants—Neighborhood Youth Corps, Nelson amendment, Scheuer amendment, special impact, and various projects financed under community action program.

Of the various unsolved problems in the Federal effort to eliminate poverty in America, coordination stands out. And of all the fields of service, the manpower program is the most badly fragmented and needs the greatest attention.<sup>12</sup>

Thus, the verdict is in. The manpower system has been accused and found guilty of a failure to achieve coordination in its program operations. The creators of this system must now decide the sentence to be imposed.

#### SOLUTIONS

Many solutions have been advanced for the problem of administering manpower programs. Some of these suggestions have wide support and others are more controversial. For example, measures to improve the funding cycle by making grants for longer periods and permitting greater flexibility in transferring funds between agencies and programs would receive wide support. It also would be highly desirable to simplify and streamline the funding process in order to reduce the number of steps and the time required to process applications. To the extent possible, information and forms should be standardized.

<sup>12</sup> "Economic Opportunity Amendments of 1967," *Report of the U.S. Senate Committee on Labor and Public Welfare on S. 2388, 90th Cong., 1st sess.* (Washington: Government Printing Office), 1967, pp. 27-28.

The suggestion that flexibility be introduced by making unrestricted (block) grants by the Federal Government to State and local governments is more controversial, because of the fear that these governments would revert to (or continue) their habit of ignoring the disadvantaged. Nor is there any assurance that State and local governments would not themselves be paralyzed by political stalemates which would complicate the implementation of comprehensive training plans.

The argument in favor of block grants to local governments is that the Federal Government's role should be mainly to finance manpower projects and set broad policy objectives, but that the implementation should be by State and local governments.

We favor longer term grants to agencies who demonstrate their ability to undertake effective programs, and would like to see more flexibility in the ability to transfer funds from program to program. It also would seem desirable to have funds held at the State level which could be used to meet the emergency needs of promising programs. We would permit grants to State and local governments to be used more flexibly only where minimum safeguards were established to insure the use of the funds in conformity with national policies and where the Federal Government retained the right to act where local governments default in their responsibilities.

Another controversial recommendation proposes the federalization of the Employment Service in order to make it a more effective manpower agency. The present State control of the Employment Service makes national coordination very difficult. The effective administration of many States systems is also complicated by low salaries, which make it difficult to recruit and retain competent personnel. The low salaries of State employees who have responsibility for (or more responsibility than) cooperating Federal employees also complicates the adoption of comprehensive manpower plans where Federal-State cooperation is essential. Greater national control would facilitate the enforcement of national standards at the State level and would encourage better research and labor market information and reporting activities.

A number of arguments might be raised against greater national control of the employment service. Some, of course, will object that this would be a further Federal encroachment on States rights. A more serious objection is that greater Federal control would involve some complications because of the diverse State unemployment compensation systems.

We feel that political realities are such that the States should be given greater voice in the administration of these programs, provided there is a presumption that minimum Federal standards will be observed. But it seems perfectly plausible to have greater national control of the employment service while the unemployment compensation systems remain under State control. Indeed, the present salary and personnel differences between the States make little sense because the administration of these State-controlled systems is presently financed entirely by the Federal Government. We are strongly convinced, moreover, that it will be very difficult to have a rational and coordinated national manpower policy which does not include a standardized employment service with well-trained personnel as an integral part.

Other suggestions to solve the administrative problem take an incrementalist approach and suggest improving existing coordinating machinery rather than drastic reorganization. For example, OEO officials feel the delegation of authority by that office to one or another Federal agency is one effective way to coordinate these programs because it gives the OEO a voice in the training programs administered by the Labor Department or some other agency. Although the significance of the power of delegation is far from clear, since it would be very difficult to transfer delegated authority from one agency to others, we can see some merit in this approach and would not disturb it.

Some observers also argue that the CAMPS system can be strengthened to make it an effective coordinating mechanism and avoid the problems associated with drastic reorganization. Some suggest such things as: giving the State CAMPS power to fund projects as well as to plan them; giving the State CAMPS unrestricted funds to be used for emergencies; making State CAMPS repositories of information on manpower programs; and giving State CAMPS greater flexibility in diverting funds from one agency to another.

The major objection to these suggestions is that they contemplate greater reliance on the State CAMPS, which, it is argued, cannot be relied upon to carry out national policy since they are composed of State officials. We feel that this objection has considerable validity, but think the suggestions nevertheless have merit. For one thing, the number of States which would not use the funds effectively is not as great as it once was. Moreover, much opposition to manpower programs has been generated by efforts to bypass the States. We therefore feel that the States should be incorporated more effectively into national manpower policy planning and implementation but that safeguards can be adopted to prevent States from avoiding national policies. Even if these safeguards could not be adopted, we feel that the gains to be had from going through the States far outweigh the losses.

While there are many other specific things that could be done to improve the coordination of Federal training programs, the most controversial calls for the incorporation of all manpower programs in a single agency. Levitan and Mangum, who have studied manpower programs in considerable detail, have made one of the most widely discussed reports recommending the collection of all manpower agencies in a single agency, preferably the Department of Labor. Although Levitan and Mangum suggest several other alternatives, any of which would permit a workable manpower policy, including improving coordination and increasing congressional oversight, they prefer the single agency approach because it offers a more fundamental solution. One of these other suggestions is that Congress might provide more oversight, but Congress has not done an effective job overseeing these programs because it has lacked the staff and, therefore, has relied heavily on executive agencies for data and program evaluation. Levitan and Mangum realize that a single agency would not solve the coordination problem, but they feel it would force Congress and the administration to examine the interrelationships and to confront the problem more squarely than they have previously. By absorbing the budgets of existing programs, a single agency could eliminate duplication and expend funds more economically. This agency would have fewer and better

personnel and would make possible the successful application of the planning-programing-budgeting system.

Within a single agency, Levitan and Mangum would divide manpower programs into four functional categories: Preparation for employment; placement and supportive services; job creation; and experimentation, demonstration, and research. They would combine the following programs in their manpower agency:

- (1) Programs now under the Manpower Administration of the Department of Labor;
- (2) The job creation and training programs authorized by the Economic Opportunity Act;
- (3) Vocational education;
- (4) Vocational rehabilitation; and
- (5) Manpower research activities of the Bureau of Labor Statistics.

As might be expected, a number of objections have been raised to the Levitan-Mangum proposal, especially by some OEO officials, who argue that it would emasculate the OEO in the name of administrative order. In this view, a neat organization chart is a less desirable objective than an effective and viable program. Moreover, it is argued, the OEO should continue to have some control over training programs, because the poor need to be represented. OEO officials point out that before that organization came into existence, traditional manpower organizations ignored the poor. The OEO, therefore, sees its job as one of challenging the establishment to force it to adopt policies for the poor.

There is obviously much truth in the OEO argument. We think, however, that these officials overstate their case in the sense that they give the OEO too much credit for what has happened. It cannot be seriously argued that economic development and the operation of traditional manpower organizations did nothing to reduce poverty, because there has obviously been a long-range tendency for poverty to decline. We do agree, however, that poverty programs were necessary because these other tendencies were too slow. Actually, moreover, the poverty and newer manpower programs owe a great deal to the civil rights movement, which has shaken most political and economic organizations. Although the poor might be more effectively represented in manpower programs with the OEO looking over the Labor Department's shoulder to keep it honest, it seems reasonable to assume that the civil rights movement will itself continue to force the Labor Department to do more for the poor in general and Negroes in particular. It is becoming increasingly evident, moreover, that the States will take a stronger role in manpower and poverty programs; when they do, a single agency might actually be in a stronger position to represent the interests of the poor than the OEO. This might be particularly true if the single agency had a *quid pro quo* to offer the States for their cooperation on poverty programs.

As noted earlier, however, we feel that the OEO should have a voice in manpower programs, whether or not Congress sees fit to put all manpower programs in one agency. But we feel that the OEO's role should be restricted primarily to participation in the formulation of national policy through the delegation agreements and that the manpower agency should have complete freedom in selecting local pro-

gram sponsors. We do not feel that such a policy would emasculate the OEO, because it still has many other functions to perform.

It might also be argued that a single agency really would not eliminate administrative chaos, but would actually create additional confusion by establishing still another manpower agency. The single-agency bureaucracy would create confusion, it is argued, by attempting to consolidate too many programs under one roof, making coordination extremely difficult. It also is contended that such a reorganization would involve very difficult choices between "training" or "education" programs. Critics of the single agency approach also argue that manpower policies, most of which are still in the experimental stage, should be given a chance to work before being disrupted by radical reorganization; we should not, it is argued, be like the man who keeps pulling his plants up by the roots to see if they are growing. In this view it would be a mistake to disrupt established administrative lines and develop new administrative lines just as people are learning the ropes with the existing system.

Another argument is that the present system not only promotes interagency competition, but also makes it possible to rely on the respective expertise of the DOL, HEW, and OEO. These arguments against the single agency are unconvincing. There would be no requirement that all programs be merged immediately or that hasty action be taken with respect to any of them. The need for coordination is universally conceded. A single agency would make it possible to proceed with the task of coordination in a careful and systematic way, with proper research, demonstration, and evaluation, and without the rivalry between agencies that is likely to hamper coordination efforts in the absence of a single agency. It is inconceivable that effective coordination will be achieved with the diffusion of authority and responsibility in different agencies.

Perhaps the strongest argument—other than political feasibility—against the single agency proposal is that it would destroy competition between agencies. Competition between the Departments of Labor and HEW and the OEO is supposed to have made the programs more effective. While competition obviously has its advantages, it need not be destroyed by a single agency, whose responsibility would be to coordinate finances and implement broad national policies. The most meaningful competition in manpower programs is likely to be at the local level. In principle, a single agency could provide competition between programs to accomplish existing tasks. Indeed, such an agency could promote competition between various private and public agencies as an experiment to see which kinds of agencies might do the best job under various conditions. These experiments could be much more carefully controlled by a single agency than they can by the existing complex arrangements. It is also important to avoid confusing competition to see which agency can be most effective with interagency rivalry to see which agency can get more funds and influence. Similarly, program consolidation would actually strengthen the specialization by OEO, DOL, and HEW in their respective areas. OEO and HEW would get out of the manpower field, which they acknowledge to be beyond their areas of expertise and would concentrate on other poverty and welfare programs. We would give the single agency control over adult basic education and remedial education programs, but

would encourage the attachment of experts in these fields to local comprehensive skill centers wherever feasible, and would otherwise encourage the use of local public schools. It would be much easier for a manpower agency to buy the necessary education services than it would be for an education agency to buy manpower services.

The real question, of course, is which of the existing Government organizations should become the manpower agency? Of the existing agencies, the Department of Labor would appear to be the logical choice because it is currently most actively involved in the manpower field. But from a logical point of view, it would seem much better to create an entirely new Department of Human Resource Development which would contain most of the programs outlined by Levitan and Mangum except we would add a remedial and adult education component, where remedial programs are those designed to overcome the educational disadvantages of teenagers and adults in order to prepare them for work or training. We would include continuing vocational, and remedial education in the new department because we feel that continuing and remedial education and manpower programs are closely related. We also feel that incorporating adult basic and continuing education programs in local skill centers would overcome some of the problems involved in reaching adults who need remedial education and who might be more comfortable in a skill center than they would be in adult basic education classes in a school. A Department of Human Resource Development could provide better coordination of education and manpower programs and might do a great deal to strengthen vocational education by tying it more closely to both education and employment than it has been in the past. Much of continuing and remedial education is preparation for work, and a Department of Human Resource Development could provide a broader scope for planning a comprehensive training and education system for all groups and educational levels. Education also is playing an increasing role in training employees who have completed their formal education. Much more attention needs to be given to these adult education and training programs in order to provide the educational needs of a dynamic and technically advanced society. We also feel a need to have closer relationships between industry and education, which might be facilitated by including manpower and continuing education programs in a single agency.

#### CONCLUSIONS

1. There are bound to be overlaps and administrative complexities in the administration of training programs. This is true because training programs require attention to the total needs of the individual, thus necessitating a wide blend of supportive welfare services. Training programs also interact with economic policies and must be coordinated with them.

2. The complicated interrelationships create conceptual problems in evaluating specific programs. There is a conceptual need, for example, to distinguish training and welfare programs if evaluation is to be undertaken of programs as *training* programs. The present mixture of activities in a single program complicates evaluation of training components. Although the effectiveness of programs, even where they are mixed, might be evaluated in terms of such specific objectives stated

in the enabling legislation, few training programs generate sufficient information in a form to permit sophisticated evaluation. It is, therefore, almost impossible to determine how effectively existing programs are meeting existing objectives. Other, though related evaluations of programs might be in terms of how efficiently stated objectives are being pursued in purely economic or pedagogical terms. Benefit-cost programs are designed to accomplish economic evaluation, but the use of this procedure to evaluate programs, though simple conceptually, is very difficult in specific cases primarily because of the assumptions about the benefits derived from these programs and what would have happened to trainees if they had not undergone training. Moreover, benefit-cost techniques provide only one dimension in the matrix of considerations required to select among alternative programs.

3. Evaluating the effectiveness of the administration of training programs is not the same as evaluating them in terms of cost effectiveness—although there is an obvious relationship in these types of evaluation. Moreover, an evaluation of the administrative structure of training programs need not concern itself with the appropriateness of the varieties of training programs or the objectives they are designed to accomplish. An administrative evaluation asks such questions as could the program mix and objectives stated by Congress (and taken as given) be more effectively administered? Does the administrative structure itself cause inefficiency in the use of resources or complicate the achievement of stated objectives? The administrative system would be wasteful and inefficient if we found any of the following:

(a) Resources were wasted in interagency rivalries designed to promote the survival of the agency by preventing action by other agencies to accomplish common objectives. This kind of rivalry is to be distinguished from competition between agencies to more effectively accomplish existing objectives, which obviously would not be wasteful.

(b) Duplication of administrations would be wasteful if the same work could be done by a single agency.

(c) To the extent that there are economies of scale in the operation of particular programs (a big Job Corps camp, a unified skill training center) duplication causes the establishment of uneconomical units.

(d) If administrative confusion causes gaps between programs, comprehensive training plans might be difficult to administer, thus giving trainees inadequate training, and might cause some people to be in programs for which they were not suited or to be trained for jobs which did not exist.

(e) Administrative confusion and inflexibility might also make it possible for more resources to be allocated to some activities than can be effectively used (not because there are no needs, but either because the administrative structure is inadequate or because the needy individuals have not been identified and studied as carefully as they should be before programs are inaugurated), while other effective programs fall short of potential because of inadequate funds.

(f) Complicated administrative structures also might cause inefficiency by creating so much confusion that State and local governments are forced to hire experts to help get funds. Under

this procedure, program objectives might not be achieved because funds are allocated to those who learn the system rather than to others who might be more needy.

(g) Another vertical administrative problem comes about when different political philosophies or value systems prevent different agencies from cooperating in the implementation of programs. Such political or ideological considerations cause duplicating agencies to be established or cause some State and local governments not to make effective use of available programs, even where their citizens might have greater needs than people in other areas whose States participate more fully in these programs.<sup>13</sup>

Some of the problems brought about by confused administration of these programs do not necessarily relate to waste and inefficiency in the administration of programs, but cause the programs to get less support from the public than they might. This is true because many voters, and therefore Congressmen, feel that additional appropriations for these programs would not be efficiently spent. Although there is general agreement that the financial support given present programs is far below what is needed to meet the stated objectives, it is not as clear that a massive injection of funds could be efficiently administered.

There have been many proposals for improving the administration of training programs. These range all of the way from doing nothing to creating a new Department of Human Resource Development which would combine all vocational, continuing, and adult basic education and manpower programs. It is possible to improve the administration of training and education programs without putting them in one agency, but we feel that waste, duplication, and inefficiency will continue in the administration of these programs, which far outweighs any advantages such duplication might offer, until they are brought under one agency. The most rational organization would include all education and manpower programs in one department, but including all manpower programs in the DOL would be an improvement over the existing arrangements.

The report of the Mayor's Development Team which was established following the riots in Detroit in the summer of 1967, concluded that:

There is such a proliferation of training programs that trying to achieve a comprehensive understanding of this morass is rather like trying to carry a quart of unbottled mercury in your bare hands (*New York Times*, Oct. 29, 1967).

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<sup>13</sup> Although these political and ideological clashes are inevitable, greater efforts might be made to go through existing governmental structures or agencies before competing structures are established. Training programs must ordinarily be implemented at the State or local levels or by private parties in cooperation with local government entities. On the other hand, fiscal realities are such that the Federal Government must bear heavy responsibility for financing programs or stimulating private training agencies to follow national policies. It is therefore important to encourage cooperation between State, local, and Federal Governments. This cannot be done by circumventing State and local governments. At the same time, however, if States refuse to cooperate for such reasons as racial prejudices, the Federal Government must take measures to implement needy programs in uncooperating States.



# EVALUATING FEDERAL MANPOWER PROGRAMS

BY GARTH L. MANGUM\*

Summarizing 2 years of effort in 3,500 words indicates either low output or high discipline. The task can best be accomplished in summary form with a few generalizations about the state of manpower policy and a brief evaluation of specific programs. References are given for data and details.

## A. THE NATURE OF FEDERAL MANPOWER POLICY

1. There is no Federal manpower policy in the dictionary sense: "a definite course of action selected from among alternatives, and in light of given conditions, to guide and determine present and future decisions." However, there are programs and practices which can be analyzed in aggregate and from which policy emphases can be extracted.

2. Legislation in the 1950's such as the National Defense Education Act and practices of agencies such as the Atomic Energy Commission emphasized manpower as an economic resource, with particular concern for the development of scientific and technical manpower. Spending for such purposes increased during the 1960's and now totals over \$5 billion annually. However, the focus of public manpower efforts during the 1960's shifted in another direction.

3. The thrust of the manpower programs of the past 5 years has been to aid those who face various disadvantages in competing for jobs. This emphasis is attested to more by legislative and administrative efforts and public discussion than by expenditures of less than \$2 billion per year.

## B. OVERALL CRITIQUE OF FEDERAL MANPOWER POLICY

1. The relevant manpower programs which emphasize in varying degrees services for the competitively disadvantaged are the Manpower Development and Training Act, the Vocational Education Act of 1963, the vocational rehabilitation program, and the several manpower components of the Economic Opportunity Act. The EOA programs are not evaluated in this paper since they are considered in Sar Levitan's contribution. However, they do figure in these generalizations about the state of manpower policy. In addition, the U.S. Employment Service is included, not as a program but as a major deliverer of services.

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This paper was delivered to the Industrial Relations Research Association, December 28, 1967.

2. This array of programs did not emerge as part of any systematic effort to identify and provide each of the services needed by various disadvantaged groups or by all the disadvantaged. Instead individual acts were written, considered, and amended in rapid succession to meet current crises, real or imagined, with little attention to their interrelations. Though overall objectives are reasonably clear, the objectives of some of the individual programs are not.<sup>1</sup>

3. The resources and enrollments in all of these programs are too small relative to the size of the labor force and the magnitude of needs to have had an appreciable impact on the problems they were intended to "solve." Remedial programs for the disadvantaged currently enroll an average of only 300,000 people at any point in time—this in an economy where in prosperous 1966, 2.5 million persons were unemployed 15 weeks or more, 850,000 were unemployed over half the year, 1.3 million looked for but did not find any work, 1.3 million males 25 to 64 years of age did not seek work and more than 5 million persons worked for less than the Federal minimum wage.

4. The 1961–67 period is most appropriately viewed as an experimental one during which many things were tried with varying degrees of success and failure. A positive contribution of these efforts was the identification of a number of services which have proven useful in lowering the obstacles to employment and retention of the disadvantaged. A few of these are:

(a) Outreach to seek the discouraged and undermotivated and encourage them to partake of available services.

(b) Adult basic education, to remedy the lack of obsolescence of earlier schooling and prevocational orientation to expose those with limited experience to alternative occupational choices.

(c) Training for entry level skills, for those unprepared to profit from the normally more advanced training which assumes mastery of rudimentary education.

(d) Training allowances, to provide support and an incentive for those undergoing training and residential facilities for youth whose home environment precludes successful rehabilitation.

(e) Work experience, for those accustomed to the discipline of the workplace.

(f) Job development, efforts to solicit job opportunities suited to the abilities of the disadvantaged jobseeker.

(g) Relocation and transportation assistance to bring the workers to where the jobs are.

(h) Subsidization of private employment of the disadvantaged.

(i) Job coaching to work out supervisor-worker adjustments after a job is found.

(j) Creation of public-service jobs tailored to the needs of job-seekers not absorbed in the competitive market.

5. Essential as these services are, they are available through no one program, agency, or labor market institution. The various programs are limited in the services they can offer. The budgetary commitments for the various services are not rationally related to need. For instance, there are currently more slots for work relief than for training when

<sup>1</sup>Sar A. Levitan and Garth L. Mangum, *Making Sense of Federal Manpower Policy*, Policy Papers in Human Resources and Industrial Relations, No. 2, Institute of Labor and Industrial Relations, the University of Michigan, Wayne State University, 1967.

training should probably stand above work relief in the hierarchy of remedial services.

6. The administrative capability to deliver these services has yet to be developed. At the local level, there is no single agency or combination of easily accessible institutions where those seeking help can find it. Neither has any community the resources to provide some type of service to all who need it. A multiplicity of Federal funding sources encourages interagency competition at the Federal level and a proliferation at the local level, placing a premium on "grantsmanship." Coordination has been tried with little success and consolidation of programs has been limited. Existing agencies have changed their orientation and biases but slowly and only under considerable outside pressure. New agencies have yet to learn effective practices. Surprisingly little has been done, considering the number of programs and the level of expenditures, to develop or train capable staffs at any level of government.

The currently approved model for delivering comprehensive manpower services is the concentrated employment program (CEP). It attempts to concentrate and integrate the efforts of existing programs on behalf of target populations. It appears to have two premises: (1) The complex of programs and agencies can be integrated and focused through a single local institution; (2) while sufficient resources cannot be marshaled for a measurable national impact, concentration of both financial resources and administrative capability on narrowly defined targets may make an appreciable difference in a limited number of big-city slums and rural depressed areas. The brief CEP experience argues for both technical assistance for planning and management capability and augmented resources to avoid becoming one more link in a chain of unfulfilled promises.

7. Administration officials and Members of Congress have been too impatient to await the results of new and existing programs and to allow for restructuring, removal of negative elements, and finally their expansion into effective programs. As a result, there has been an excessive resort to gimmicks and to attempts to devise "instant policies for instant success." The procedure has become a familiar one. New approaches are designed intuitively rather than empirically. They are launched with public relations fanfare, complete with numerical goals and early target dates. Manipulation of numbers to "prove" success then becomes a major staff function until a quiet burial of the goals and targets can be devised. The favored gimmicks of the moment are the CEP approach and private enterprise involvement. Both have promise as part of the manpower policy arsenal of weapons but the experiences of neither to date has earned the warmth with which they are being embraced.

8. For no program are there adequate valid data for evaluation of strengths and weaknesses and no program currently has a reporting system capable of producing such data. Data on the characteristics of enrollees are adequate in some but not all programs. Data on services provided are weak and followup data on program results are grossly inadequate and undependable. *Ad hoc* internal evaluations have been made of several programs, either in-house or by contract, but for the most part their coverage is limited, their data weak, and their investigations not probing.

9. Nevertheless, one concludes from observation, available data, and piecing together other fragmentary evidence, that some programs are at least moderately successful and merit expansion. None is a clearly proven failure, though in several cases the funds could have been better spent elsewhere. Through this necessary experimental process many lessons have been learned, needs probed, and useful services identified. Congress has demonstrated a willingness to change and adapt programs in light of administrative experience. Expansion of programs has been slower than anticipated but less because of congressional reluctance than absence of aggressive administration requests.

### C. PROGRAM EVALUATION

#### 1. MDTA <sup>2</sup>

MDTA's original objective was to retrain experienced adult family heads displaced by economic and technological change. As labor markets have tightened, its emphasis has shifted to the disadvantaged. MDTA consists of two distinct components—institutional and on-the-job training (OJT)—which are best evaluated separately.

a. The institutional training program has built-in "creaming" tendencies since its enrollees are primarily those who have sought help from an Employment Service office. Nevertheless, MDTA institutional training is increasing its proportionate enrollment of the nonwhite, the young, the public assistance recipient, the handicapped, and those with 9 to 11 years of education. It has yet to make significant progress in serving those with 8 years of schooling or less and persons over 44 years of age. Over half the institutional enrollees are apparently drawn from families with annual incomes of less than \$3,000 per year. The institutional training program probably "creams" within each disadvantaged category. However, the 70 to 80 MDTA skill centers clearly reach a more disadvantaged clientele than other MDTA projects and are probably reaching as deeply as any program except perhaps the Job Corps.

b. The OJT program has never served appreciable numbers of disadvantaged and its record has been worsening in all categories. This may in part be due to recent pressures to expand it to one-half of the total MDTA enrollment, primarily to get more enrollees within the same fixed budget. Enrollment means employment and employers are quality conscious. The Federal administrators of the program in the Bureau of Apprenticeship and Training (BAT) are experienced at promoting apprenticeship but accustomed to leaving recruitment and selection to employers and unions. To augment the limited BAT staff, OJT slots have been contracted to trade associations who subcontract the training to their members or to community action agencies, unions

<sup>2</sup> For detailed evaluation of the manpower development and training program see Garth L. Manum, *Contributions and Costs of Manpower Development and Training*. Policy Papers in Human Resources and Industrial Relations, No. 5, Institute of Labor and Industrial Relations, the University of Michigan, Wayne State University, 1967. The MDTA reporting system is set up to produce adequate data on trainee characteristics, training occupations, completions, and employment experiences of the first post-training year. However, serious underreporting makes the latter of doubtful validity and makes State-by-State analyses shaky. The OJT reporting is particularly bad. The reporting system is especially poor on costs and the nature of the training given. A mass of data is poured into the computers but there have not been the staff resources and top-level interest to see that it was retrieved and analyzed for managerial and evaluative purposes. Nevertheless, more information is available than for other programs.

and civil rights organizations who subcontract, usually with smaller employers. The trade associations have a quality bias and the community contractors, while they have the right prejudices, lack experience and competence.

c. Overall, the MDTA program has a favorable cost-benefit experience. The completers have more stable employment and higher earnings after training when compared with their own pretraining experience and with control groups. Disadvantaged institutional completers still have a more difficult time finding jobs than other completers but have better experience than in the absence of training. The disadvantaged have a difficult time getting into OJT but once in have retention rates not significantly different from those of the nondisadvantaged.

In addition to its contributions to its enrollees, MDTA has had a positive influence on the Employment Service on vocational education and, to a small degree, on apprenticeship. There are continuing issues of priority between serving the disadvantaged and nondisadvantaged, the relative effectiveness of institutional and on-the-job training and the appropriate Federal, State, and local administrative roles. None of these threaten the overall value of the program, however.

Enrichment of the program's services has been authorized from time to time but without commensurate increases in budget. Thus the choice has been between richer offerings for fewer and a leaner program for more. The program could be doubled in size within the limits of current administrative and training capabilities. Skill centers are currently operating at less than half capacity. Doubling the MDTA budget with emphasis on expanding the skill center concept and directing OJT more clearly toward the disadvantaged should be a legislative priority in 1968.

## 2. VOCATIONAL EDUCATION <sup>3</sup>

The Vocational Education Act of 1963 was the first major reorientation of federally supported vocational education since its beginning in 1917. Most importantly, it directed a shift in objectives from training for occupational categories to serving the training needs of people. It stressed serving those with academic and socioeconomic handicaps who could not profit from the regular programs. Federal funds, which are matched equally by the State, were expanded from approximately \$50 million to \$280 million per year over a 3-year period (and Congress actually appropriated the funds). Construction of "area" vocational schools (those serving a broader area than a single high school), more teacher education and better vocational guidance were encouraged. Closer alliance with the Employment Service was directed in order to relate training more directly to the labor market. Money was also authorized for research and innovative programs.

Some progress has been made, but largely, it would seem, for lack of Federal leadership, a promising act has not had a substantial impact upon the status and content of vocational education. The relative em-

<sup>3</sup> See vol. I, *Education for Employment*, of forthcoming report of the Vocational Education Advisory Council. The vocational education reporting system is abysmal. Its only real concern has been to see that the States match every Federal dollar and that the dollars are spent within the occupational categories prescribed by the Smith-Hughes and George-Barden Acts. There is practically no information on student characteristics, training contents, and results. The Advisory Council on Vocational Education has been hard put to find any data base for its current evaluation of the results of the 1963 act.

phasis on agriculture and home economics has declined (though their absolute enrollment has increased), new schools have been built, significant research has been undertaken for the first time, and relationships with the Employment Service in determining job market needs have been improved. About 1 of each 4 high school students now enrolls in a federally supported vocational program but 3 of 5 are still in home economics and agriculture. Another 1 of 6 is in office occupations which were added to the list of federally supported courses by the 1963 act. Four-fifths of the reported increase in enrollments since 1964 is accounted for by the addition of office occupations and may not reflect an actual increase in enrollments. Postsecondary and adult courses reach 4 percent of the labor force.

Nothing more than pious hope was provided to encourage the desired shift from an occupational grouping to a people-serving orientation. There has been little meaningful innovation under the act and a great reluctance to adopt proven experiments demonstrated on projects financed by foundations, OEO, and MDTA funds. Training occupations still reflect more the 1917 categories than current labor market needs. Offerings for those with special needs account for less than 1 percent of total expenditures. Program in rural schools and urban slums are limited and poor—just where they are needed most. This generally dismal picture is belied by some real bright spots but in general change has been slow and minor.

### 3. VOCATIONAL REHABILITATION <sup>4</sup>

The vocational rehabilitation program each year results in the placement in competitive employment of more disadvantaged persons than MDTA or any of the EOA programs and at lower average costs. However, its clientele have physical and mental handicaps rather than economic or cultural ones and surprisingly little training occurs. The Federal agency claims a 351-to-1 ratio of benefits to costs which can be deflated, using their data, to 12 to 1. However, the program is of undoubted worth. Its particular value is an individualized comprehensive services approach involving a close counselor-client relationship. A rehabilitation plan is mutually developed for each individual and the counselor, in effect, has a blank checkbook to purchase whatever services are needed.

There is some debate among vocational rehabilitation personnel between those who favor physical restoration to eliminate handicaps and those who emphasize training and other services to make employment possible despite existing handicaps. In addition to the basic services, there is an extensive research program, encouragement for innovation and a program of grants to universities and individuals for preservice and inservice training of rehabilitation personnel. The

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<sup>4</sup> See Garth L. Mangum and Lowell M. Glenn, *Vocational Rehabilitation and Federal Manpower Policy*, Policy Papers in Human Resources and Industrial Relations, No. 4, Institute of Labor and Industrial Relations, the University of Michigan, Wayne State University, 1967. The vocational rehabilitation reporting system is reasonably adequate for managing a rehabilitation program but there is no followup information to allow realistic assessment of program results beyond immediate employment. Data are currently inadequate to assess the demographic, economic, and cultural characteristics of the clients but the Federal agency is now collecting data on an individual client basis and will soon have data-processing capability which should improve the situation.

program has favorable congressional support and expands about as rapidly as the States are willing to meet their 25-percent matching requirement.

#### 4. THE U.S. EMPLOYMENT SERVICE <sup>5</sup>

The manpower legislation of the past 5 years has had a substantial impact upon the Employment Service, so much so that the agency is quite different from the Employment Service of 1962. No longer is it restricted to referring qualified workers in response to employer job orders. Through referral to MDTA, Job Corps and Neighborhood Youth Corps, involvement with vocational educators and community action agencies, and its own Youth Opportunity Centers and human resources development program, the Employment Service can search out those in need of its services, enhance their employability and even provide public employment.

The Employment Service is very much in transition. By and large, its involvement with the disadvantaged has been under pressure from the national office and in response to competition from community action agencies. Its role and objectives are in a state of confusion. The Department of Labor has become a more aggressive partner in the Federal-State system. It has continually added new programs and responsibilities to the Employment Service without commensurate increase in staff and budgets. It has then failed to set priorities among the assignments, all of which cannot be fulfilled adequately and equally with available resources. There is also evidence of failure to seek and achieve consensus before major policy changes. As a result, State and local officials do not share the degree of commitment to many responsibilities exhibited by those in Washington.

Four policy objectives appear to coexist, each reflecting stages in the agency's development. Many State employment security directors and businessmen still see the agency's primary function to be providing a work test for the payment of unemployment compensation. Most local Employment Service managers probably see their agency as an employer-serving labor exchange. The more progressive aspire to the position of community manpower center, serving all occupational groups and community institutions. Current Federal emphasis is on serving the disadvantaged. Mutually exclusive elements in these objectives are apparent. "Image" with employers probably suffers in direct relation to antipoverty involvement.

Problems of salaries and training remain significant barriers to attracting and retaining competent professional personnel. As long as ES and UI are together in the Federal and State bureaus, the Employment Service will remain at the fourth tier in the pecking order of authority and prestige in the Labor Department and in a similar position in State governments.

The time is imminent when the USES budget will have exhausted the revenue potential of its Social Security Act title III basic funding

<sup>5</sup> The Employment Service has detailed data on how many transactions occur but none on who is served, how well and what the results are. A forthcoming report by Garth L. Mangum and Arnold L. Nemore, *Reorientation in the Federal-State Employment Service*, will provide some data and more extensive analysis.

source. At that time, the issues involved in the ES–UI attachment will have to be faced and the decision will have to be made to switch partially or completely to general Treasury funding.

The Employment Service with its ubiquitous local offices is inevitably the “front line” arm of most manpower programs. It has been pressured by events into broadening its activities in behalf of many it previously could not or did not serve. It has cherished ambition to reach upward to others who have not previously sought its services. Without clear objectives it has no measure to evaluate or be evaluated by its own performance.

#### D. SUMMARY

##### 1. ACCOMPLISHMENTS

Needed services have been provided, needy persons have been served, and useful lessons have been learned.

The base has been established for a coherent program of remedial services to the competitively disadvantaged.

##### 2. LIMITATIONS

The administrative capability has yet to be developed for efficient delivery of service.

The resources committed are grossly inadequate relative to need.

Solution to the first limitation would greatly increase the chances of solving the second.



## MANPOWER ASPECTS OF THE ECONOMIC OPPORTUNITY ACT

BY SAR A. LEVITAN\*

### A. RATIONALIZATION

A case may be made for the rationalization of the antipoverty manpower programs. Emphasis is placed upon needs of youths whose life work is ahead of them. Separate programs are provided for needy youth attending school and for those who have dropped out of school. Two major alternatives are available to the latter group: work projects in their own communities or residential centers away from home.

Adults are also provided several options. The work and training program is designed to improve the employability of relief recipients and other needy persons. A related program was added in 1965 and expanded in 1966 for unemployed adults in rural areas (Mainstream). The Economic Opportunity Act has also funded since 1966 a new program designed to develop new careers for the poor, stressing opportunities for upward occupational mobility. Similarly, community action agencies employ indigenous poor in various subprofessional occupations, opening for them not only entry jobs but opportunities for rising on the occupational ladder.

### B. ADMINISTRATION AND COORDINATION

Regrettably, this orderly presentation has more the earmarks of a press release than a description of reality. Three different Federal agencies fund these programs and though they frequently serve the same clientele, each program has its own set of regulations, eligibility criteria, and levels of pay. Each program is a separate entity, operating independently of all other programs. The concentrated employment program, utilizing funds from different sources to package a single project, is an exception, but thus far of doubtful merit.

There is lack of coordination not only between the out-of-school Neighborhood Youth Corps and the Job Corps serving the school dropout population, but also between the in-school and out-of-school NYC, administered by the same agency at the Federal level—and frequently also by the same organization at the local level. Though the expensive Job Corps program was to be limited to youths whose rehabilitation requires residential facilities, no adequate screening de-

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\*Center for Manpower Policy Studies, The George Washington University. This paper is based on the author's forthcoming volume, "The Great Society's Poor Law," a study devoted to an evaluation of the Economic Opportunity Act. The project is financed by a grant from the Ford Foundation.

This paper was delivered to the Industrial Relations Research Association, December 28, 1967.

VICES have been developed to select youths who need Job Corps training and those for whom NYC would do. There are also no arrangements for transferring NYC enrollees to the Job Corps and Job Corps enrollees to NYC. There are also skill centers in some 70 or 80 communities, established by the Office of Education under the Manpower Development and Training Act. At the lower age spectrum, these centers serve essentially the same population as the out-of-school NYC and the Job Corps and provide remedial education and rudimentary skill training. In some communities skill center facilities go underutilized, though NYC enrollees could benefit by the remedial education and prevocational training offered.

The work experience and training (W.E. & T.) officials in HEW have also operated their projects separately from Labor Department and OEO efforts. There is no coordination between W.E. & T. and Mainstream projects, though both operate in rural areas and have essentially the same objective of improving the employability of adult poor. Similarly, CAP manpower programs operate separately from New Careers projects, though they share the common goal of developing subprofessional employment for the poor.

### C. DATA

Lack of data, the usual researcher's complaint, is more than justified in the case of the antipoverty manpower programs.

#### 1. JOB CORPS

Initially, the Job Corps improvised data to suit immediate needs, creating serious credibility gaps. As a response to congressional attacks, the Job Corps sponsored a number of followup studies conducted by Louis Harris & Associates. Technically, these studies leave much to be desired, but they provide information about the educational and employment status of corpsmen prior to entering centers, their attitudes and appraisal of center life, and their activities after they left the Job Corps. In addition, the agency developed careful cost data and has attempted to measure learning achievements of corpsmen while they were in the centers. These data provide a basis for appraising Job Corps performance.

#### 2. NEIGHBORHOOD YOUTH CORPS

Again, as a result of outside pressures, the Bureau of Work Programs has contracted belatedly for a number of studies which will eventually supply information about program operations. The BWP has also announced recently the inauguration of an internal information system about NYC performance, but the effort is still in the planning stage and remains only a promise. The limited information available about in-school projects is based upon studies undertaken by a few city school systems, independently of NYC. Some information about out-of-school NYC is available from its own surveys about the characteristics of enrollees and from an inadequate sample study of

former enrollees. In addition, there are a few surveys of selected projects. Cost and performance data are almost completely lacking.

### 3. WORK EXPERIENCE AND TRAINING

Information is available from monthly reports of individual projects. These reports are normally incomplete and the available statistics are not reliable. A number of project sponsors have prepared their own reports.

### 4. MAINSTREAM AND NEW CAREERS

Though these programs were approved in October 1966, no reporting system has been developed. Most of the new careers funds were allocated to the concentrated employment program and no information has been made public about the use that has been made of the committed funds.

### 5. COMMUNITY ACTION PROGRAM

Only guesstimates are available about the number of indigenous indigents who are employed on CAP-funded projects. Whatever information is available about their earnings, characteristics, duration of employment, and occupations can be gleaned from reports on a few community action agencies. Whether the projects studied are typical cannot be ascertained.

## D. FUNDING AND COSTS PER "SLOT"

The total Federal appropriations for EOA manpower programs during fiscal year 1967 amounted to between \$800 and \$900 million. The lack of precision is due to the unavailability of information about the funds allocated by community action agencies for the employment of indigenous poor who are hired to serve other poor persons in their communities. Average annual enrollment in the program was about 250,000, excluding summer NYC. The following tabulation presents the best available estimates of the funds allocated to each program and the annual cost per "slot."

Program	Fiscal 1967 funds (millions)	Average annual cost per enrollee <sup>1</sup>
Job Corps.....	\$211	\$5,076
Neighborhood Youth Corps.....	372	-----
In school.....	(68)	650
Summer.....	(133)	520
Out of school.....	(160)	2,930
Other.....	(11)	-----
Work experience and training.....	100	2,100
Enrollees drawing public assistance.....		1,450
Other.....		3,450
Mainstream (Nelson).....	36	3,500
New careers (Scheuer).....	36	5,000
Community action program.....	(?)	4,500

<sup>1</sup> Only "hard" figure is for Job Corps; the others are estimates for budget planning or "guesstimates."

<sup>2</sup> Not available.

## E. REVIEW OF PROGRAMS

### 1. JOB CORPS

The primary goal of the Job Corps is to provide education and training for youth from impoverished homes who have failed in school, who have no salable skill and frequently not even a rudimentary preparation for work.

Job Corps data indicate that an enrollee who spent about 9 months in a center improves his reading ability by  $1\frac{1}{2}$  grades and his arithmetic comprehension by two grades. In the absence of acceptable norms, this level of achievement is difficult to evaluate. However, the record is clear that the longer a corpsman remains in a center, the more likely he is to be employed and to use his training.

Nevertheless, considering the high cost of maintaining a youth in the Job Corps—exceeding \$8,000 a year—it is necessary that youths who require residential training be identified and that other youths be assigned to alternative programs. Thus far the selection of a youth for the Job Corps, NYC, or some other program is determined by fortuitous circumstances.

Some educators have questioned the basic premise of the Job Corps. They have argued that it is a romantic notion to expect the rehabilitation of youths from city slums or rural areas after a stay of 8 or 9 months in the centers. These critics suggested that removing youths from their environment is an impediment rather than a help to their rehabilitation. This argument was persuasive with many Congressmen and the 1967 Republican opportunity crusade bill proposed turning the Job Corps over to vocational authorities who would make it part of community skill training centers. Congress rejected the proposal.

The case for providing residential centers for certain disadvantaged youth is persuasive. However, the Job Corps has not succeeded in motivating enrollees to remain in the centers for enough time to permit the education and training to have its effect. Only 1 of every 3 enrollees completes his course of training. Nevertheless, based on a cost-benefit study, Prof. Glen Cain, of Wisconsin University has concluded that the social benefits that will accrue from the program will exceed costs.

### 2. NEIGHBORHOOD YOUTH CORPS

In contrast to the controversial Job Corps, the Neighborhood Youth Corps has distributed its funds with a minimum of fuss and has provided income to as many as a million poor youths. Congress has continued to bestow its blessings upon the program, despite the little that is known about its effectiveness in enhancing the employability of enrollees.

The Neighborhood Youth Corps has a double function: to provide part-time employment to youths from impoverished homes attending school and to help those who left school to “develop their maximum occupational potential.” Despite the clear congressional intent, the program may be described more properly as an income support pro-

gram. The funds allocated to NYC are distributed about equally between the in-school (including summer) and out-of-school projects. There is considerable evidence that the in-school program is effective in preventing youth from dropping out of school.

It is more difficult to justify the out-of-school program as an income maintenance program. Few projects provide remedial education and prevocational or vocational training in a systematic manner, though the bulk of the participants are high school dropouts. The reason for this is not hard to find. Given limited resources, the administrators of the program opted to serve a maximum number of clients. The result has been that the bulk of Federal funds is expended on providing income to participants. Youths participating in the program are normally assigned to public or nonprofit private organizations. Too frequently their assignments are in the nature of "make-work" not leading to skill acquisition or better opportunities for employment. A sample survey of former out-of-school NYC enrollees showed that only 5 percent of the boys and 13 percent of the girls were employed by the agencies to which they had been assigned during their NYC experience. There is little direct relation between the NYC assignment and later employment.

In October 1966, Congress indicated concern for the quality of training provided by NYC and authorized the use of NYC funds for on-the-job training with private employers. The congressional mandate remains to be implemented.

The out-of-school NYC program seems to be a mixture of work experience, income support, antiriot insurance and "aging vat." There is little doubt that NYC has provided income support to many impoverished youth and their families. The program has also benefited from the widely held impression that it provides antiriot insurance. The rationale of NYC as an "aging vat" is based on the fact that unemployment rates among youths decline as they mature from teenagers into adulthood. There is room, therefore, for a program which would provide youth with some income and work during their early years in the labor force.

### 3. WORK EXPERIENCE AND TRAINING

The goal of the work experience and training program (title V of the Economic Opportunity Act) is to help welfare recipients and other needy adults to become self-supporting. It was hoped that the work experience and training gained on the projects, as well as the additional supportive services, would help the enrollees to find work.

Available evidence raises the question as to whether the goal of the program is being achieved. Although about a third of former enrollees have secured jobs, it is doubtful whether participation in the program has significantly contributed toward their securing employment. Despite the image of second and third generation welfare recipients, employable recipients of public assistance remain on relief rolls for an average of less than 9 months. Therefore, it is not unexpected that many participants in the title V program, who average 5 months on

a project, would secure employment upon completion or even before terminating their W.E. & T. experience.

While title V leaves much to be desired as far as achieving its statutory goal is concerned, the administrators of the program could not publicly claim credit for some of its most socially useful projects. In a number of areas, title V projects have become the employer of last resort, saving thousands of families from dire want and deprivation. Given the legislative mandate, the reluctance of administrators to claim credit for these programs is understandable.

It would seem that most W.E. & T. projects have provided little meaningful work experience and training. The program has probably failed to help many participants achieve self-support. One of every two relief recipients remains on public assistance rolls after terminating participation in a project and most of the funds allocated to W.E. & T. during its first 3 years were expended to provide temporary work relief.

Several built-in obstacles in our public assistance system militate against the success of the program. In most States, all earnings of relief recipients are deducted from the assistance they receive, a situation which will be somewhat ameliorated by the 1967 amendments to the Social Security Act. Since the jobs open to recipients frequently pay little more than the basic needs provided by public assistance, there is little incentive to accept a job. The incentive to secure employment is further reduced by the difficulty which a relief recipient will have in returning to the welfare rolls if he should lose his job.

Congress has recently determined to expand the work experience program for relief recipients. While the House Ways and Means Committee, which originated the legislation, intended to reduce relief rolls by requiring "employable" mothers to work, it would seem that Congress has taken a major step to expand the role of Government as an employer of last resort. However, as Garth L. Mangum, who coined the phrase, has stated: "The Government as an employer of last resort must be the last resort for the Government as well as the individual." To become self-supporting and to gain employment in the competitive market, the poor need more than opportunities for sheltered work, which is all that the new legislation provides.

#### 4. MAINSTREAM

Mainstream is a close relation to W. E. & T. Originally introduced by Senator Gaylord Nelson as a token rural public works measure, the program was expanded during fiscal 1967. The rhetoric of the program—the name itself is an indication—established two apparently contradictory goals: to hire chronically unemployed workers in community service jobs and to provide for upward mobility. Since the median age of Mainstream participants is estimated to be about 45 and most of the projects are located in rural areas with scarce alternative employment opportunities, it is not likely that the upward mobility goal of the program can be achieved. Mainstream projects have served as employers of last resort, paying minimum hourly rates,

though in some areas the hourly rate is higher, depending upon the prevailing wage for unskilled labor.

##### 5. NEW CAREERS

The concept underlying the new careers program, according to Congressman James H. Scheuer who introduced the legislation is to provide "unemployed, low-income persons \* \* \* new permanent jobs with career potential."

Two elements are involved: the breakdown of jobs into components and the training of the poor to fill the newly created jobs. A prime condition for new careers is the existence of sustained labor shortages in selected occupations. The acquiescence, if not support, of vested groups to "watering down" job qualifications is also crucial.

Few would question that job requirements are frequently blown up and have little relation to efficient performance. At a "high level," suffice it to mention that many universities still require proficiency in two foreign languages to qualify a Ph. D. candidate specializing in manpower problems.

There is room, therefore, for springing, or at least loosening, the credentials trap (to use Dr. S. M. Miller's apt phrase) that controls entry into various occupations. For example, many chores performed by teachers do not require a B.A. with training in philosophy of education. Headstart has accordingly funded jobs for teacher aides who perform the simpler tasks involved in a teacher's day-to-day activities. Other educational programs have since followed suit. The teacher aide jobs, however, do not normally provide for occupational advancements and the aide's tasks remain largely menial and clerical. The new careers program attempts to build on this experience providing opportunities for upward mobility. A project funded by the Scheuer program in Minneapolis offers an illustration. Teacher aides hired with funds from the Elementary and Secondary Education Act will be provided a combination of on-the-job experience with college courses leading to a teacher associate job whose functions will include serving as a teacher's substitute and helping teachers with special problem cases and remedial education. The city of Minneapolis has assumed the responsibility to absorb half the cost of training teacher aides after 1 year and to establish, subject to State approval, a permanent teacher associate position. The expectation is that the project, if successful, will establish a new job classification which may spread beyond Minneapolis, and even the State boundaries.

It should be recognized, however, that the concept has serious limitations, even dangers. Many new careers devotees have tended to attach special virtues to the concept and have thus fallen into new traps of their own. It would be more correct to view new careers as a stopgap measure offering more than entry jobs to the poor and slum residents than a solution to fill vacancies in public jobs requiring professional and technical training. In the long run, the quality of public service may be deteriorated if job qualifications are reduced indiscriminately.

## 6. COMMUNITY ACTION PROGRAM

The experience of community action agencies in hiring the poor to perform subprofessional duties offers additional observations on the difficulties of developing job opportunities with upward mobility. Since the Office of Economic Opportunity maintains no systematic data on subprofessionals hired by community action agencies, judgments about their activities must be gleaned from disparate sources. The available data suggest that in most cases the training provided subprofessionals is sporadic or nonexistent and that professional workers have normally shown little enthusiasm for sharing work and responsibilities with the subprofessionals. Consequently, as CAA's become stabilized and bureaucratized, a common ailment of maturing organizations, the subprofessionals may be locked in their lowly status with limited opportunities for upward occupational mobility. Turning CAA's over to the tender care and supervision of city halls and county courthouses does not offer bright prospects to the development of subprofessional careers in CAA's. It seems that CAA's offer the indigenous poor jobs with relatively low income and limited career prospects.

## F. CONCLUSION

A review of the Economic Opportunity Act work and training programs casts serious doubt whether these efforts achieved the hortatory goal of the legislation. Too many participants have failed to gain economic independence, let alone opportunities for upward occupational mobility. The experience also indicates the difficulty of designing and administering mass projects which lead to the economic self-sufficiency of the poor. It is not surprising, therefore, that much of the antipoverty funds has been expended on traditional relief measures to meet age-old problems. It would be a mistake, however, to conclude that Federal funds have been wasted. On the contrary, money was distributed to provide temporary support to poor people, and, to quote a Jewish saying, "living by the hour is also a living."



# VOLUNTEER MANPOWER IN THE UNITED STATES

BY HAROLD WOLOZIN\*

## INTRODUCTION

The employment of volunteer manpower has grown to significant proportions in our Nation. Private voluntary organizations, government, organized labor, churches, and businesses use and/or contribute volunteers to produce volunteer services. In this paper we are concerned with (1) the state of our knowledge of the nature and magnitude of volunteer work in the United States; (2) the determinants of the demand and supply of volunteer manpower such as the secular growth in social and community services, the widening variety of tasks—at all levels of skills—assigned to volunteers, the secular rise in income levels, trends in the distribution of income, the increasing tax burden implicit in projected increases in government expenditures on social capital and services, and certain economic and demographic influences on household attitudes toward the utilization of “nonjob” time; (3) the use of volunteer workers in governmental or government-sponsored education, social welfare, health, youth, and recreational programs; and, lastly, (4) the evidence pointing to the need for the Federal Government, as well as State and local governments, to explore the advisability and economic implications of utilizing volunteer manpower more widely and within this context, to initiate basic research on the role and contribution of volunteer manpower in our economy. It is also likely that the relatively limited interest in volunteer manpower on the part of many government agencies, their minimal use of volunteers and the paucity of research on volunteer labor’s place in economic and community life in the United States, reflects a possible underutilization and, in some cases, a misuse of volunteer manpower. There are, of course, exceptions such as the highly trained and effective volunteers of the Peace Corps as well as the longstanding and substantial use of volunteers in Veterans’ Administration hospitals. Other programs such as those of the Department of Agriculture and the Office of Economic Opportunity have developed coherent but more limited volunteer programs.

As we will show below, all evidence points to the conclusion that a significant proportion of the American population—in as well as out of the work force—give of their labor without pay in a wide range of services encompassing an equally wide range of skills. The services with which we are here concerned are an integral part of community

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\*Professor of Economics, the University of Massachusetts at Boston. Ruth S. Wolozin, president of the Volunteer Community Activities Clearing House, Washington, D.C., and editor of the *Volunteer's Digest*, gave invaluable assistance in the writing of this article. She has provided a wealth of materials and resources on voluntarism gathered through communication with volunteer groups, large and small, throughout the country.

life and are provided in and through government agencies, private voluntary associations, churches, civic organizations, businesses, labor unions, and unaffiliated ad hoc groupings of citizens, sometimes coming from the very groups being served; i.e., the indigenous volunteers. Going all the way back to deTocqueville's bemused wonder at the unique proclivity of Americans to join voluntary associations and contribute their brains and brawn to social and community causes, much has been made of the fact that volunteers work without market incentives; i.e., they work without pay; but there has been surprisingly little comment or research devoted to the economic aspects of voluntarism, particularly its contribution of services to society, its growth, its productivity, its organization, its composition, etc.

Although in this paper we must limit our discussion to such pragmatic considerations, it remains of considerable interest to us that the motivation to work in this case is not conventionally utilitarian, not a promise of a money reward. The implications of this for the conventional theory of consumer behavior as well as the redistributive effects may well be significant and worthy of separate exploration. The question of noneconomic motivation, in particular, raises interesting questions for both economic theory and public policy. However, the present state of our knowledge on this subject is largely speculative, although there have been some recent attempts to query volunteers on why they volunteer.<sup>1</sup>

Attempts to explain why people volunteer more often than not reflect the value biases, ethical leanings, or psychological assumptions of the speculating scholar, rather than objective insights into what motivates volunteers. Researchers have also attempted to determine, through surrogate indicators, the conditions in households under which people seem to be stimulated to offer their productive services without monetary compensation. Their findings have generally been confined to measuring the characteristics of households who supply volunteer labor. The pioneer in this effort is the Survey Research Center at the University of Michigan which used multivariate analysis in a recent report to identify the significant conditions "explaining" volunteer labor.<sup>2</sup>

#### VOLUNTEER MANPOWER, A HUMAN RESOURCE

The principal focus of this paper is with volunteer manpower as a human resource; an extension of and/or supplement to the existing labor force and an increasingly significant source of human resources which can be utilized for the expanding service activities of government and private organizations. If volunteer manpower and services are an integral and increasingly important part of American life, it would follow that Federal programs concerned with the conservation, development, and utilization of human resources as well as the regular manpower and labor force statistical training programs of the Federal Government might be well advised to incorporate volunteer labor into their programs to a greater extent than they have so far. We have

<sup>1</sup> For an excellent summary see Johnson, G. G., *Volunteers in Community Service*, Chapel Hill, 1966, ch. V, "Why They Volunteer," pp. 63 ff. A forthcoming Labor Department report will also present some survey evidence.

<sup>2</sup> Morgan, J. N., Sirageldin, I. A., Baerwaldt, N., *Productive Americans*, University of Michigan, 1966.

already questioned the validity of the inference that because of the increasing provision of government services voluntarism has reached its zenith and will decline in importance over the next few decades.<sup>3</sup> The fact that a few national and international programs of the Federal Government make considerable use of volunteers, use comparable to that of private, national, and regional health, education, and welfare organizations, might alone suggest that as these government programs grow, so will the existing manpower, human resource and statistical programs of the Federal Government be forced to draw upon volunteers, particularly in view of their proven performance. This is the more likely impact of the anticipated "vast increase" in public services rather than the possibility that it could lead to a decrease or even disappearance of volunteer work.

This question alone points up the importance (even though very little data are available) of facing up to the question: How important, both qualitatively and quantitatively, is volunteer work in our economy? If the apparently large number of volunteers in our society were to be producing a negligible quantity of productive services, then the policy implications and our stance toward voluntarism would be quite different than if these volunteers are contributing a significant and increasing amount of services to the Nation. Preliminary investigations, to be discussed below, on the implicit annual contribution to the gross national product of volunteer services, services which, at present, are neither priced nor imputed to the GNP, suggest a tentative affirmative answer to this question.

Equally important is the second set of questions we address ourselves to in this paper: Has voluntary work been on the increase over the last half century? Does it show signs of leveling off or is the rate of growth in both the volunteer work force and its contribution to the welfare of our society on the increase?

#### WHAT IS VOLUNTARISM?

Before going on to discuss these fundamental matters more fully, let us consider the concept of voluntarism as we define it in this paper. We have already stipulated that it is service contributed without pay. This does not imply, however, that these services would have been purchased if they had not been available through voluntary contribution although the possibility is certainly not precluded and in many cases likely. For example, in the absence of volunteer workers the approximately 10 million hours of services contributed last year by over 100,000 workers to the Veterans' Administration would certainly have had to have been provided for, at least in part, by hiring additional government employees. Furthermore it is probable that many of these same workers would not have been available for hire if their services as volunteers were not desired. This raises the possibility that to a large degree volunteer workers are uniquely volunteers, that is, they would offer for "pay" those particular skills and labor which they willingly supply without compensation. If this is true, then we can infer that a significant share of the volunteer labor pool is in actuality an addition to an extension of the labor force, at present an uncounted addi-

<sup>3</sup> Morgan et al., p. 162.

tion. Our definition, at the same time, does not require that the services would have been sought in the regular labor market if volunteers were not available or desired. There is also evidence that in certain fields such as mental health, volunteers provide a unique service which is in some way dependent upon their being volunteers and untied to market incentives.

We believe that in the definition exclusions should be kept to a minimum. Grounds for deciding which kind of activities will be counted as volunteer work, as opposed to those which are not, may too often require questionable subjective judgments. We would prefer to follow the precedent set by the National Accounts Statisticians who, in estimating the gross national product, exclude only illegal output and encompass all other output involving market transaction plus a few categories obtained by imputation. Following this, we would include all volunteer activities which have market counterparts, including some which others would exclude in their definitions; thus, we would count fund-raising, picketing and other union activities, teaching Sunday school, singing in church choirs, neighborhood projects, etc. This broad definition makes considerable sense if we are really looking for a measure of volunteer manpower; these are all activities involving effort and skill, as do accepted labor force activities. The definition, however, does not include services directly rendered to one's own household. These can be counted as "do-it-yourself" work.

It is often argued that many volunteer activities are in reality a form of recreation rather than actual work. It would seem to us that the question at issue is whether the service was contributed by the worker rather than whether it was pleasurable or not. It seems to us that attempting to draw such a line would create an almost hopeless classification problem; furthermore, what about the paid worker who loves his work? I am suggesting that the question of motivation, whether volunteer services are done for fun, is irrelevant to the problem of classifying such activities; it is advisable to embrace the simple-minded specification that an activity is eligible for classification as a volunteer service if it involves effort and time on the part of the volunteer and there is some actual or close market counterpart. In this way, some activities may be missed but many more will be counted in a consistent and systematic way with a minimum of arbitrary exclusions.

#### THE MAGNITUDE AND SCOPE OF VOLUNTEER MANPOWER IN THE UNITED STATES

Not until only recently have any serious attempts been made to estimate, on the basis of actual survey samples, the quantity (number of hours) and types of volunteer work contributed by households in the United States. These attempts are two in number; the first is part of a broader study of the economic behavior of individuals by three social scientists of the Survey Research Center of the Institute for Social Research of the University of Michigan,<sup>4</sup> the second is a "feasibility" project of the U.S. Department of Labor, not yet published. A study of a closely related problem, the practicability of putting a dollar tag

<sup>4</sup> Morgan, et al., *ibid.*

on volunteer services, imputing their value to the gross national product, has been undertaken by the National Bureau of Economic Research and was described by the author of this paper in a first progress report paper delivered last year.<sup>5</sup> (We shall refer to this paper as the "Imputation paper.")

In order to estimate this value (the hours of volunteer services multiplied by their wage, which is in this case an inferred hourly wage rate for volunteer services), some estimate of the quantity of volunteer work is required. With no data such as that of the Michigan study available, it was clear that the only alternative was to base our estimates on data compiled by organizations employing volunteers; in other words, information on the demand rather than the supply side. An estimate of the quantity of volunteer work was thus derived from the data supplied by "producers" of volunteer service, which in this instance were a small sample of Government and national voluntary organizations. The overriding advantage to this approach was that historical records could be utilized. Unfortunately, the sample was small and highly purposive; it was dependent upon organizations who compiled data systematically which turned out to be a disappointing minority of voluntary organizations. Therefore, the estimate of volunteer work was presented as illustrative with the caution that it was based upon "a very heterogenous collection [used] with reluctance only because they are the only data available without extensive further research."<sup>6</sup> Yet, in retrospect, because of what may have been offsetting errors, these first imputations may not have been as far off as I feared; for the imputation is not too far from that implied by the survey results obtained in the Michigan study covering the calendar year 1965. The findings of the Labor Department study for 1966 are not yet available for distribution although from the nature of the design of the questionnaire used by the Labor Department survey, there is strong reason to expect that the latter will produce a comparable estimate of volunteer labor. However, for different reasons it appears that both the Michigan and the Department of Labor surveys will probably ultimately prove to have underestimated the contribution of volunteer labor in our economy.

According to the Michigan survey the average American family spent 87 hours of its time in 1964 "doing volunteer work." With 43 percent of the families reporting that they had done no volunteer work, it would appear that those households who did volunteer contributed about 150 hours per year.<sup>7</sup> This was a figure which, on the face of it, was inconsistent with the conclusions of the Imputation paper which found, on the basis of data supplied by seven organizations (private and Government) using approximately 5½ million volunteers across the land, that the average volunteer in those organizations worked 4.6 hours per week, or an average of 239 hours in 1964 per year per organization volunteer.<sup>8</sup>

<sup>5</sup> Wolozin, Harold, "The Value of Volunteer Services in the U.S. Economy," paper delivered at the annual meetings of the Southern Economic Association, November 1966, Atlanta, Ga. This was a first report on an exploratory project of the National Bureau of Economic Research (mimeograph).

<sup>6</sup> Wolozin, *ibid.*, p. 24.

<sup>7</sup> Morgan et al., p. 140.

<sup>8</sup> Wolozin, H., *op. cit.*, p. 26.

Furthermore, on the basis of these figures, we might infer that the actual time spent by the average volunteer as opposed to the average volunteer per organization might be higher, for many volunteers serve more than one organization. The disparity, however, is not so surprising in view of the differences in definition and coverage. The Michigan survey included in their figures only the volunteer labor contributed "by heads of families and wives" which would miss other volunteers in the household. It could have included, as will the Labor Department survey, all members of families over 14 years of age. We anticipate that on this basis alone, the Labor Department figures will be considerably higher even though for other reasons they may seriously underestimate the total.

In the Imputation paper, furthermore, the use as its source of organizations which were most likely to keep systematic data meant, we suspect, that these were organizations which were most likely to make more continuous and intensive use of volunteers in their programs than many other types of organizations and groups utilizing volunteers. This is a hypothesis which, of course, should be tested by future research. However, it sounds reasonable. What matters to us is that if this is true, this could have imparted an upward bias to the Imputation paper estimates. We conclude, therefore, that on balance, the two estimates err in offsetting directions, which implies that the true figure on hours worked lies somewhere in between.

Interestingly enough, however, suggested estimates for 1964 of the imputed value of these services obtained from the Michigan data and the Imputation paper data were surprisingly close—closer than could be expected in view of the differences in hours, \$14.1 billion, which is the implied value of the Michigan study, against \$13.1 billion (in current dollars) in the Imputation paper. Part of the explanation for this close correspondence is that the Michigan study valued the hourly services of volunteers about one-third higher than the Imputation paper, a procedure which more than offset the difference in hours. It might be interesting to note, further, that if projections were made under the assumptions of the Imputation paper, by 1980 the imputed value of volunteer services would have reached at least \$30 billion. If the findings of the Michigan study were substituted as the base, it would have been even larger. All of this suggests that many questions remain to be answered about the quantitative aspects of volunteer manpower in the economy. However, it must be emphasized that, without question, the Michigan study marks a major advance in our knowledge of the volunteer labor market. For the first time, we have a direct estimate of the size of the contribution of volunteer labor in the United States based upon a systematic nationwide statistical sample. Even though the resulting estimate for 1964 may well be on the low side, it is nevertheless sizable and demonstrates that volunteer labor is a significant contributor to economic welfare in our economy.<sup>9</sup> Furthermore, on the basis of lessons learned from the Michigan study, as well as those we will ostensibly learn from the broader Labor Department feasibility study when it becomes available, we will be in a better position to devise a more representative survey, one benefiting from the

<sup>9</sup> We multiplied the imputed value per family of the Michigan study figure which the authors felt was low, by the number of households in the United States.

knowledge contributed by, as well as the shortcomings of, the work already done.<sup>10</sup>

This is not to suggest that we ought not also to continue to work on the demand side, the approach followed by the Imputation paper. It has obvious statistical advantages and might well be necessary in order to maintain any continuous series on volunteer labor and/or imputations to gross national product of the implicit value of this volunteer labor in our economy.

According to the findings of the Imputation paper, the volunteer labor pool and its utilization has been growing significantly in the United States over the past half century. This is indirectly implied if some of the findings of the Michigan study could be utilized to make historical estimates of volunteer work these might be based on what we know about earlier behavior of the "predictors" determined by the multivariate analysis of the study. These, as we pointed out above, were those characteristics of households found to explain the amount of volunteer work contributed by the families under study. Let us look at the evidence of trends in the utilization of volunteer labor in the United States as reported in the Imputation paper. Then we can discuss the supporting evidence of the Michigan study.

In the work on the imputation of volunteer services it was pointed out that, on a priori grounds alone, the growth in population, labor force, services, household income, and the decline in the work week over the last half century would be expected to bring a concomitant growth in volunteer work. We attempted to get around the lack of any census of the volunteer labor market of any systematic, comprehensive data on the use and contribution of volunteers in our economy for any extended period, by going to the users of volunteer labor for two kinds of data; membership data on volunteers and/or selected voluntary service organizations and time series on hours of volunteer work done in the organizations or by these members. Familiarity with the annals of voluntarism suggested that these data for the organizations selected were fairly representative of the established organizations although we point out above some possible biases. We found an increase in the rate of growth of volunteer workers which is entirely consistent with what has been happening in services in the first half of the century; for, as Victor Fuchs has established, in the period 1929-63 the total number of service workers grew at exactly twice the rate of "goods" workers, 1.8 percent per year against 0.9 percent per year and an annual population growth of a little over 1 percent.<sup>11</sup>

<sup>10</sup> We have already discussed some of the limitations of both the Imputation paper and the Michigan study. The Labor Department survey may, like the Michigan study, in our opinion, result in a serious underestimate of volunteer labor for the following reasons: (1) As part of census survey of the labor force the sample design would give lighter weight to those very groups or classes of households which according to available evidence might be expected to contribute relatively larger shares of volunteer labor, i.e., those in higher income brackets and those living in very small urban places (see Morgan, *ibid.*, p. 149); (2) its emphasis on organizational sponsorship of volunteer work and its disregard of neighborhood projects, the indigenous workers, etc. (Theirs is an interpretation of volunteer work which we feel excludes a significant share of volunteer work.) (3) the distinction between religious and nonreligious volunteer work and the way in which the survey apparently handles this distinction; (4) its choice of the survey week containing the November 11 holiday observed in many sections of the country and its undercoverage of those not working in the survey week. The latter is a methodological procedure not related to the fact that it is a holiday week, we must add. There are certain other limitations, in addition.

<sup>11</sup> Victor Fuchs, "The Growing Importance of the Service Industries," *The Journal of Business*, October 1965.

TABLE 1.—*Rates of growth of volunteer services in selected organizations*

Organization	Annual growth per year (in percent)	
	Hours	Number of workers
Veterans' Administration:		
1949-64.....	5.1	---
1955-64.....	3.9	2.5
Department of Agriculture extension (local leaders):		
1923-64.....	---	4.7
1948-64.....	---	1.4
Red Cross:		
1921-64.....	---	7.7
1948-64.....	---	2.0
League of Women Voters:		
1930-64.....	---	1.8
1948-64.....	---	2.9
Illinois State mental institutions: 1954-64.....	14.1	---

Source: Imputation paper: Table 3, computed from data supplied by the organizations.

Table 1, representing data on the services of several millions of volunteers demonstrates substantial growth, in recent decades, in voluntary work for the sample or organizations investigated. The volunteer program, for example, of the Veterans' Administration, drawing volunteers from voluntary organizations such as veterans and community groups across the Nation, shows a growth of 2.5 percent per year over the period 1955-64 in the number of workers and 3.6 percent per year in the number of hours worked. This reflects an increased utilization of volunteers in existing programs and a broadening of their participation according to the Veterans' Administration. Over the period 1949-64 the growth in hours was, at 5.1 percent, even greater and certainly in excess of the annual increase in real GNP. Of particular significance is the fact that in some instances, the fastest period of growth—a catching up period—apparently seems to have occurred in the 25-year period up to the end of World War II. After that, there seems to have been some slowing down in the rate of growth, bringing it closer to the rate of growth in the number of families in the United States. However, the fact that these data came from the established, in some sense, old line organizations might suggest that the slowdown may have to some degree merely reflected the fact that the burgeoning of new organizations and volunteer programs was absorbing the increased volunteer manpower. The record of the Illinois mental institutions in table I bears this out. Furthermore, the earlier period was one in which there was a definite decrease in the inequality of income distribution, whereas in the later period this trend was arrested. We shall discuss the implications of this later. Even a cursory survey of the behavior, overtime, the predictors used in the multivariate analysis of the Michigan study, suggests that their behavior is consistent with a rapid rate of growth in volunteer services. It is quite clear that those factors which "explain" most of the volunteer work estimated in the Michigan study support the growth pattern we described above and also imply a continued increase in the importance of volunteer work over the next few decades, contrary to the reservations of the authors of the Michigan study.



## VOLUNTEER MANPOWER IN THE FUTURE—THE OUTLOOK

What we refer to is the finding that volunteer work was directly and positively related to a number of factors of which the following three stand out: (1) income, (2) education, (3) the number of home appliances owned by the family. (This is, in a certain sense, a surrogate measure.) The latter demonstrated by far the highest predictive capacity and is a finding which invites a good deal of suggestive speculation about its implications. We can assume that this cross-sectional relationship has held over time; that the secular increase in income level and levels of education and ownership of appliances can, therefore, be counted upon to be good "predictors" of a parallel growth in volunteer work. Another closely related factor is the possibility of a resumption of the trend toward equalization in the distribution of income which has been arrested since World War II. This would imply an acceleration of the movement out of the lower income groups into the higher, more volunteer prone income groups and a movement superimposed upon the secular upward drift in all incomes.

As we have pointed out, in looking at the prospects for volunteer manpower in the future, we need to look at the trends on both the demand and supply sides. We have already seen that the two studies cited above give us considerable insight into these. But we need to know much more, building on the beginning that has been made. On the supply side, several things suggest themselves over and above the Michigan study's conclusion that volunteer work "is encouraged by being settled and having labor-saving appliances"<sup>12</sup> and that the quantity supplied is positively related to levels of education and income. Other changes in economic and social conditions may be expected to result in measurable increases in the availability of volunteer labor over the next half century. In particular are the following: (1) expansion of the variety and levels of skills demanded by organizations and groups utilizing volunteers such as new community programs under State and Federal auspices<sup>13</sup>—all of which could make volunteer work a more challenging as well as a more productive use of increasing leisure time; (2) the possible impact on the supply curve of labor-for-pay as contrasted with contributed labor, of a significantly heavier tax burden accompanied by more steeply progressive taxes, that is, higher marginal income tax rates.<sup>14</sup> In nontechnical terms volunteer work may become more attractive simply because the alternative of spending more time on paid work will result in less additional after tax income. It may also be more attractive if the alternative for earning marginal income is moonlighting. Working in volunteer programs corresponding to one's interest, needs, and skills would be that much more attractive.

It is important to bring out the fact that there is accumulating evidence that the scope of volunteer activities is expanding both vertically and horizontally, that is, more types of activities involving a

<sup>12</sup> Morgan et al., *op. cit.*, p. 162.

<sup>13</sup> *Volunteer's Digest*, November 1967, p. 3.

<sup>14</sup> Morgan et al., *op. cit.*, p. 141.

much greater range of skills and training. In a recent survey of volunteer organizations in North Carolina, two-thirds of the organizations in the survey reported that their use of volunteers had changed within the past 10 years; volunteers are given more responsibility and more assignments that require special training through both day and evening training classes, the latter for the increasing numbers of "business and career girls" applying for volunteer assignments.<sup>15</sup> Impressive evidence of the wide range of skills, knowledge, and talents demanded in an increasingly wide range of activities has been accumulating in recent years.<sup>16</sup>

If we look at the wide range of services demanded of volunteers in representative national organizations making substantial use of volunteers we find that they go from the most menial to assignments requiring high degrees of skill and professional training such as teacher training, law, medicine, engineering, and other professional training.

### VOLUNTEER LABOR IN GOVERNMENT PROGRAMS

The use made of volunteer workers by governmental agencies on the Federal level runs the gambit from an agency like the Peace Corps, which is almost entirely staffed by volunteers, to the Veterans' Administration, which makes significant use of volunteers in its medical programs, to the Department of Health, Education, and Welfare which, considering the nature of its assignment, has developed remarkably few programs utilizing the reservoir of volunteer manpower in this country.

There is other evidence that government agencies differ dramatically at all levels of government, State and local as well as Federal, in their ability to utilize volunteer labor. In this paper we can do little more except to illustrate this with a few cases. One recent report, for example, stated: "Programs designed for the general welfare of all citizens supported by local, State, and Federal funds are less likely than privately financed programs to seek the assistance of volunteers \* \* \* ." Commenting on a specific example the report went on, "There was a tacit understanding that when government takes over the volunteer retires. The women knew well enough that their proposal would not be accepted if they showed any desire to hold onto it. The only way a Recreation Commission had a chance to succeed was for them to do the pioneer work and then withdraw and let the current power structure take over."<sup>17</sup> Here we see testimony of rejection of volunteer services.

Not only the regular agencies responsible for programs of the health, education, welfare, and regulatory programs of the Federal Government, but certain special groups such as the Federal Consumer's Advisory Council might avail themselves of volunteers. One example

<sup>15</sup> Johnson, G. G., "Volunteers in Community Service," Chapel Hill, N.C., 1966, p. 86 ff.

<sup>16</sup> Volunteer Community Activities Clearinghouse, Washington, D.C. This nonprofit organization regularly publishes a newsletter devoted to information on activities of volunteer organizations throughout the country. See *Volunteer's Digest*, vols. 1-4.

<sup>17</sup> Johnson, G. G., *op. cit.*, pp. 119, 120.

of the kind of imaginative approaches that are possible is that of the British Citizens' Advice Bureau of Great Britain. This is an intriguing integration of local volunteer services into Britain's social service system. The Bureau is a neighborhood center staffed by volunteer CAB workers who \* \* \* "make available to the individual accurate information and skilled advice on the many problems that arise in everyday life; \* \* \* explain legislation; \* \* \* help the citizen to benefit from and use wisely the services provided to him by the state." Although they are partially financed through the British Government, the CAB's are sponsored and run by local committees of individuals and representatives of both public and voluntary agencies in the area concerned.<sup>18</sup> Such agencies might be doing a yeoman's service in our Nation's ghettos. Many other problems in a diverse range of activities could be tackled with the imaginative use of volunteer resources, and there are many examples of this available.

There is growing evidence, particularly on the State and local levels, of recognition of the increasing role which can be played by volunteer manpower. At an annual conference on volunteer resources conducted by the Commonwealth of Pennsylvania, it was emphasized that there will be "a tremendous need" for volunteers in a wide range of ongoing and new programs which are emerging. The conference summary stated in part:

There will be an increasingly greater need and more important role for the volunteer in the future of this country. Vast sums of money are being made available to initiate new comprehensive programs and in every recent health and welfare law there has been a mandate to coordinate service at the local level \* \* \*. Therefore, the role of the volunteer must be expanded. There are many and greater opportunities for service. The fastest growing industry in America today is that dealing with health and welfare. The Department cannot get manpower if they pay for it. There are 35,000 registered nurses who are needed. If volunteer resources can develop this tremendous manpower pool it may be the only way to deliver the needed services. To achieve the excellence for which we strive, communities must be made to understand the true importance of the volunteer.

Here are some questions that you may want to ask yourself, "How can we enroll more and more volunteers in filling the need that exists today? How can we extend the service and still maintain the quality? What organizational patterns will best meet these needs? Is our current experience and utilization of manpower the one to follow if volunteers must assume added responsibilities? If not, what should the training include and are we as professionals willing to tolerate necessary charges in the light of the manpower demands?"

<sup>18</sup> For a more detailed description of this program, see *Volunteer's Digest*, October 1967, pp. 1-6.

Should there be regional training courses for volunteers so that they might be prepared to work either in our institutions, in nursing homes, in our youth development centers, in rehabilitation centers, or other community treatment programs?"<sup>19</sup>

Another area in which Government has done little about the emergence of volunteer manpower as a significant component of our human resources is in its research and statistical programs. We have already pointed out the virtual nonexistence of reliable data on volunteer labor in the United States. We need to introduce programs to measure the volunteer labor force, its output, its imputed value, and at a later stage, perhaps, its productivity. Research and training programs for volunteers may pay handsome dividends. At the very least, exploratory programs of this nature should be undertaken.

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<sup>19</sup> *Volunteer's Digest*, November 1967, p. 3.

## THE NEED FOR IMPROVED MOBILITY POLICY

BY C. E. BISHOP\*

The migration of people was one of the paramount factors contributing to the development of the United States. The flow of people across the oceans to this continent and the great western migration of the people across the continent made possible the development of its agriculture, the establishment of its industries, and the building of its cities.

The vast movement of people that has taken place in the development of this country, however, has gone on largely in an unguided and an unplanned manner. For the most part, it has been assumed that individuals and families possess sufficient knowledge to pursue the search for employment of their resources in an optimal manner.

Only recently has migration come to be recognized as a form of investment in human capital. Sjaastad emphasized that spatial differences in earnings for similar work would lead people to invest in transfer of resources over space and that this movement would tend to equalize the differences in earnings.<sup>1</sup> Migration is a means of augmenting the value of the human resource in the same manner that education, training, and changes in occupations increase the productivity and thereby the value of the human resource. Both geographic and occupational mobility, therefore, should be treated as investments in increasing the productivity of human resources. Since both involve costs and yield returns associated with changes in the productivity of human resources, the optimal pattern of investments in human resource development should consider increases in the productivity of the human resource through changes in occupation and location as well as through education and training. Resources are optimally allocated when the last expenditures for the different forms of investment in the human agent bring equal returns.

Rapid technological and economic progress in industry have important implications concerning the need for mobility of manpower. The response of manpower in adjusting to these technological and economic conditions may affect importantly the economic growth of the Nation, the structure of industry, and the distribution of income among the people.

The purpose of this paper is to summarize some of the findings of recent research pertaining to the occupational and geographic mobility of labor and to offer suggestions concerning programs needed to improve mobility.<sup>2</sup>

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<sup>1</sup> L. A. Sjaastad, "The Costs and Returns of Human Migration," *Journal of Political Economy*, vol. LXX, Supplement, pp. 80-93.

<sup>2</sup> This paper draws heavily upon papers prepared for the President's National Advisory Commission on Rural Poverty.

## THE LABOR MARKET IN RURAL AMERICA

Numerous studies have demonstrated that the U.S. population is relatively mobile. A recent study indicates that 15 percent of the family heads in the United States moved between labor markets during the period 1958 to 1963.<sup>3</sup> More than two-thirds of the family heads in the United States are living in labor market areas other than the one in which they were born.

Migration from rural areas has been very heavy in the United States. The manpower needs of farming are determined by the market conditions for farm commodities and the productivity of labor and other resources in producing farm commodities. Given the nature of the demand for farm commodities, the most important determinant of farm manpower needs in the immediate future likely will continue to be expansion in the use of capital and the accompanying increase in the productivity of labor. The development of technology which increased the productivity of capital relative to labor in the production of farm commodities has been the basic factor contributing to structural changes in farming. Technological innovations of a biological, chemical, and mechanical nature, and innovations in the organizational structure of agriculture all predominantly increase the productivity of capital relative to labor and provide incentives to substitute capital for labor and to increase the size of the farm firm.<sup>4</sup> While the elasticity of demand for labor in farming is relatively low and the substitution may not be very important in the short run, the elasticity increases rapidly over time as farmers are able to make the adjustments necessary to efficiently use the improved technology.<sup>5</sup>

Since the demand for farm products has been increasing rather slowly relative to the increase in the capacity to produce these products, and since the predominant impact of improved technology in agriculture has been to increase the employment of capital and decrease employment of labor in the production of farm commodities, the major burden of the adjustment to the changes in technological and economic conditions has fallen on the labor market. The major form of adjustment has been a sharp reduction in the amount of labor employed in farming and a concomitant shift of labor from farm to nonfarm employment. In many instances, these adjustments have involved geographic mobility in addition to occupational mobility.

## THE MAGNITUDE OF THE SHIFT

The transfer of the human resource from farming has been massive. Net outmigration has been so large that the base farm population declined rapidly from 31 million in 1920 to less than 12 million in 1967. The average annual net outmigration for the decade of the 1940's was 1.3 million persons per year compared with 1 million in the decade of the 1950's. During the current decade the average annual net out-

<sup>3</sup> Robert E. Marsh, "Geographic Labor Mobility in the United States, Recent Findings," *Social Security Bulletin*, No. 30, March 1967, pp. 14-20.

<sup>4</sup> C. E. Bishop, *Geographic and Occupational Mobility of Rural Manpower*, Documentation in Agriculture and Food, No. 75, Organization for Economic Cooperation and Development, Paris, 1965.

<sup>5</sup> G. Edward Schuh, "Inter-Relations Between the Farm Labor Force and Changes in the Total Economy," ch. 12, *Rural Poverty in the United States*, National Advisory Commission on Rural Poverty, 1967.

migration is approximately 750,000. However, the annual migration rate as a percentage of the farm population currently is as large or larger than it was in the 1940's and 1950's.<sup>6</sup>

In a study of transfers from farm to nonfarm employment, Hathaway and Perkins concluded that most of the people who make the transfer do not change residence. Although their study does not include farm residents who elected nonfarm employment at the time of entry into the labor force, the behavior of those who change occupations at the time of transfer from farm to nonfarm residences likely is similar to the behavior of other migrants. Those farm residents who are most inclined to change residence when transferring from farm to nonfarm employment are young, Negro, farm wage workers and those who reside in relatively prosperous rural areas in close proximity to employment centers.<sup>7</sup>

Persons working in the farm labor force as unpaid family laborers or as hired laborers are more inclined to migrate than owner operators.<sup>8</sup> Farm operators tend to be older, have larger investments in farms and in farm skills, have fewer alternative opportunities, and are less responsive to economic incentives to transfer to nonfarm employment than others in the farm labor force. Farmowner operators are among the least mobile of the occupation groups in the United States. Approximately twice as high a percentage of hired farmworkers migrate upon transferring from farm to nonfarm employment as farm operators. Schuh found that the shortrun elasticity of supply of farm operator labor with respect to nonfarm income is considerably less than the shortrun elasticity of supply of unpaid family labor and hired farm labor.<sup>9</sup>

Labor is not a homogeneous commodity. The characteristics of the people affect the productivity of their labor and also affect the demand for it. Although there is a heavy migration from the farm labor force, the size of the flow varies considerably from year to year and not all groups in the population participate in the transfer to the same extent.<sup>10</sup>

Characteristics of the population which are related to the mobility potential of that population includes sex, age, race, education, and training. The age distribution of the population in particular may exert an important influence upon its mobility potential. Migration involves costs as well as returns. Those in the younger groups have a longer working life after migration and, therefore, have a longer time in which to recover the costs of migration.<sup>11</sup> Furthermore, other things being equal, young people are given preference by employers. The young also have less investment in farming and may view the income foregone by transferring from farming as less than those with larger investments in farming.

<sup>6</sup> *Rural People in the American Economy*, Agricultural Economic Rept. No. 101, ERS, USDA, 1966, p. 9.

<sup>7</sup> Hathaway and Perkins, "Occupational Mobility and Migration From Agriculture," ch. 18, *Rural Poverty in the United States*, National Advisory Commission on Rural Poverty, 1967.

<sup>8</sup> G. Edward Schuh, *op. cit.*, ch. 12.

<sup>9</sup> G. Edward Schuh, *op. cit.*, ch. 12.

<sup>10</sup> C. E. Bishop, *Economic Aspects of Changes in the Farm Labor Force*, *Labor Mobility and Population in Agriculture*, ch. 4, Iowa State University Press, 1961, pp. 36-50.

<sup>11</sup> C. E. Bishop, *op. cit.*, p. 38.

The transfer from farm to nonfarm employment decreases rapidly with age. Hathaway and Perkins concluded that although about one-third of the persons under 25 years old moved out of agriculture each year, and in each successive age class there was a lower rate of transfer than in the preceding age class.<sup>12</sup> Since the rate of occupational transfer declines sharply with age, the major burden of reducing the number of farm operators and the labor input in farming has fallen heavily upon decreasing the number of young men entering farm occupations. Stated differently, the major means of decreasing the supply of labor in farming is to find nonfarm employment for farm youth entering the labor force.<sup>13</sup>

While the rate of outmigration from the farm population is higher for Negroes than for others, Hathaway and Perkins found that, other things being equal, mobility from the farm labor force to nonfarm employment was significantly lower for Negro farm wage workers than for others, especially during periods of recession.<sup>14</sup> It should be noted, however, that a relatively high percentage of the migration of Negroes was for long distances.

#### MAJOR DETERMINANTS OF MOBILITY

Many studies have been made of the factors determining transfers of labor among occupations and locations. From an economic standpoint, the choice among jobs and among locations is made on the basis of net advantage to the persons making the decisions. Basically, therefore, the determinants of occupational and locational transfers are those conditions affecting the supply and demand for human resources in various occupations and locations. The costs of migration on private account include the costs of job search, the direct costs of relocation, the opportunity costs of moving and changing occupations, the non-pecuniary costs of changing locations and leaving friends and relatives, the diseconomies associated with living in the new location and any costs involved in acquiring the skills necessary to perform effectively in the new job or new location.<sup>15</sup> Marsh found that "most people in the labor force who had crossed county lines gave job-related reasons for moving and \* \* \* it appeared that people with the strongest economic positions in terms of skill level and education were most likely to respond to economic incentives such as the opportunity for a better paying job."<sup>16</sup>

Several studies have emphasized the importance of employment opportunities and low unemployment rates in the areas to which migrants are attracted. Schuh found that increases in expected non-farm income lead to reductions in the quantity of labor supplied to agriculture, other things being equal.<sup>17</sup> Marsh found that most of the workers who did move between areas for economic reasons were attracted by lower unemployment rates rather than by higher pay scales.<sup>18</sup> Bishop found that, during periods when the rate of unem-

<sup>12</sup> Hathaway and Perkins, *op. cit.*, ch. 13.

<sup>13</sup> Marlon Clawson, "Aging Farmers and Agriculture Policy," *Journal of Farm Economics*, vol. XLV, February 1963, pp. 18-30.

<sup>14</sup> Hathaway and Perkins, *op. cit.*, ch. 13.

<sup>15</sup> P. R. Johnson, "Labor Mobility: Some Costs and Returns," ch. 14, *Rural Poverty in the United States*, National Advisory Commission on Rural Poverty, 1967.

<sup>16</sup> Robert E. Marsh, *op. cit.*, p. 16.

<sup>17</sup> G. Edward Schuh, *op. cit.*, ch. 12.

<sup>18</sup> Robert E. Marsh, *op. cit.*, p. 17.



ployment is above 5 percent, the earnings of labor in nonfarm occupations relative to farm occupations have little effect upon the rate of migration.<sup>19</sup> On the other hand, in a relatively full employment, economy increases in the returns for labor in nonfarm employment relative to farm employment provided incentives for increased migration from agriculture. In another study of migration, Sjaastad concluded that "there can be no doubt that employment conditions in the nonfarm labor market are a crucial variable for off-farm migration."<sup>20</sup>

All of the above studies suggest that the supply of farm labor to nonfarm firms is highly elastic at prevailing relative rates of return for labor in farm and nonfarm industries. Under these conditions, the actual migration is determined largely by the demand for labor in nonfarm employment. Furthermore, much of the nonfarm employment in the United States is governed by an institutionally established minimum wage. Employment, therefore, is limited to the number that employers can profitably employ at this wage. The behavior which one observes in the labor market in rural areas suggests that there is job rationing among migrants from rural areas.<sup>21</sup> In a sense, the farm labor force serves as a large pool from which nonfarm employers draw labor as needed. Nonfarm employers endeavor to obtain those workers whose productivity is highest from this pool. Since the institutionalized wage has not applied to agriculture, there has been free entry into the farm labor force. Consequently, the farm labor force has become increasingly a residual labor force.

#### THE MIGRATION PROCESS

Few would contend that decisions concerning migration are made in a well considered rational manner. On the contrary, there is increasing evidence that most decisions to migrate are based on very incomplete information. Furthermore, there has been no national program to provide information or other relocation assistance to potential migrants.

Marsh found that the planning period was "one month or less for about one-third of the moves reported; alternatives were not even considered in two-thirds of them; and, in over half of the cases, family heads who relocated consulted only one or even no other sources of job information."<sup>22</sup> He also noted that the more highly educated workers deliberated at greater length concerning migration and that they had greater access to specific information prior to migration.

Smith concluded that most farm migrants have little or no information concerning living conditions in the areas to which they migrate.<sup>23</sup> The vast majority of them do not have a definite job offer at the time of migration. However, a very high proportion of those who migrate have friends and relatives in the areas to which they go. These friends and relatives serve as a primary source of information concerning job opportunities.

<sup>19</sup> C. E. Bishop, *op. cit.*, p. 47.

<sup>20</sup> L. A. Sjaastad, "Occupational Structure and Migration Pattern," ch. 2, in *Labor Mobility and Population in Agriculture*, Iowa State University Press, 1961.

<sup>21</sup> C. E. Bishop, *op. cit.*, p. 40. Also, see W. E. Hendricks, "Income Improvement Prospects in Low-Income Areas," *Journal of Farm Economics*, vol. XXXI, December 1959, p. 1070.

<sup>22</sup> Robert E. Marsh, *op. cit.*

<sup>23</sup> E. D. Smith, "Nonfarm Employment Information for Rural People," *Journal of Farm Economics*, vol. XXXVIII, 1956, p. 815.

The out-of-pocket costs for moving from farm to nonfarm residences are small for most migrants in the United States. Nevertheless, many migrants have little capital to invest in the job search. Johnson suggests that under these conditions a farmworker is apt to apply a high internal discount rate to nonfarm earnings, and that when faced with a sharp decline in demand for his services in farm employment, he tends to move where friends and relatives have preceded him, dismissing differences among cities in costs and returns.<sup>24</sup>

There is no doubt that off-farm migration operates largely through an informal process dependent largely upon friends and relatives. The results are evident in the patterns established by migrants. The significance of established streams of migrants is demonstrated clearly in a study by Kain and Persky as follows:

The typical rural Negro lifetime migrant tends to move to large urban areas (greater than a million in population) outside of the South. The white movement is more diffused and has a marked orientation toward medium sized northern cities and the metropolitan areas of the South itself. While the southern born whites and Negroes each sent about 2½ million (2.61 and 2.47 respectively) individuals to cities larger than a million outside of the South (1950-60), only 0.42 million Negroes went to nonsouthern cities of between 250,000 and a million as compared to 1.42 million whites. Moreover, all SMSA's greater than 250,000 account for only 60 percent of the whites leaving the South as against 89 percent of the Negroes. With respect to movements within the South, only 0.86 million Negroes left their State of birth to move to southern SMSA's greater than 250,000 as compared to 2.86 million southern whites.

The 5-year-migration series (1955-60) suggests no recent alteration of the basic pattern. Thus, 25 percent of the white outmigrants from the South moved to rural areas in the North and West, as compared to 8 percent of the Negro outmigrants. Within the South southern cities account for 72 percent of all southern whites moving to urban areas, but only 55 percent of all southern Negroes. Moreover, there is evidence that Negroes moving North move in stages: first to a southern city, then a northern one. If this is so, the differences are even larger than indicated here. It is also important to note that these figures include considerable interurban migration. If the rural-urban stream could be isolated, it is likely that the pattern would become even sharper, with rural Negroes much less reluctant to move North than their white neighbors \* \* \*.

Fifty-eight percent of Negroes born in the South Atlantic Division and now living elsewhere, live in the four north-eastern SMSA's greater than a million (Buffalo, New York, Philadelphia, and Pittsburgh). Similarly, about 40 percent of the Negro lifetime migrants from the East south-central division have moved to the five East north-central SMSA's greater than a million (Chicago, Detroit, Cincinnati, Cleve-

<sup>24</sup> P. R. Johnson, *op. cit.*

land, and Milwaukee). Finally, about 36 percent of the same group from the West south-central division live in the four Pacific SMSA's greater than a million (Los Angeles, San Diego, San Francisco, and Seattle). Thus, not only have Negroes from the South moved to large metropolitan areas, they have moved along clear-cut lines to their destinations, forming at least three major streams, one up the eastern seaboard, another up the Mississippi River to Ohio and Michigan and one westward to California.

The pattern is more diffused than for whites. While whites from the three divisions also tend to move along these streams, there is a much greater willingness to cross longitudinal lines and to go to smaller places.<sup>25</sup>

#### MOVEMENT OF POPULATION TO RURAL AREAS

Migration involves a two-way flow of people. Studies of net migration are helpful in analyses of incentives for adjustment in employment of manpower. However, studies of gross migration provide better information on responsiveness of people to changes in economic and social conditions. Even if mobility were perfect, a substantial movement of people to rural areas could occur at the same time that a large exodus from rural areas was taking place. While a large movement of labor to rural areas in a country which is experiencing a mass exodus from these areas may be evidence of excessive mobility, mistaken expectations and social waste, such migrations also may reflect differences in tastes or personal characteristics of immigrants and out-migrants instead of a blackflow to rural areas.<sup>26</sup> Unfortunately, data are not available to separate those who move to rural areas because of their preferences for employment or living in those areas and those who return to rural areas because of disillusionment and disappointment in nonfarm employment. However, research demonstrates that there is a large gross movement of labor into as well as out of farm employment. For the period 1957 to 1963, the number of persons moving into farm employment averaged close to 90 percent of the number of persons moving from farm to nonfarm employment.<sup>27</sup> Earlier research established that most persons transferring from nonfarm to farm employment had formerly been employed in farming, but had failed to establish themselves in nonfarm jobs and moved back to farming.<sup>28</sup> Hathaway and Perkins concluded that "the proportion of off-farm movers who returned to farmwork decreased with city size. Employment stability increased with city size for all persons transferring from farm to nonfarm employment regardless of whether they changed residence. The authors concluded that those farm employed persons who rely on small local labor markets for a nonfarm job have the lowest probability of successfully moving out of farm employment. However, a high percentage of those who return from

<sup>25</sup> John F. Kain and J. J. Persky, "The North's Stake in Southern Rural Poverty," Ch. 17, *Rural Poverty in the United States*, National Advisory Commission on Rural Poverty, 1967.

<sup>26</sup> Hathaway and Perkins, *op. cit.*

<sup>27</sup> B. B. Perkins and D. E. Hathaway, "The Movement of Labor Between Farm and Non-farm Jobs," *Agricultural Experiment Station Research Bulletin 13*, Michigan State University, 1966.

<sup>28</sup> Hathaway and Perkins, *op. cit.*, p. 74.

nonfarm to farm employment try again to obtain nonfarm employment. For the period 1957 to 1963, 37 percent of those who moved from nonfarm to farm employment, were employed in nonfarm employment again 1 year later.<sup>29</sup>

In an earlier study, Hathaway concluded that workers who leave agricultural employment are more likely to find employment in industries that are subject to cyclical and secular downturns in employment and thus subject to layoff when labor force reductions occur.<sup>30</sup> Because a relatively large share of the migrants from farms in the South are long-distance migrants who are employed in the industries subject to heavy layoff, recessions have a relatively high impact upon the South.

#### THE GAINS FROM MOBILITY

Few studies have attempted to gage the private costs and returns associated with occupational and geographic mobility. The large number of persons who move back to farming suggests that many migrants become disillusioned with living conditions or earnings after migration.

Hathaway and Perkins found that more than 40 percent of those leaving farming had lower incomes in their nonfarm occupations the following year and that persons leaving farming after the age of 44 seldom are able to improve their earnings.<sup>31</sup> They also found that the earnings of a person in agriculture are a reasonably good indicator of his subsequent nonfarm earnings. Higher earnings were obtained by moving to the cities of more than 1 million in size.

In order to assess the returns from mobility, one should give consideration to all of the costs and returns associated with mobility. Osborne presents a fairly complete accounting of costs and returns for a sample of migrants in North Carolina. Although his analysis is concerned only with costs and returns on private account, his results indicate a return on investments made in mobility greater than 100 percent.<sup>32</sup> Thus, the migrants covered in this study could have recouped the costs of occupational and residential shifts during the first year after migration.

After studying the experiences of the North Carolina Fund in relocation projects in North Carolina, Johnson concluded that the return from the investments made in this project on private and social account were large enough to recoup the costs during the first year after migration.<sup>33</sup>

On the basis of their study, Hathaway and Perkins conclude that the normal operation of labor markets in transferring labor among occupations and locations does not serve to reduce income disparities within agriculture or between persons employed in farm and nonfarm occupations.<sup>34</sup> They conclude that in general the mobility process works less well for those who need it most and that it may well result in a widening of income differences among people and among areas.

<sup>29</sup> Hathaway and Perkins, *op. cit.*, p. 74.

<sup>30</sup> Dale E. Hathaway, "Occupational Mobility From the Farm Labor Force," ch. 5, *Farm Labor in the United States*, Columbia University Press, 1967, p. 34.

<sup>31</sup> Hathaway and Perkins, *op. cit.*, p. 79.

<sup>32</sup> D. D. Osborne, "Returns to Investment in Human Migration," unpublished Ph. D. thesis, Department of Economics, North Carolina State University at Raleigh, 1966.

<sup>33</sup> P. R. Johnson, *op. cit.*

<sup>34</sup> Hathaway and Perkins, *op. cit.*

PROGRAM DEFICIENCIES <sup>35</sup>

The studies of mobility leave no question concerning the fact that the rural population in the United States is highly mobile. In fact, there is an increasing body of evidence that suggests that migration is excessive as it now operates. The large number of people returning to farm employment and the fact that many had lower earnings in nonfarm employment than in farming suggests social waste in migration. The problem appears to be one not of increased migration, but of rationalizing the migration process so that a higher percentage of those who migrate actually benefit from migration. Several policy directions emerge.

The significance of cyclical and secular shifts in employment to successful migration is obvious. The attainment and maintenance of full employment is a necessary condition for a reduction in the backflow and for rationalization of mobility.

Since such a high proportion of those who migrate are in the younger age groups, it is imperative that a better job be done in occupational preparation. General education must be improved; training programs in rural areas must place greater emphasis upon nonfarm vocational training; testing and counseling programs must be expanded in schools in rural areas, and there should be effective coordination of counseling with consideration of employment opportunities through the services of the Employment Security Commission.

A nationwide comprehensive manpower program should be initiated to provide improved job information to potential employees. The well-established streams of migration in the Nation at the present time suggest that, in the informal system now guiding migrants, the pattern of dissemination of information has a more important effect upon who migrates and where they go than the potential increase in earnings. The high rate of movement back to rural areas suggests the need for reception centers, guidance counselors, and improved housing in the cities receiving large numbers of migrants.

The meager evidence that is available suggests that the return received from investments in mobility assistance programs far exceeds the return from investments in education and training. Public assistance in defraying certain mobility costs may contribute greatly to the success of mobility efforts. In particular, a system of relocation payments provided through, and based upon the advise and counsel of the Employment Security Commission, could yield very high returns for society.

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<sup>35</sup> For an elaboration, see *The People Left Behind*, report by the President's National Advisory Commission on Rural Poverty, Government Printing Office, 1967

# RELOCATION ALLOWANCES AND LABOR MOBILITY

BY MARTIN SCHNITZER\*

## INTRODUCTION

Government assistance to help low-income workers, or those who are unemployed and can find no prospect of employment in the home area, is a desirable yet conservative labor market policy. Although the United States has a limited program, still in experimental form, to help relocate and employ low-income or unemployed workers, Canada and the European countries employ relocation programs as a matter of public policy.

Relocation assistance refers to the provision of financial assistance to help a worker move to an area where jobs are available. It includes payment of transportation costs to the new area of employment, the cost of removal of the worker's household goods, and a starting allowance to support the worker until the time he gets his first paycheck. Often a family allowance is included to support the worker's family until the time he gets his first paycheck.

## THE RATIONALE FOR RELOCATION ALLOWANCES

There are several reasons for the use of relocation allowances to help unemployed or low-income workers move to areas where jobs are available:

1. In order to have a high rate of economic growth, there has to be a high degree of labor mobility. However, there is a bias against encouraging labor mobility as a method of dealing with regional unemployment. It is argued that it is easier to persuade industry to move to problem areas than it is to persuade the unemployed or the rural farmworker to move from these areas into a new environment. Financial inducements can get industry into a problem area, whereas the lack of mobility of the unemployed or low-income worker is not as easily overcome, since the immobility stems from an innate unwillingness of people to uproot themselves.

It can be argued, however, that some workers when given the alternatives between no work or part-time work in the home area, and full-time work in another area, will choose in favor of the latter alternative. This has been demonstrated by the success of certain labor mobility projects in the United States.

2. High mobility of labor as well as capital characterizes the purely laissez-faire economy. Yet in the mixed economies of today, Government intervention is directed toward the mobility of capital, leaving market forces to determine the mobility of labor. The assumption is that capital needs the inducements to locate in a particular area, but labor needs no particular inducement to leave the area.

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This reasoning, when applied to the type of person relocation assistance is designed to help, is absolutely wrong. The person who has been unemployed over a long period of time, or is making an income of less than \$3,000 a year, usually does not have the financial resources to support a move to an area where employment is available. He is also not aware of job opportunities elsewhere. Lack of financial resources and knowledge of existing employment opportunities are deterrents to labor mobility.

3. High rates of unemployment exist in certain areas of the United States as well as other industrial nations. To reduce these rates, it is necessary to employ a number of measures, since each measure by itself is likely to make only a marginal dent in poverty and unemployment. Supported movement of low-income or unemployed workers is a legitimate measure. If a worker can be induced to move from an area where he can make \$1,500 a year to an area where he can make \$3,500 a year, then the economy is better off. Even if he returns to his home area, the chances are that he has acquired some work habits that will improve his earnings capacity. The cost of the movement to the taxpayers is not a total loss.

It is necessary to point out that movement of workers, particularly those with little or no skills, into large cities with acute housing shortages, can compound the economic and social problems which exist. However, a rational labor mobility program would consider desirable alternatives, such as smaller cities which also have employment opportunities.

It is also argued that the movement of workers out of rural areas, or areas where unemployment exists, will depopulate them and will waste the investment of social capital. However, the shifts envisioned in a national labor mobility program is small. Assume that the objective is to reduce unemployment in a region from 5 to 2 percent, and assume that half of the unemployed are to be provided with jobs within the regions while half will leave. This means that only 1½ percent of the total labor force would move. An exodus on that limited scale is unlikely to lead to the wastage of social capital. Also, there is no compulsion for the worker to leave; it is left to his initiative.

It is argued that workers from certain types of areas—mountain or rural—cannot stand the transition from a rural to an urban type of living. If the worker leaves his home area to which he is tied culturally, he will soon return. It is pointless to try to relocate him; it would be better from a humanitarian standpoint to let him exist on welfare or provide him with some make-work-type of employment.

There is a considerable element of truth to the above argument. However, there is also a certain amount of defeatism involved. If the worker subsists on welfare or make-work employment, this can have a pervasive effect on his children. Poverty in effect will continue to breed poverty. Difficulty in adjusting to a new type of environment can be alleviated by providing counseling and supportive services. Hopefully, this would reduce the rate of return to the home area on the part of the relocatees.

## RELOCATION PROGRAMS IN EUROPE

The majority of European countries have had provisions for relocation allowances throughout the greater part of the postwar period.<sup>1</sup> Great Britain has had a program for moving unemployment workers since the early part of the 1930's. Although there has been a shift in emphasis toward the decentralization of industry and toward policies designed to encourage firms to locate in the depressed areas where supplies of unemployed or underemployed workers may be found, policies exist providing for the payment of relocation allowances to the unemployed, and in some countries, notably in Great Britain and Sweden, have been made decidedly more liberal in recent years.

Sweden considers the use of relocation assistance as a device to move unemployed workers out of areas with high unemployment to be an important part of its overall employment policy. The Swedes recognize the fact that not all depressed communities can be saved; therefore, a more feasible and less costly solution is to move the unemployed to areas with labor shortages. If the necessary skills are lacking, the unemployed are trained in the appropriate ones which are marketable in those areas.

Lack of adequate housing in the major cities and industrial areas is the main reason why relocation allowances have not been used on a wider scale in Europe. Reluctance to leave the home area is also a deterrent to mobility. However, this reluctance is primarily confined to older workers with strong family ties and attachments to the home area. Also, variations in religious and cultural patterns exist to inhibit mobility in several countries.

The rate of return to the home area after receiving relocation assistance averages around 20 percent in the European countries. However, the primary reason for the return also disguises the fact that some workers have acquired useful skills which would prove beneficial in acquiring a job when they returned home.

Canada also utilizes a program of relocation assistance. The problem of geographic distance is more acute than in the European countries, and almost any move on the part of a worker, unemployed or otherwise, would entail a considerable cost. The problem of regional unemployment exists, particularly in the Atlantic region and portions of Quebec. To encourage relocation of unemployed workers, the Canadian Government provides loans and grants—the former for the short-term unemployed and the latter for the long-term unemployed.

In Canada and the European countries, the expense of moving workers and the number of workers moved has been small relative to the total cost and number of workers affected of all employment programs. Nevertheless, national programs exist, and there is the underlying philosophy that when no employment is available in the home area, an unemployed worker should be assisted to move to an area where it is available. In several countries, the possibility of imminent unemployment is reason enough to support the movement of workers who would lose their jobs.

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<sup>1</sup> Martin Schnitzer, "Programs for Relocating Workers Used by Governments of Selected Countries," Joint Economic Committee, 89th Cong., 2d sess., 1966.



Relocation assistance has increased in importance in Great Britain and Sweden from the standpoint of financial outlays and the number of workers moved. In the national economic plan, which the Labor Government adopted for Great Britain, relocation assistance was expanded as a matter of public policy to stimulate labor mobility and the rate of economic growth. France has also broadened its program, with the creation of a national employment fund, which is designed to help workers adapt to structural changes in the French economy.

#### RELOCATION ASSISTANCE IN THE UNITED STATES

A national program of relocation assistance for unemployed and low-income workers does not exist in the United States. However, experimental labor mobility pilot projects exist in a number of States, and are financed under funds provided under provisions of the Manpower Development and Training Act.<sup>2</sup> Several basic assumptions underly the pilot projects which are as follows:

1. High labor demand in one locality can often be matched against excess labor supply in another area.
2. The financial cost of moving may often be a significant deterrent to the geographical mobility of unemployed workers;
3. The benefits to society of providing relocation assistance may more than compensate for the costs of such assistance; and
4. The willingness to relocate, the feasibility of arranging relocation to unfilled jobs, and other aspects of any mobility assistance program, may vary considerably by area and type of worker, so that varied exploration may indicate different values in different settings.

Demonstration projects sponsored under the Manpower Development and Training Act are designed to shed light on such assumptions. State employment security offices and private organizations in a number of States have conducted such projects. They seek to explore factors which affect the mobility of unemployed workers and their relationship to the availability of relocation assistance.

Several important questions must be answered in analyzing the success or lack of success of any relocation program:

1. What factors stimulate or impinge upon the geographical mobility of labor? In this connection, family ties, homeownership, lack of knowledge of existing job opportunities, and fear of the outside world would be factors that inhibit mobility.

2. How many workers remain on their jobs once they have been relocated? This question is the most important of all. A high rate of return to the home area will obviously defeat the purpose of relocation assistance.

3. How significant is financial assistance as a factor in promoting labor mobility? It is assumed that the type of person relocation assistance is designed to help would probably be insolvent because of an extended period of unemployment.

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<sup>2</sup>The 1963 amendment to the Manpower Development and Training Act included authorization for a program of labor mobility demonstration projects. Sec. 208 authorized the Secretary of Labor to carry out, in a limited number of geographical areas, pilot projects designed to assess or demonstrate the effectiveness in reducing unemployment of programs to increase the mobility of unemployed workers by providing assistance to meet their relocation expenses.

4. What type of worker—unemployed or low income—can be moved through the use of relocation assistance? In general, it can be assumed that younger workers with fewer family ties and a generally higher level of education, are easier to move than older workers.

5. What problems—financial, social, or otherwise—are met by relocated workers as a result of their moves? Relocation assistance is wasted if provisions are not made to smooth the transition in the environment of many workers from rural to urban. The adaptability of workers to a new and often hostile environment is certainly a key determinant in the success or lack of success of a relocation program.

The labor mobility demonstration projects have not followed a set pattern. Some have concentrated on moving unemployed workers within State boundaries, while others have moved unemployed workers to other States. Certain projects, such as the North Carolina fund labor mobility project, have attempted to move low-income workers, i.e., members of minority groups and tenant farmers, to areas where better employment opportunities are available. Projects have also used grants or loans, or both, to stimulate labor mobility.

Since the demonstration projects are heterogeneous in nature, it is possible to examine only a few which have been recently completed. These projects, however, give some insight into the possible use of a national program of relocation assistance.

#### WEST VIRGINIA DEMONSTRATION PROJECT

A labor mobility demonstration project which was recently completed in West Virginia illustrates two points:

1. Unemployment in certain parts of the United States is still high, even though the national rate is around 4 percent. The phenomenon of regional unemployment is not limited to the United States; in most major industrial countries, areas of unemployment exist which are well above national averages. In the United Kingdom, for example, the unemployment rate in northern Ireland is several times greater than the national average. Geographical isolation and a lack of an economic base make these areas unattractive to industry.

2. Unemployed workers, with little or no hope for future employment in the home area, are willing to move to an area where employment is available.<sup>3</sup> The deterrents to mobility are lack of knowledge of employment alternatives elsewhere, and a lack of financial resources to support a move.

The West Virginia labor mobility project began in March 1966. It was designed to serve an eight-county, coal-mining area in the southwestern part of the State, which was suffering from above-average unemployment. The counties involved were Logan, Boone, McDowell, Wyoming, Mingo, Fayette, Raleigh, and Mercer. The average unemployment rate in these counties in 1966 ranged from 14 percent in Fayette County to 5.4 percent in Wyoming County. Although these rates were down substantially from the rates that existed during the first part of this decade, they were still well above the national average.

<sup>3</sup> A willingness to move must not be confused with a willingness to stay moved. Only time will tell whether the latter has been accomplished. Since the demonstration projects are experimental, no current hard and fast judgment can be made.

Probably the key factor in reducing the unemployment rate in the eight counties was the extensive outmigration which occurred during the last 15 years. From the period 1950 to 1960, the population of the eight counties had decreased from 548,129 to 444,034. During this period the net migration rate for McDowell County was 38.2 percent, and Logan County, 32.1 percent. Estimates for the period 1960 to 1964 indicate an additional decline of 35,534.

High unemployment rates, sporadic employment opportunities, and low labor force participation rates have resulted in a low standard of living for a large percentage of the area's population. In 1960, out of the total number of 103,683 families in the area, 40,297, or 38.9 percent, reported family income of less than \$3,000 a year. In 1965, 48 percent of all wage earners had incomes of less than \$3,000 a year.

During the period from March 1966 to April 1967 the West Virginia Department of Employment Security conducted a demonstration project which had as its objective the movement of unemployed workers from the eight-county area mentioned above to jobs in other States.<sup>4</sup> The form of financial assistance that was provided took the form of a 100-percent loan which was to be converted into a 100-percent grant 180 days after relocation, provided that the worker remained on the job. Payment took the form of a travel allowance to the worker for moving to the new job, a lump-sum allowance to defray the cost of separate maintenance for the worker and his family, and an allowance to cover the moving of household goods.

Relocates were selected from a population which consisted of the following characteristics—unemployment insurance claimants, welfare recipients, and MDTA training graduates. Six full-time labor mobility interviewers were assigned to coordinate mobility activities in the local employment security offices in the eight-county area. The number of workers that were relocated amounted to 568 out of a total of 1,518 workers who expressed a willingness to move.<sup>5</sup> They were sent to 20 States, including West Virginia, and the District of Columbia. Supportive and counseling services were provided by Travelers Aid. The major responsibility of this organization was to provide pre-migration social guidance to labor mobility applicants, and coordinate with cooperating agencies in other States for postmigration services.

Of the 568 workers who relocated, 163 were unsuccessfully located. Most of those who were unsuccessfully located returned to the home area. The reasons for unsuccessful location were varied, but lack of housing led the list, and dislike of the job was second.<sup>6</sup> Over half of the unsuccessful relocations occurred during the first month, and 32 percent were unsuccessful during the first week of relocation. In the age category 20 to 24, 173 workers were relocated and 44 returned home; and in the age category 35 to 44, 103 workers were relocated and 38 returned home.

The average new wage of the relocates was \$2.25 an hour compared to an average old wage of \$1.61 an hour in the home area, when employment was available. The average number of weeks unemployed per relocatee was 26. An important point in this connection can be

<sup>4</sup> This was the second project. The first one ran from Apr. 15, 1965 to Sept. 30, 1965.

<sup>5</sup> Ninety-seven percent of all persons interviewed expressed a willingness to move to another area for employment.

<sup>6</sup> The term "unsuccessful" perhaps may be misleading as several relocates were drafted and others returned for a variety of reasons.

made. The longer a relocatee was unemployed in the home area, the more likely the relocation would turn out to be a failure.

The following points can be made with reference to the West Virginia labor mobility demonstration project:

1. Unemployed workers, who were for the most part coal miners, in the mountainous area of southern West Virginia were willing to relocate to secure employment.

2. Financial assistance was of paramount importance in influencing workers' decision to relocate. This perhaps is obvious since unemployed workers are not likely to have much savings.

3. Workers under 35 were easier to relocate than older workers.

4. The cost of the average relocation, which amounted to around \$300 is well worth the investment when compared to the alternatives of no employment and prolonged welfare benefits.

5. The rate of return was high, but can be reduced with the provision of adequate housing and a supportive program of social services.

However, it is again necessary to point out that the West Virginia project, and others like it, are experimental in nature. However, the pattern that emerges is similar to patterns for well-established European programs, so that we can conclude that many unemployed or low-income workers will move to an area where employment is available if given the financial opportunity to move. This hardly argues for the depopulation of an area as many critics of relocation contend.

In labor mobility projects that focused on moving low-income workers, i.e., members of minority groups and tenant farmers, to areas where better employment opportunities were available, the income differential between the old and the new income was often two to three times as great in favor of the latter. The North Carolina fund labor mobility project is a case in point. This project concentrated on the movement of workers—mainly poorly educated and low-skilled Negroes and Indians—from rural counties into more prosperous areas of the State.<sup>7</sup> The average income of these workers in the home area was less than \$2,000 a year. In the area of relocation, the average income of the relocatees increased to \$3,300 a year.

Rural poverty is also a problem in the United States. A many-pronged attack is necessary to eradicate it. Relocation assistance to support the movement of workers from rural areas with limited employment opportunities is a part of the solution. However, vocational training is a necessary concomitant, for it would be undesirable to move workers into unskilled dead-end jobs.

## CONCLUSIONS

The success of a national program of relocation assistance to move unemployed and low-income workers depends upon several factors which are as follows:

1. A commitment to an active and continuous use of fiscal and monetary instruments to help keep demand at levels that will make

<sup>7</sup> Receiving areas were Greensboro, Charlotte, High Point, and smaller cities, where labor is in short supply. It does not necessarily follow that the ghetto problem in large cities will be compounded by a relocation program, for the reason that selectivity in relocation can be used.

full use of the economy's potential—and keep that potential growing—without inflation.

2. An emphasis on vocational education and job training to improve the skills of the rural poor and minority groups. Unfortunately, not nearly enough support has been provided in this area, for we are imbued with the notion that every American boy and girl—qualified or unqualified—should go to college. In most high school curriculums, little attention is given to vocational guidance and training. This should change.

3. An improvement in supportive services to make the environmental transition easier for the relocatee.

The program should be administered by State employment offices. Coordination between the employment offices of all of the States would facilitate the matching of unemployed workers to available jobs. Grants rather than loans should be utilized for the reason that the typical monetary amount involved in relocation is small and the cost of administering loan repayment is large. The grant also would provide a greater inducement to mobility than a loan. However, receipt of the grant should be tied to a stipulation that the relocatee remain in the new area of employment for a specific period of time.

## GRANTS VERSUS EXCHANGE IN THE SUPPORT OF EDUCATION

BY KENNETH E. BOULDING\*

If we take any segment of the economy such as education it is clear that there is some sense in which its accounts must balance, at least in the long run. Every segment of the economy must draw inputs from the rest of the system in the shape of labor and materials, having a certain dollar value. Corresponding to these inputs there must be an equivalent value of outputs of some sort. If for the moment we think of this process in terms of money flows, then corresponding to the inputs there will be outflow of money, and unless there is an equal inflow of money from various sources, the money stocks of the segment will soon be exhausted and it will no longer be able to continue the purchase of inputs. The input of money into a segment, however, can come from three major sources. 1. It can come from the sale of currently available goods or services. 2. It can come from borrowing, which is roughly equivalent to the present sale of future goods and services. If we borrow a million dollars now we will have to sell something over a million dollars of goods and services at some future date in order to repay the loan with interest. 3. Money can be received from grants, a grant being a one-way transfer for which nothing tangible or measurable is given in exchange.

The distinction between exchange and grants is very fundamental in economic life although it has been surprisingly neglected by economists. Exchange is a two-way transfer. A gives something to B and B gives something to A. A grant is a one-way transfer. A gives something to B and B makes no tangible transfer in return. The distinction between exchange and grants is not always clear. Many things, for instance, which look like grants in the short run such as the support of children by their parents in effect are deferred exchange or investments, for in some societies at least the parents expect their children to support them in their old age. In a great many grants also there are intangible and unmeasurable benefits which are returned from the grantee to the grantor. Thus a gift of charity to a beggar returns to the giver a certain intangible return in the shape of status or self-satisfaction or a warm feeling of having done the right thing. These intangible things do not constitute reallocations of assets so that even though there may be difficult marginal cases, by and large the distinction between grants and exchange is fairly easy to make.

The "grants economy," that is, that part of the economic system which consists of grants, has been steadily rising in importance, especially in the 20th century. Depending somewhat on the definitions which we use (according to one estimate in 1966 it was about \$100 billion), the grants economy accounts for a little less than a sixth of the gross national product. In billions of dollars this represents individ-

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ual grants 10.6, corporation grants 0.8, foundation grants 1.2, and government grants 87.6. We must be careful not to interpret these figures too literally as this represents very heterogeneous collections of activity, some of which certainly ought to be placed in the exchange sector. By contrast in 1929, the total of grants in the United States was barely 5 billion, which was about one-twentieth of the gross national product. We obviously have here a phenomenon of great importance and yet one which has received surprisingly little attention in its total impact.

Unfortunately, my studies of the grants economy have not yet proceeded to the point where I can give a figure for the education sector, though in view of the enormous predominance of public schools at the primary and secondary level and even the extensive subsidization of higher education, it will be surprising if the figure for the proportion of the total receipts of the education sector which comes from grants will be less than 90 percent. Outside of national defense, which is, of course, almost wholly a grants economy, education is probably the largest segment of the economy which is almost completely dominated by grants. It is all the more important, therefore, that we take a look at some of the conceptual and theoretical problems which are involved in the grants economy, particularly as these affect education.

We can begin by asking: "Why should there be a grants economy in the first place? Why should anybody make a one-way transfer for which he does not get anything tangible in return?" The most obvious and perhaps the most satisfactory answer to this question is that a grant is an expression of community or human solidarity. It is an expression of the fact that individuals are not self-sufficient in their identity but in order to obtain a satisfactory personal identity they have to identify in some degree with other people. This widening of the personal identity to include others may also quite legitimately be described as "benevolence," a phenomenon which can be defined objectively, not as a Pickwickian emotion, but as a property of a utility function. When welfare or utility is increased, when I perceive that the welfare of another person is increased, then I am technically benevolent toward that person. The parent who takes satisfaction in the welfare and achievement of his children, the citizen who gives to relieve the poor, the person who gives to an organization with which he identifies are all expressing the benevolent aspect of human behavior by which the personal interest is expanded to some kind of community. Without this kind of identification it is indeed doubtful whether community could exist at all. Benevolence, of course, has a negative aspect—malevolence—which exists when one person regards his own welfare as increased in the contemplation of the diminution of the welfare of another. This also, unfortunately, is an important aspect of human behavior, especially in the international system and is a sign of what we might call negative community.

Exchange tends to be neutral on the benevolence-malevolence scale. As Adam Smith says in *The Wealth of Nations*:

It is not from the benevolence of the butcher, the brewer, or the baker, that we expect our dinner, but from their regard to their own interest.

Malevolence, of course, may destroy exchange, as we see in the current hostility of many people toward trade with the Socialist countries even though this would be mutually beneficial. Those people who feel malevolent toward the Socialist countries would rather have us injure ourselves so that we may injure them more. Exchange is best developed when there is a mild degree of benevolence in a society, enough at least to make us polite to the store clerk and trusting of the banker. On the whole, though, exchange does not require much benevolence, simply because there is no sacrifice involved. In exchange, indeed, each party benefits so that there is very little in the way of redistribution even though some problems arise in regard to the distribution of the benefits from exchange. Thus in collective bargaining, for instance, in the labor market, some malevolence frequently develops between the employer and the employed and if this goes too far the whole industrial relationship may break down into destructive strikes and sabotage. The very fact that uncoerced exchange is beneficial to both parties, however, exercises a constant pressure toward the diminution of the malevolence that so clearly is costly to all sides. This probably accounts for the development of the kind of live-and-let-live neutrality which is characteristic of most of the American labor scene today.

Benevolence, of course, is not sufficient to explain grants to education. Here we must pause for a moment to consider the role of the tax system in the grants economy, for education is largely financed, not out of voluntary grants, but out of taxes, which might be described as involuntary grants. The tax system occupies a somewhat uneasy midpoint between what might be called the threats economy and the grants economy. At one end of the scale we might have a situation in which taxes were collected by pure threat, in which the taxpayers did not identify in any sense with the objectives of the taxing authority and in which the taxes were paid simply because of the fear of consequences of not paying them and for no other reason whatsoever. A country occupied by a foreign power, the policies and principles of which were repugnant to most of the inhabitants, would be such a case. Here there would be no sense of community with the authorities and taxes would only be paid out of response to threatened consequences. At the other extreme we have something like the United Fund where there is a slight element of threat in the sense that the person who does not contribute often receives sneers or hard looks or a low opinion of his character, but where on the whole the grant is given because of a certain sense of identification with the purposes for which the grant will be used.

The tax systems of democratic countries fall somewhere between these two extremes. Certainly if they were to rely on United Fund techniques of raising money for government, the collections would be much less than they are now. On the other hand the threat system which enforces the collection of taxes is not a naked threat, but it is legitimated in some sense, especially insofar as the taxes are voted by the representatives of the people. The people then have a kind of a counterthreat against the Government, as a good many Congressmen are feeling at the moment. Here we run into a rather odd principle which we might call that of voluntary coercion. There may be sufficient identification with the purposes of the tax-collecting authority so that most people will be willing to pay taxes if everybody else paid them. If taxes were placed



on a purely voluntary basis, however, a good many people would avoid paying them, even though they might believe in the purposes for which they were being collected, because the purpose might still be fulfilled even if a single person did not pay his taxes. Under these circumstances a system of legitimated coercion may be quite rational and, indeed, to a considerable extent this is what we have.

In a well-integrated democratic society, therefore, it is by no means unreasonable to regard taxes as a segment of the grants economy, a little different no doubt from voluntary contributions, but nevertheless also representing a sense of identity of the individual with the community and with the purposes of the community. On the other hand, there are limits to this sense of identity at which point the community begins to run into tax resistance, taxes become not merely personally unpopular, as they always are, but generate a strong sense of malevolence toward the existing officers of government. A political party which neglects this tax resistance may easily find itself voted out of office. In extreme cases, tax resistance may take the form of greatly increased and privately legitimated evasion, or it may even take the form of deliberate defiance of government in tax refusal or "voting with the feet"; that is, emigration. There are a good many signs at the moment that we are reaching some boundary of tax resistance in the United States, both at the Federal and at the local level. The Vietnam war has not unified the country behind the Government. It has, indeed, divided it and there is widespread resistance to the present objectives and purposes of the administration. At the local level we find increasingly that bond issues and millage increases are being voted down, which again are symptoms of the fact that there is a growing lack of identity of large members of people with purposes of the taxing community.

In this situation the education "industry," if we may use so undignified a term, is in a curiously ambiguous position. On the one hand, there is a long tradition in the United States of identification of individuals with the purpose of public education, and a striking willingness to submit to taxation for this purpose. Hardly anyone will question, not even the extreme rightwing, that in this country education is a proper subject of subsidy; that is, for grants. On the other hand, in real terms it is clear that education participates in the exchange economy simply because education is an investment. Many studies have shown that almost every year formal education, at least up to the level of the M.A., increases the life income of the educated person. In this sense, education is an industry which produces a product which can be valued in dollar terms, that is, in terms of the increased income of the educated person, as well as producing intangible products in the shape of the good life, a greater capacity for enjoyment, and a greater ability to make good decisions. It is a good general principle that the best cases for applying grants are those in which an activity produces intangible and inappropriate benefits. We regard contributions to churches, for instance, as being largely in the grants economy (though there may be some argument about this), mainly on the grounds that the benefits which are received from religion cannot be evaluated in dollar terms and hence will not be elicited in response to pure market or exchange institutions. National defense, likewise, cannot be evaluated in market terms. Education, however, is mixed from this point of

view. Some of its benefits cannot easily be evaluated, and some of them can be measured in dollars without difficulty. A legitimate question can be raised, therefore, as to whether we have achieved the appropriate mix of grants and exchange in the educational industry, or whether what we have today is simply not a leftover from an earlier period, and requires serious reexamination.

The case for this reexamination is reinforced because of the rise in both the size and the cost of the educational industry, a rise which is likely to continue and perhaps even to accelerate. The expansion of the total resources devoted to education arises from two sources. One is the fact that in the modern world human knowledge is the major source of productivity. Hence investment in human resources has become recognized as not merely a legitimate, but an essential form of investment, the limits of which have by no means been reached. Furthermore, the growth of knowledge itself means that a larger proportion of the resources of society have to be devoted to maintaining it and replacing it. Every year a substantial proportion of the knowledge stock of society is removed by death, aging, retirement, and human obsolescence. Even if the knowledge stock were to be simply maintained and prevented from decay, therefore, an increasing proportion of the activities of society would have to be devoted to education as the knowledge stock itself rises. The rate of growth of the stock of knowledge, however, has itself been increasing dramatically. In the first millenium of our era, it probably took about a thousand years to double the stock of human knowledge. Today in many fields knowledge doubles in less than a generation. Under these circumstances the proportion of resources which have to be devoted to the simple maintenance of the stock increases all the time and seems to increase at an accelerating rate. We certainly cannot see any end to this process at the moment. We may expect, then, in the next hundred years that the proportion of resources devoted to education will continue to increase dramatically simply to prevent the loss of what we already know. For every physicist who dies, for instance, we must train up a new physicist to take his place at the cost, perhaps, of 25 years of formal education.

The second reason for what almost might be called the education explosion is the fact that, technologically, education is not a rapidly advancing industry. Its techniques, indeed, have changed very little even since the time of Plato. There are some signs of technological change now in the shape of teaching machines and programed instruction, but these increases in productivity are relatively small and may not even do much to diminish the cost of education. Because of this backwardness in technology, which may incidentally be something quite inherent in the nature of the process, not merely the result of the fact that we have not devoted much in the way of resources to it, the unit cost of education relative to agricultural and manufacturing commodities, especially, continues to increase. Hence what might be called the real burden of education rises even faster than the quantitative increase of the industry itself. The financial crises which education is encountering and which seem likely to deepen in a spectacular way in the next 25 years if nothing is done about it, is mainly a reflection of the increased size and the increased burden of the industry. A system

of finance which is quite appropriate for a small establishment may be quite inappropriate for a large one.

It is this increase in the relative size and the burden of the educational industry, therefore, which is forcing a reexamination of the extent to which it should be financed by grants and the extent to which it should be financed through the exchange mechanism. If, as I suspect is the case, a grants economy reaches a limit at a certain point and the supply of grants as it were becomes inelastic in response to the demand for them, we may have to face much more seriously than we have done hitherto the possibility of shifting part of the educational industry onto an exchange basis rather than supporting it through a grants economy. Fortunately, it would seem that this could be done fairly easily, simply because of the fact that education for the individual who undertakes it is an investment, in terms of increasing his income with a fairly high rate of return. Investments, however, which have a high enough rate of return can be financed through financial mechanisms; that is, through some form of borrowing, and there seems to be nothing inherently inequitable about this. On the other hand the conventional financial instruments and the conventional forms of borrowing are clearly inappropriate to investment in human resources, simply because of the long time periods involved and the peculiar nature of the risks. It is for this reason that the private financial sector has not produced financial instruments or institutions such as educational banks in the way in which it has produced mortgage banks and a large financial apparatus for investment in housing.

Thus, education would seem to be an example of a segment of the economy where private financial institutions, for very good reasons, are not able to adapt themselves to meet financial need. There is a case here, then, for the development of what might be called a public exchange economy. All Government operations do not consist of grants. Many of them, indeed, such as social security have only a relatively small grant element and consist essentially of what might be called a public deferred exchange system. Education would seem eminently suitable for such an arrangement and proposals such as that of Professor Killingsworth should receive very serious consideration. Most of these proposals involve the setting up of a public educational bank which would be prepared to extend loans to any qualified student in sufficient amount to enable him to continue his education for as long as it seems profitable for him to do so. These loans would then represent not a chattel mortgage, which is quite inappropriate to the human person, but a general claim on future income which could easily be satisfied by a 1- or 2-percent addition to the person's income tax over a fairly long period of years which would then, of course, be repaid to the educational authority. This avoids the unpleasant implications of the chattel mortgage and it represents a distribution of the burden of repayment which is in proportion to the economic success of the education. This is more like ordinary share financing than it is of bond financing, but there seems to be nothing inappropriate in this.

There are many practical problems involved in schemes of this kind and a great many details which need to be worked out, especially regarding the conditions and the rules for granting the educational loans.

The success or failure of the system, indeed, may well depend on success in working out these details, and we should certainly not assume that this is necessarily going to be any easy problem. Nevertheless, the payoffs of this system would seem to be so great that it deserves a most serious consideration.

Proposals for an educational bank do not in any way imply that the whole finance of the educational system should be removed from the grants economy and put over into the exchange system. The critical problem of the political decisionmaker here is that of the appropriate mix of grants and exchange. There is certainly no reason why a national educational bank should not be combined with extensive subsidies either to educational institutions themselves or to students. There are, however, problems here which need a great deal of thought, especially in regard to the impact of a system of student-centered finance on the structure and the policies of the educational institutions themselves. There is a good deal to be said for the argument that the deficiencies of the educational system are, in part, a result of the fact that it has been too monopolistic and made too much use of the police power and has not relied on the competition of educational institutions for students. I am not suggesting, of course, that the educational system can be governed by wholly perfect competition, which would be absurd. Nevertheless, if students were able to pay for their own education because of reform in the system of educational finance, this would unquestionably have a very marked effect on the nature and the performance of the educational institutions themselves. They might need to be protected under these circumstances from too much student domination: if the student is a paying customer, would he be always right? One has an uneasy suspicion, however, that a little competition from students might be good for both schools and universities.

The purpose of this paper has been to raise questions rather than to answer them and unfortunately a good deal of the information which is required to give answers to these questions does not yet exist. We now need a period of serious questioning and research in regard to the whole educational industry and there are many encouraging signs that this is beginning.

# THE PUBLIC FINANCING OF HIGHER EDUCATION

BY ROGER E. BOLTON\*

Although it may be dangerous to ascribe motives to the public in our political system, I would like to group the motives of the public in subsidizing higher education into two broad categories. These categories are suggested by the conventional economic analysis of subsidies. First, subsidies may improve the allocation of resources and make it more efficient. The aggregate economic welfare of the population in the long run may be increased if subsidies induce the production of more higher education in the present. Second, subsidies to the buyers of higher education may be a preferred method of income redistribution. Redistribution can be a legitimate goal even if it conflicts with better allocation; that is, even if subsidies decrease the aggregate of real income. General economic theory, such as that of the Pareto Optimum, certainly does not justify efficiency of allocation as the sole goal of economic policy, and efficiency may be sacrificed, if it must be, for better distribution.

Although the two goals of efficiency and satisfactory distribution must be simultaneously considered when evaluating policies, for simplicity I shall first suggest appropriate forms of subsidy assuming that efficiency is the only goal, then introduce the changes which equity seems to call for.

## IMPROVING ALLOCATION

### CORRECTION FOR EXTERNAL BENEFITS

Public aid to higher education cannot be justified on the grounds higher education is a good thing, or on grounds it is investment which yields high returns in the future. The same can be said of many other goods which traditionally are not supported by the State. What is special about education is that society cannot rely on the normal market process to reward the educated person for all the benefits he provides. The educated man contributes to the good of society in a greater measure than his own income (pecuniary or psychic) indicates. The many advantages of having educated people are clearly felt, but cannot be traced back to the individuals responsible in a detailed and accurate enough fashion to make equitable compensation practicable.<sup>1</sup> Some of the total social benefits are thus "external" to the individual.

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\* Williams College. All views expressed are mine alone, but I have benefited greatly from comments by friends at Williams, The Brookings Institution, and elsewhere.

<sup>1</sup> In the general context of such difficulties in compensation as a cause of externalities, see Harold Demsetz, "Toward a Theory of Property Rights," *American Economic Review*, vol. LVII, No. 2 (May 1967), pp. 347-59, and Francis Bator, "The Anatomy of Market Failure," *Quarterly Journal of Economics*, vol. 72, No. 3 (August 1958), pp. 363-5, 369-71.

If young people and their families are left to make decisions on investment in education based only on expected future income returns, too little education will be demanded. Some higher education which would be socially worthwhile will not be attained because it is not personally worthwhile. Some young persons will not attend college at all. Some will attend a lower quality college than they could. Some will go fewer years than they could. Or there will be combinations of all these. The external benefits which society reaps from education are lost if the education is not attained, and by offering subsidies society induces the production of education which returns to it total benefits of more value than the cost of the education. Society has relied on both gifts from wealthy, public-spirited individuals and on funds raised by taxation for this purpose. The inducement is almost always accomplished by allowing families to purchase higher education at a price lower than the full cost.

While in theory it is possible to take another approach, of augmenting the incomes of educated people *after* they are educated by giving credit for earlier education (over and above the higher *wages* educated persons receive because they are more productive in the view of their employers), this is not done. As far as higher education is concerned, much of the external benefit is reaped only if the educated do work, making it necessary to preserve incentives to work. If using posteducation payments eroded the incentives, the external benefits might not be reaped after all.

The often cited external benefits of education in the "better citizenship" area seem more dependent on elementary and secondary than on higher education. However, teachers for the schools are trained in the colleges. In addition, recent investigations of the sources of economic growth have revealed the large contribution from something other than physical inputs. However, one traces this residual factor to specific things, education is usually given some credit, and in fact higher education. Growth is accelerated by the discovery and diffusion of new knowledge, some of which is complex enough to require education beyond high school for discovery and efficient incorporation into production methods. And higher education may increase the smooth adaptation to new technology merely by creating a general receptiveness to change. The national defense also requires the kind of research and development that only higher education equips people to do.

If the external benefits of applying new knowledge and increasing national defense capability were realized only through organized *research* by educated people, they could be corrected by subsidizing research instead of higher education. If research were publicly financed, and all its external benefits considered by the public decisionmakers, the wages paid to scientific and technical workers would be high enough to induce people to become educated in the right fields. Subsidy of the education itself would not be necessary, for the expected salaries would offer sufficient inducement. The same point can be made about the wages paid to teachers in publicly financed elementary and secondary education. However, not all the external benefits of higher education are dependent on organized research or teaching, so there is still need for a subsidy to education. And even in science and technology, a reserve of educated manpower is essential for national de-

fense because the pipeline in training new manpower is so long. Young people may be more aware of lower prices for scientific education than future salaries of scientists, so that defrayment of the cost of education may be a quicker and safer way.<sup>2</sup>

#### FORM OF SUBSIDY FOR EXTERNAL BENEFITS

The amount of subsidy should be as large as the external benefits are. If the public is confident that private benefits are only  $p$  percent of the total benefits, the allocation of resources will be improved if the individual can buy the education at a price only  $p$  percent of the total costs, the remaining share being financed by the public with the subsidy. The role of the subsidy is to increase the incentives to invest, by reducing the relative price of education to the family.<sup>3</sup>

Perhaps this offers little guide to practice. But if one accepts that higher education confers both private and external benefits, then one can at least conclude that families should finance some of its costs on their own. Higher education is a difficult intermediate case, like neither candy or automobiles, which are financed privately, nor national defense, which is at the other end of the public-private spectrum. Public assistance in financing higher education is essential, but there is no argument on efficiency grounds for sole reliance on the public. This does not preclude 100-percent subsidies to some families on income redistribution grounds, of course. And by itself it does not even preclude free *tuition*, because tuition is not 100 percent of the costs. However, if tuition is the part of cost which varies with quality of education, and if higher quality brings more private benefits, then aside from income distribution there should not be free tuition.

The cost of education includes an opportunity cost, the labor earnings the individual could earn if he did not go to college. An appropriate value for this should be included in the base for the subsidy. In practice, it might be assumed opportunity costs are the same for all persons of a given age and previous educational attainment. Differences in institutional costs cannot be ignored, however, because they are large and are correlated with the quality of the external benefits which society will lose if the education is not attained. In principle,

<sup>2</sup> For more discussion of these points, see Alice Rivlin, *The Role of the Federal Government in Financing Higher Education*, The Brookings Institution, Washington 1961, pp. 137-9.

<sup>3</sup> Assume the present value criterion is used in making decisions on investment in education. Benefit-cost ratios for the private investor are  $(100-p)$  percent lower than the social benefit-cost ratios if only  $p$  percent of the social benefits show up in private income. If the private costs are reduced by  $(100-p)$  percent, the private benefit-cost ratios are equal to the social ones, and any "project" which passes the social test will also pass the private one.

Income taxation naturally reduces the private benefit-cost ratios for all investment below the social ratios, unless the capital costs are fully deductible immediately. Our tax laws treat educational investment and physical investment differently. In the former, some capital costs are fully deductible (rather, exempted) immediately, since the opportunity earnings costs are not taxable at all (we use actual, not potential, income as the tax base). The other capital costs—tuition and related fees—are usually never deductible if they are paid for general education. In the treatment of physical investment, all capital costs are deductible, but only over the lifetime of the asset and not immediately. Thus, the present treatment does not bias against higher education, relative to ordinary business investment, as much as is often assumed and perhaps not at all in some cases (this point is discussed by Gary Becker in *Human Capital*, National Bureau of Economic Research, Columbia University Press, New York, 1964, p. 149). However, tax treatment is probably not usually favorable enough to offset the effect of external benefits. The variation in tuition costs with quality of education is important here, because tuition costs are not deductible. If quality is important for external benefits, the tax treatment does not offset some of the biases due to externality. The tax treatment presumably gives people more incentive to incur time costs, or to forgo earnings, than to incur tuition costs.

measuring these costs should be easier anyway, because there are many fewer institutions than students and all of them account for their expenditures. But here too there will be difficult problems in practice. If the State extends its subsidy by operating a low-tuition institution, just which costs it incurs are properly costs of higher education? If the State gives a grant to a student, what payments he makes to his institution are eligible for subsidy? What is an acceptable institution in the first place? What of costs of athletics? Drama? Museums? What kinds of course loads have the same cost and value? In the day-to-day administration of any subsidy scheme, these questions will be very important, as experience under the GI bills shows (even now there is reported disagreement between institutions and the Veterans' Administration on what is a full course load which qualifies the veteran student to full allowances). Rules of thumb must be devised, at the risk of stifling educational innovation.

Problems will also crop up in determining what living costs are truly marginal to attending college. Some room and board costs are not costs of education, because they are necessary for existence no matter what the person is doing. But *how much* do room and board costs increase over what they are when mothers and housewives provide the services?

There are other problems encountered in implementing the general principles, some which I shall survey briefly.

If the relative importance of external benefits varies for different kinds of education, differential subsidy rates are implied. The extent of external benefits can never be known exactly, but is something the public must reach an informed agreement on. It may be thought that the relative importance of external benefits increases or decreases at the margin, with corresponding variations in the subsidy as fraction of marginal cost. It may be the social judgment that a little higher education for a lot of people is the important thing, and that there are diminishing marginal external benefits to education of each person. This may cause the subsidy rate to decline as the number of years already spent in college increases, or to be smaller for attendance at high-quality, high-cost institutions than at low-quality, low-cost ones. Some subsidy plans like this are already used in the United States. Education through the 12th grade is subsidized more than after the 12th grade. Attendance at a State college of certain quality is more heavily subsidized than very-high-quality education, if the only high-quality institutions are outside the State and the subsidy is not portable. In some jurisdictions, a person going through public high school, attending a public college a year or two, and then transferring to an out-of-State college faces this declining State government subsidy.

A very prominent issue is whether the public money should go to institutions of higher education or to students. Should aid take the form of operating low-tuition public institutions, giving operating grants to private ones, and giving grants and subsidized loans to colleges for buildings? Or should it take the form of scholarships, subsidized loans to students, generous wages for student labor, and the like?

Those who want subsidies to "lighten the load" of the family argue that grants to colleges and universities do not accomplish this objective,



and those who want to help "hard-pressed" institutions achieve higher quality are afraid that grants to families will prevent this. But in practice there may be little difference in the result. The net impact on the quantity and quality of higher education will depend in any event on the elasticity of demand by families for higher education. The market for students is competitive. Institutions want certain kinds of students, and they compete for them by offering various packages of education at various prices. A subsidy reduces the net private price of a given quality product. If a new subsidy is given to families, some institutions will upgrade their quality and raise their price, hoping that their desired clientele has elastic demand and that it will desire better quality now that the net private cost is lower. Other institutions will appeal to families with low elasticity of demand; they will hold the line on quality and their price, appealing to families who wish to use the subsidy primarily to finance other goods rather than education. The increase in higher education in the whole economy will depend on the elasticity of demand, and will vary from family to family and institution to institution. It is not essentially different if subsidies are given to institutions. Some of them will announce to families of prospective students that they intend to maintain prices and use the subsidy to upgrade quality, while others will announce they intend to maintain quality and reduce price, using the subsidy to replace tuition income. Again, some families will be attracted to the first kind of institution and others to the second, depending on the elasticity of their demand.

From the nature of colleges and universities, we need not worry that profit seeking will prevent the subsidy from being shifted to families if it is originally given to institutions. This shifting will show up either as a lower price and constant quality, or as a constant price and higher quality. In either case the subsidy redounds to the benefit of the family. We are on less solid ground in assuming the subsidy to institutions will not be partially dissipated in waste, but here, too, competition should put pressure on, even if other incentives for efficiency are lacking.

In a multilevel political system, the "public" must mean some particular government. Any particular one knows that others are in the subsidy business, too. The institutions or families it considers subsidizing will receive aid from other sources, public and private. The Federal Government, for example, faces a situation where the extent of State government subsidies varies widely within the Nation. Likewise, almost every institution's students receive private, philanthropic assistance, but some very much more than others. Should the particular government adjust its own subsidies inversely to take account of this? I don't think Government should reduce aid to an institution or its students just because it does well by private gifts. Of course, if Government doesn't, the total subsidy received will vary from family to family for reasons not relevant to the aim of increasing higher education. On balance, I think this is acceptable, and that the public sector should not try to prevent income redistribution when it is done in this way, even though a rather different attitude prompts the taxation of bequests and gifts.

Does this apply to Federal assistance in a system where State aid to higher education varies greatly? Should the Federal Government try

to offset this variation? In principle, the Federal subsidy should be the proportion of benefits external to the individual *and* to the smaller jurisdiction, letting the lower government correct for benefits external to the individual but internal to that jurisdiction. Migration gives rise to a Federal role, since a State government may not care to do much if many people will leave the State after being educated (but of course this is not a reason for the State to limit its subsidy to students who attend college inside the State). In addition the external benefits in rapid economic growth are a special Federal responsibility. Aside from the formidable problems in determining the appropriate share, there is an uncertain impact of equalization on State and local government incentives. Again, I feel that as far as subsidies to correct external benefits alone go, the Federal Government should not vary its subsidy percentage inversely to the State government one. The Federal subsidy can be based on a total cost of education, not on the tuition that institutions charge. The Federal Government can tolerate and welcome widely different rates of subsidy from all sources combined, giving scope to diverse preferences for local public support and for philanthropy.

#### REDUCING UNCERTAINTY

Unless there are subsidies, the presence of external benefits causes underinvestment in higher education even when the benefits are certain. There are added biases against investment because the benefits are uncertain and investment is risky for the individual. Earnings differentials for college graduates, compared to high school graduates, vary greatly from person to person, and are frequently negative. It is unlikely that variations in psychic income perfectly offset these variations in money earnings, so the total income advantages of a higher education are uncertain. If the risk which each prospective student faces prevents him from taking the gamble, the benefits of education are lost, even if the total return to a large group of investors would be very satisfactory. For the economy as a whole, unusually low returns are offset by unusually high ones, and the average is what is relevant. But the individual buys one education and lives one life. The costs are certain, the returns are not, and he cannot pool many independent random events. His chance of a high return may not balance the risk of a lower one. Even if he is willing to risk his own resources (chiefly time), he may find no lenders willing to loan him the necessary additional funds except at a high rate of interest. The lender faces the uncertainties the borrower does, plus the risk of the borrower's cupidity. And unlike for other loans, the capital being financed does not provide security. When a bank lends money to build a house, the house is its security, but it cannot retain a claim on the borrower's education.

If persons pass up investment because of this, society is deprived of capital which would be very productive. It may be worth it to the public to reduce risk to lenders by guaranteeing loans, for the default losses may be a small price to pay for the external benefits it receives from the education it induces. Various governments have such guarantee schemes to foster investment in higher education. Since loans do not normally cover full opportunity costs, the investor being left to borrow

the rest for himself, these schemes cannot completely eliminate risk.<sup>4</sup>

It is thus appropriate for the public to extend outright subsidies, and also to guarantee the loans students get to finance the *remaining* private costs of education. It is possible to combine both kinds of assistance by permitting loans which are both guaranteed and subsidized (student loans made by colleges out of NDEA loan funds are subsidized and 90 percent guaranteed by the Federal Government). Loans are subsidized if the interest rate charged the borrower is less than the usual market rates on safe investments. If the repayments are discounted at the market rate, their present value is less than the amount borrowed, and the difference between the two is the subsidy.<sup>5</sup> Even if loans are not subsidized in this sense, guaranteeing them is an effective way to reduce uncertainty. An additional subsidy can be justified by external benefits, but does not have to be given by reducing the interest rate still more—it can be given by scholarships, grants to colleges, etc.

A loan guarantee leaves the borrower with the risk of losing his own funds, and the risk of embarrassment if he cannot repay the loan on his own. The embarrassment risk can be eliminated if the repayments are not rigidly based on the principal, but vary with the borrower's later income, as in the "educational opportunity bank" idea.<sup>6</sup> Under a guaranteed loan plan the borrower who is successful in earning income later and the one who is unsuccessful must pay back the same amounts, and this commitment creates apprehension that future repayments will exceed the margin of income over minimum living expenses. Under a variable repayment plan, a successful borrower pays back more than he would under the guaranteed loan plan, while the unfortunate borrower pays less, perhaps nothing. Borrowers who are willing to exchange the risk of having to default later for a risk of having to pay back more will be attracted by the variable repayment plan. The opportunity bank can be set up so that it only reduces uncertainty and does not attempt to subsidize education beyond this; this would happen if it established repayment schedules and borrower screenings with the aim of earning in the long run only the rate of return on fairly safe private investments. Or the bank can increase the subsidy to higher education by settling for a lower rate than this.

As a device to reduce risk, the variable repayment plan may be superior to guaranteed loans. But it has one very distinctive feature. In practice, repayment must be based on monetary income, and repayments from people who take much of their income in "compensating differences" will be relatively low. Returns from nonworking, educated housewives will be low for example. An undue relative burden is put on persons who take the private benefits of education in monetary form,

<sup>4</sup> For a fuller discussion of justifications for Government loans or guarantees, see James McKie, "Credit Gaps and Federal Credit Programs," in *Commission on Money and Credit, Federal Credit Programs*, Prentice-Hall, Englewood Cliffs, N.J., 1963, pp. 317-354.

<sup>5</sup> For an application of the arithmetic to subsidies in another field, see John Pincus, "The Cost of Foreign Aid," *Review of Economics and Statistics*, November 1963, pp. 360-367.

<sup>6</sup> Panel on Educational Innovation, *Educational Opportunity Bank*, U.S. Government Printing Office, Washington, 1967. See also William Vickrey, "A Proposal for Student Loans," in U.S. Office of Education, Selma Mushkin ed., *The Economics of Higher Education*, Bulletin 1962, No. 5, U.S. Government Printing Office, Washington, 1962, pp. 268-280.

and this creates both equity and incentive problems. While some feel this is an advantage of the plan, and that encouraging people to enter certain low-paying occupations is socially desirable, it seems better to do this by using occupational subsidies financed out of general tax revenues and not selective taxes on other borrowers from the bank who earn high money incomes.

#### INCOME DISTRIBUTION EFFECTS

A uniform subsidy of all families buying higher education inevitably creates consumer surplus for many families. If the private price for a given quality education falls, the family can buy for a lower price all the education it would have bought anyway at unsubsidized prices. It receives a windfall gain, no matter what its response is at the margin to the subsidy. If higher education is measured in quality-adjusted units, and if the family buys four units at a price of \$3,000 each without subsidy, and if the subsidized price is \$2,000, the increase in consumer surplus is \$4,000. This is a windfall gain no matter how many extra units are bought at the lower price. Of course, some of this windfall income gain *may* be used to buy more higher education than before.

The real resource costs of a uniform subsidy depend only on the amount of extra education produced, which in turn depends on the elasticity of demand, and on the marginal costs of producing it. However, the total public *expenditure* may be large even if little more education results. In general, the effectiveness of the subsidy, measured by the additional educational attainment per dollar of expenditure, is the smaller the less elastic is demand. If elasticity is low, the subsidy is mostly a transfer from taxpayers to buyers of higher education without much net social benefit.

The problem is not that the economy as a whole suffers loss, if the elasticity of demand is low, but that the public sector goes to the trouble of transferring income without receiving much extra social benefit for its trouble. This is objectionable even if both the taxpayers losing real income and the families gaining it are at the same income level. Even the most worthwhile good should not be subsidized if the subsidy does not induce any more production of it. It is even more objectionable if higher income families gain more than they lose in the process, for then equity is lost without allocative efficiency being improved much.

No one knows precisely what the income distribution effects of our present subsidies at various levels of government are, nor what the elasticity of demand would be if new subsidies were introduced. In this country, the larger part of the subsidy is given by State and local governments. It is felt that the net impact of their whole budget is to reduce inequality. But these governments generally still rely on regressive taxes to finance the subsidies, while many families who buy a lot of education, and thus receive a lot of the windfall gains, are already rather well off. In terms of absolute numbers, low-tuition public colleges and universities, including the high-quality ones, are heavily populated by students from upper middle and upper income

families. And the attendance rate for lower income families is still considerably lower than for higher income ones. Considering the higher education part of the budget alone, in some jurisdictions the redistributive effect is probably quite unfortunate, and in most others could be improved. One will feel there is greater room for improvement if he wants higher education policy to do more than avoid windfall gains to well-to-do families, and use subsidies in a very positive way to change the income distribution toward more equality.

However, it is not really clear that the higher education part of the budget should be considered separately. Nor is it clear that the elasticity of demand is higher among lower income families. We know that the attendance rate is already very high among upper income families, so not much more is to be gained there. But additional subsidies to them might nevertheless improve the *quality* of education substantially. And although the attendance rate has more room to increase at the lower income levels, finances are not the only barrier to investment for poorer families. Subsidies may not be sufficient to overcome the attitudes and lack of experience of the poor, especially in areas where good elementary and secondary education is lacking.

In spite of these uncertainties, I feel a more discriminating scheme would, in fact, improve the effectiveness and distribution of present public subsidies. The subsidy percentage might vary inversely with family income and directly with the cost of education bought. Families would receive public subsidy only if they bought education which cost more than some minimum amount, a minimum which would rise with family income. The family's subsidy rate would rise in steps as the cost of education rose farther and farther above the minimum for its income class, increasing incentives at the margin. Hopefully, this would increase the effectiveness of public expenditure by avoiding payment of large amounts to families for education they would have bought anyway. But even if it did not discriminate the right way on the basis of elasticity of demand, it would give a preferable distribution by income class of any given amount of subsidy.

Many of the points made earlier need not be modified by consideration of income distribution. The subsidy can be based on total cost of education, including student opportunity earnings and full institutional costs. Loan guarantees (but not subsidized loans) are appropriate for loans taken out by all families, regardless of income, although they may well have their greatest effect in promoting new investment by poor families which otherwise are especially affected by risk. However, a government may feel more confident of achieving distribution goals if it extends subsidy directly to families. If grants are made to institutions, income distribution goals are achieved only if colleges and universities practice the right kind of price discrimination by income class.

#### FEATURES OF PRESENT PRACTICES

I shall briefly compare some features of present subsidy schemes with the ideal criteria developed above.

## LOW-TUITION PUBLIC INSTITUTIONS

A college or university may be public in either of two senses. It may offer education at a price far below full cost, the gap between tuition income and costs being financed by taxes. Or it may be merely an institution set up by the State and operated by its employees, without regard to the pricing system. Public operation and very low tuition would not necessarily have to accompany each other, but in practice they almost always do.

If there are any objections to public operation, they are not ones suggested so far. However, the other feature, low tuition, has the shortcomings of a uniform subsidy scheme which were mentioned above: it is less effective than a discriminating subsidy, and it may redistribute income in the wrong direction if combined with a certain tax system. Public institutions give some scholarships, which amounts to price discrimination in the right direction. But on the whole they have not gone as far as private ones in this regard. Varying basic tuition charges according to the student's family income is rare.

This point is significant because sustained support of State and municipal colleges and universities is still the most important form of public aid to higher education in the United States.<sup>7</sup> In recent years more and more branches of State university systems have been established, so that more of the population is close to a public college than ever before. This undoubtedly improves the income distribution effect. However, many upper income families still attend public colleges and receive as much or more subsidy as lower income families, which are more likely not to attend college at all or to attend lower quality branches. The effect may be reversed if the State maintains no institution of high enough quality to attract higher income families.

In most States the bulk of public subsidy is available only to students who attend public institutions. This limits consumer choice and competition. In the past, this policy was justified by the need to achieve economies of scale and by the failure of private colleges to offer the kind of technical education the majority of the public thought useful.<sup>8</sup> Perhaps the practice is still justified by the favorable effect on economic growth in a State. However, this goal might be achieved by the State financing certain activities, such as research, at universities without offering the same subsidy to all students.

## GRANTS TO COLLEGES AND UNIVERSITIES

Grants to both public and private colleges and universities are now the biggest Federal efforts in higher education. Some grants support specific areas of study, like science, and others are for academic buildings. College housing loans are subsidized and thus have the same effect (a dollar of loan does not have the same effect as a dollar of grant, of course). In all cases the effectiveness and income distribution consequences depend on the prices set by the recipients. If the ultimate result of the grant is to lower the price for all students, the effects

<sup>7</sup> It is the even more dominant form for State and local governments, being far larger than the implicit subsidy given by exemption from property taxation and grants to private institutions and to students.

<sup>8</sup> On dissatisfaction with the private colleges, see Frederick Rudolph, "The American College and University," Alfred A. Knopf, New York, 1962, pp. 241-263.

are similar to the ones of any uniform subsidy. If the ultimate result is an increase in scholarships to the needy, the effects are different. The Federal Government does not make conditions on the grants in an effort to achieve any particular result, except that some academic facilities grants are limited to 2-year public colleges, which are undoubtedly patronized more heavily by lower income families. Federal subsidies are financed by a more progressive tax system, however.

Grants for buildings are subsidies tied to the use of specific inputs, buildings. One may object that a more general subsidy is better than one on specific inputs, because it does not distort decisions on what inputs to use in producing education. If the purpose of grants is to offset the lack of an organized capital market for funds to finance academic buildings at private institutions, guaranteed loans might do as well. The subsidized housing loans are for buildings where there is already more of a tradition of private borrowing. Furthermore, housing may be a less appropriate item to subsidize, because not all its cost is a true marginal cost of education.

#### DIRECT ASSISTANCE TO STUDENTS

Direct aid to students does better by the earlier criteria than the other programs. It is often limited to lower income students, and sometimes an effort is made to limit it to students who would not be able to attend a given college without it. Examples of Federal programs are NDEA loans to students by colleges out of Federal grant funds, educational opportunity grants to needy students, subsidies on guaranteed commercial loans, and payment of part of the wages of working students. These are very desirable parts of Federal policy and point the way for future subsidies to higher education.<sup>9</sup>

#### CONCLUDING REMARKS

Higher education policy offers a challenge for the effective use of public funds. It is also an area where many can disagree on the appropriate public goals and on the facts of the situation. I have outlined reasons why I feel the effectiveness of the present level of aggregate support could be improved. Many who suggest new subsidies in higher education are clearly interested in using them to lighten the "burden" on families, especially middle class families. Most of the recently proposed Federal income tax changes reflect this goal. There is danger of losing sight of one important reason why subsidies are justified in the first place: they are useful to the extent they induce the population to buy more of a socially valuable good than they would without subsidies. There is need for a carefully designed structure, not massive general support for all students in all colleges. Equity requires this also, for true equity is achieved by concentrating aid on those who need it, not by treating every family alike.

<sup>9</sup> A word of caution on work-study. The present Federal program makes an effort to avoid them, but financing student employment may have quite wrong effects. If the student must do mental work which has no educational value, he sacrifices time which he could use in more diligent study or in leisure. Either way, he comes out even. Since the public pays his wages, he works for his institution and fellow students without their having to pay the bill. The other students are subsidized, not the working student.

# EMPIRICAL EVIDENCE CONCERNING THE RELATIVE EDUCATIONAL PERFORMANCE OF CHILDREN FROM DISADVANTAGED BACKGROUNDS

BY HERBERT J. KIESLING\*

## INTRODUCTION

While there exists a great deal of good evidence of a subjective nature concerning the situation of children from disadvantaged backgrounds in our schools,<sup>1</sup> there is little evidence which is objective in nature and which encompasses a relatively large number of schools. This paper contains findings concerning the progress of children from poor socioeconomic backgrounds which were derived from two important samples of school populations, a sample of school districts in New York State and a nationwide sample of high schools. After a brief description of the two samples, three fundamental problem areas will be discussed. These areas have to do with the search for answers to the following questions:

1. How well do American public schools educate children from disadvantaged backgrounds?
2. How is the performance of children from disadvantaged backgrounds related to the socioeconomic backgrounds of their classmates?
3. What things are American public schools doing which seem to be positively related to the performance of disadvantaged children?

It should perhaps be stated that this paper is a discussion of the educational performance of all disadvantaged children, regardless of their race.<sup>2</sup>

## THE SAMPLES

The two samples used are to some extent complementary. The first is 97 school *districts* in one State where pupil performance is included for grades 4 through 12 with the information for grades 4 through 8 being relatively better than that for the high school grades.<sup>3</sup> The other

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\*Assistant Professor of Economics, Indiana University. Part of the research reported upon in this paper was financed by a grant from the U.S. Office of Education. The author wants to acknowledge the specific cooperation of the Research Computing Center at Indiana University without whose full cooperation the manipulation of the substantial amounts of data analyzed in this study would not have been possible.

<sup>1</sup> This is especially true for the ghetto school. Edgar Z. Friedenberg has written a penetrating review of two recent books on the subject which should serve as a good starting place for the interested reader ("Requiem for the Urban School," *Saturday Review*, Nov. 19, 1967, p. 77).

<sup>2</sup> Some tentative findings concerning the relative performance of Negro children are given in footnote 16 below.

<sup>3</sup> For two reasons. For grades 10, 11, and 12 there were a great many missing observations (27 out of 92) because of nonresponse to the socioeconomic status question and an error in the author's program for summarizing the data. For grade 9 the trouble was that the ceiling built into the test (the Iowa test of basic skills) was not high enough such that better schools and pupils were discriminated against. No grade 9 data were used in the author's study of the New York districts.



sample consists of 775 high schools selected from the entire continental United States.

Both samples came from about the same time period; in New York the data were collected in the school years beginning in September of 1957, 1958, and 1959, while most of the Project Talent initial data (followup data are still being collected) were obtained in 1960.

Both samples are reasonably—although undoubtedly not completely—representative of their constituent populations. The New York sample was handpicked and is therefore nonrandom in the technical sense of the word, although a great deal of *ex post* checking by the author failed to yield any obvious biases. The Project Talent sample was, on the other hand, scientifically picked, although the stratifications used were based upon size and percentage of pupils present in the 10th grade who graduate and as such the sample is not exactly representative geographically.<sup>4</sup> Of the two samples, Project Talent collected by far the greater amount of data. The Talent questionnaires for pupils, counselors, and principals ran to several hundred questions. On the other hand, collection quality for several items of crucial information such as teacher salary levels and the like was better in the New York study.

Most importantly, both studies collected three key sets of data for all their pupil subjects—achievement test scores in basic subjects, intelligence test scores, and good quality information concerning the pupils' home environment. If we admit to the simple proposition that a person's education is dependent upon his native ability and home background (through which comes his educational motivation), besides his exposure to formal education, the importance of these data becomes obvious. The empirical scheme used for most of the findings given below is to make pupil performance for pupils *from similar socioeconomic backgrounds* dependent upon school characteristics with the effect of intelligence held constant by using the intelligence score as one continuous variable in a multiple regression analysis. In this paper we will concentrate our attention upon only one of the socio-economic strata, of course, the lowest one, although findings from others will be introduced for purposes of comparison.<sup>5</sup>

This description of the samples has been necessarily brief. There is extensive published material concerning both samples to which the interested reader is referred in a footnote.<sup>6</sup>

<sup>4</sup> The South seems to be overrepresented relative to the Northeast and Far West.

<sup>5</sup> A word should be said here concerning the use of a variable for intelligence. The valid criticism can be advanced that at the present state of the arts IQ tests and achievement tests measure much the same thing and using the IQ score as an explanatory variable serves to remove variation which should legitimately be ascribed to what the school does. There is undoubtedly some truth in this contention although I think less than some critics will admit. In any case, this controversy is not very germane to this paper since the findings here are by-and-large just as clear cut with the intelligence variable outside the equation as in.

The Project Talent intelligence score used here is probably about the best that can be done in representing human native ability. A number of different tests which were designed to measure intelligence were given each pupil and then the scores were factor analyzed with the first principle component of the tests assumed to be the intelligence ("G") factor. This intelligence factor score has been used throughout for intelligence in my analysis of the Project Talent data. The test used to measure achievement in the New York study was the *Lorge-Thordike* IQ examination.

<sup>6</sup> *The New York Study*: See Firman, William A., and others, *Procedures of School Quality Evaluation*, Albany, N.Y.: The University of the State of New York, the State Education Department, 1961.

Also see, Kiesling, Herbert J., "Measuring a Local Government Service: A Study of School Districts in New York State," *Review of Economics and Statistics*, August 1967, pp. 356-367.

*The Project Talent Study*: See Flanagan, John C., and others, *Project Talent, Studies of the American High School*, University of Pittsburgh, Pa., 1962.

EVIDENCE CONCERNING EDUCATIONAL PERFORMANCE OF  
DISADVANTAGED CHILDREN

The first question posed above had to do with how well the schools are educating children from poor backgrounds. The answer would seem to be: "Not terribly well." This can be ascertained in two ways. First, mean levels of performance of children from disadvantaged backgrounds are consistently much lower than those from other socioeconomic strata.<sup>7</sup> But this is only the first step in establishing a case that such children are not being helped in the schools. It is not in itself conclusive because the inferior educational performance of pupils from disadvantaged backgrounds is only to be expected since home environment has a strong effect upon education, as we know. To establish the proposition, it must also be shown that better schools, somehow defined, also do not educate such children better than poor schools. The evidence seems to indicate, although not conclusively, that this is indeed the situation.

But what definition should be used for a "good" school since, as the author has taken pains to point out elsewhere,<sup>8</sup> measuring school quality is no easy matter. The working concept of a good school which will be used here is a school that spends relatively large amounts per pupil. This assumes that additional dollars are efficiently spent, of course, and this could be assuming too much. But, since much of the author's work has shown that higher spending schools also have pupils who, *on the average*, perform better, and also because educational moneys are spent in relatively standardized ways such that the relative efficiency or inefficiency is about constant, it should not be unreasonable to use expenditure per pupil as an index of what is traditionally thought to be "goodness" in education.

Having made this proviso, the question to be answered becomes: Are pupils from disadvantaged backgrounds better educated in high expenditure (per pupil) schools than they are in low expenditure schools?

Table 1 presents the key findings related to this question for the New York sample. For ease of interpretation regression coefficients have been standardized. Beta coefficients representing the relationship between expenditure per pupil<sup>9</sup> and average achievement performance is given for three pupil populations at three grade levels. Statistical significance is given by the standard *t*-statistic. A rule of thumb for the *t*-statistic in general is that a coefficient whose value of *t* exceeds 1.6 is significant at the 90-percent level while a value in excess of 2.0 is significant at the 95-percent level of confidence. Finally, large school district data are given separately because it was found that there is a very fundamental behavioral difference in these New York districts between large districts and small, with the latter exhibiting much more random behavior.

<sup>7</sup> For the New York pupils means are given in table 1 while those for the Project Talent High Schools can be seen in table 2.

<sup>8</sup> *Review of Economics and Statistics*, August 1967, *op. cit.*

<sup>9</sup> The expenditure concept used is "net current expenditure," which excludes expenditures for debt service, capital repayment, and miscellaneous expenditures not connected with the day-school program.

TABLE 1.—Performance of children from low socioeconomic backgrounds related to school district expenditure per pupil, New York school districts, compared with all pupils and pupils with upper-middle class socioeconomic backgrounds, 3 grade levels

## ALL SCHOOL DISTRICTS

Pupil population: Occupation of family breadwinner	Grades 4, 5, 6				Grades 7, 8				Grades 10, 11			
	Beta	<i>t</i>	<i>N</i>	Mean	Beta	<i>t</i>	<i>N</i>	Mean	Beta	<i>t</i>	<i>N</i>	Mean
Unskilled workers, servants.....	0.130	1.26	81	5.5	0.118	1.50	75	7.0	-0.008	0.13	63	15.2
All pupils.....	.197	*2.17	89	12.1	.049	.46	79	16.0	.026	.03	63	18.4
Proprietors, managers, officials.....	.218	*2.38	88	14.7	.155	1.59	79	13.5	-.083	1.10	60	19.6

## LARGE SCHOOL DISTRICTS

Pupil population: Occupation of family breadwinner	Grades 4, 5, 6			Grades 7, 8			Grades 10, 11		
	Beta	<i>t</i>	<i>N</i>	Beta	<i>t</i>	<i>N</i>	Beta	<i>t</i>	<i>N</i>
Unskilled workers, servants.....	0.030	0.19	43	-0.046	0.34	36	0.117	1.10	31
All pupils.....	.331	*2.47	45	.238	1.84	43	.107	1.30	33
Proprietors, managers, officials.....	.331	*2.67	45	.530	**4.06	42	.095	.90	33

## NOTES

Beta coefficient: A beta coefficient is defined as the relative number of standard deviations of the dependent variable associated with a change of 1 standard deviation of the independent variable.

Statistical significance:

\*Significant at 95 percent.

\*\*Significant at 99 percent.

*N* in this table refers to the number of school districts for which data were available. The difference in numbers occurs because of missing observations.

Output measure: For grades 4, 5, 6, and 7, 8 the dependent variable used was average achievement score of pupils in the 2 sets of grades in terms of number of academic months deviation from the academic norm. For grades 10 and 11, pupil scores for both grades were used with a dummy variable introduced to remove the grade effect.

Degrees of freedom, grades 10 and 11: Since 2 grade observations were used per district, and since the scores pertain to many of the same pupils, the number of degrees of freedom are overstated as being twice their true number. The *t* values shown are adjusted for this. *N* for grades 10 and 11 refers to the number of school districts and not to number of grade observations.

Other variables in the multiple regression equation: The beta coefficients given are net of the effects of average pupil IQ score, school district size in average daily attendance, and school district rate of growth from 1950 to 1958.

Mean scores: Mean achievement score performance for the pupils in the given category are given for all school districts. For grades 4, 5, 6, and 7, 8, the scores represent number of academic months (10 per academic year) above the national norm. For grades 10 and 11 the scores are given in terms of grade units which are approximately equal to ½ of an academic year. National norm is approximately 14. Standard deviations for all pupils in all school districts are:

Grades 4, 5, 6.....	5.5	academic months.
Grades 7, 8.....	5.4	academic months.
Grades 10, 11.....	2.5	academic months.

The contrast in the expenditure-performance relationship between the unskilled worker grouping and the other two is almost dramatic, especially in the lower two grade levels, where none of the unskilled worker relationships are statistically significant with the one that comes closest, that for grades 7 and 8 in all school districts, being negative. In the high school grades, the relationships are insignificant in all of the pupil populations.

Findings from the Project Talent sample with respect to the relationship of expenditure to pupil performance are somewhat contradictory. When all the public high schools are considered together as units, disadvantaged pupils seem to do as well in better schools as any

other pupils. When the high schools are further disaggregated by region and urbanness, however, the result obtained is similar to that found for the New York State schools. The findings relating high school expenditure<sup>10</sup> to pupil performance in English and mathematics in all the Project Talent public high schools are presented in table 2. The relationship is given for all pupils and pupils in each of the four socioeconomic quartiles for grades 9 and 12.

TABLE 2.—*Relationship of achievement performance, English and mathematics, to high school expenditure per pupil, Project Talent high schools, grades 9 and 12*

Pupil population	Grade 9				Grade 12			
	Beta	t	Mean	N	Beta	t	Mean	N
English score								
Lowest SE quartile.....	0.163	**3.77	71.8	537	-0.029	0.69	80.3	555
3d SE quartile.....	.129	**2.89	74.9	464	.038	.88	84.1	493
2d SE quartile.....	.087	1.74	77.0	376	.078	1.67	87.2	422
Top SE quartile.....	.0069	.02	81.7	248	.0098	.18	89.6	322
All pupils.....	.077	*2.51	73.9	647	.050	1.89	82.7	690
Mathematics score								
Lowest SE quartile.....	0.200	**4.85	14.2	537	0.057	1.39	17.1	555
3d SE quartile.....	.207	**4.92	16.0	464	.068	1.62	19.3	493
2d SE quartile.....	.106	*2.19	17.3	376	.090	1.95	21.5	422
Top SE quartile.....	.047	.91	19.8	248	.154	**2.95	23.7	322
All pupils.....	.211	**6.62	15.7	647	.109	**3.64	19.1	690

#### NOTES

Beta coefficients: See notes to table 1.

Statistical significance:

\*Significant at 95 percent.

\*\*Significant at 99 percent.

N: N in this table refers to the number of high schools for which data were available. The difference in numbers occurs because of missing observations.

Other variables: The beta coefficients given are net of average pupil intelligence factor score and high school size.

Mean scores: The means shown are merely equivalent to the number of questions on the applicable Project Talent objective test and therefore have no relationship to academic years of achievement as do the scores in table 1. Standard deviations for all pupils are:

	Grade 9	Grade 12
English.....	11.4	13.8
Mathematics.....	4.4	5.8

Socioeconomic index: The Project Talent socioeconomic index includes the following components: Value of home, family income, number of books in the home, number of appliances in the home, number of high-cost appliances in the home, amount of study space enjoyed by the pupil, father's occupation, father's education, and mother's education.

In the column of results for grade 9 the evidence rather dramatically contradicts the conclusions just seen for the New York schools. School expenditures become much more significantly related to pupil performance as the socioeconomic background of the pupils becomes lower. In the 12th grade, however, this is reversed with pupils in the fourth socioeconomic quartile having performance levels which are unrelated to school expenditure. The ninth-grade finding makes necessary some caution about concluding that children from poor back-

<sup>10</sup> While the Project Talent survey collected expenditure figures both for high school and school district, we have used the latter in this paper because of a great number of missing observations with respect to the former figure—a figure which is indeed quite difficult to obtain. When principals entered both figures, they were almost always in complete agreement with the coefficient of correlation between the two being in excess of 0.95.

grounds are not benefited by their presence in high-expenditure school districts.

With respect to the problem as to why the ninth-grade findings in table 2 are so different from those for the 12th grade, a plausible explanation might involve the influence of high school dropouts. Thus, the lowest spending schools have very-low-quality pupils in grade 9 who have, by the time they have arrived at the age where they would be in grade 12, dropped out. Further analysis of the data seemed to confirm this hypothesis.<sup>11</sup>

An interesting finding displayed in table 2 and in the previous note is that pupil performance in general, and especially that of pupils in low socioeconomic backgrounds, seems to be more related to school expenditure in mathematics than it is in English. This finding might be explained by the fact that mathematical skills are much more school related than are language skills with the latter often learned by pupils in their home environment.

When the Project Talent high schools are disaggregated by region and urban characteristics into more homogeneous categories, the results seem more similar to those described for the New York schools. The findings are given by region in table 3 and by urban category in table 4. They can be summarized into the following:

1. Generally, pupil performance in the lowest quartile is less related to school expenditure than that in the other quartiles and for all pupils taken together. The single exception to this is the performance on the English test in the fourth quartile in the urban schools (table 4).

2. Geographical characteristics according to urbanness seem to be more important than region. Within the geographical categories, pupil performance is much more closely related to school expenditure than in regions.

3. The almost total lack of relationship between score and expenditure in the regional breakdowns can perhaps be explained by the

<sup>11</sup> Two approaches were used to test this contention and both seem to support the hypothesis. First, if it is true that pupils in the low socioeconomic category in the ninth grade actually come from worse backgrounds than those from the same category in the 12th grade, the mean score for socioeconomic index for the ninth-grade, low-background children should be lower. This average for the ninth grade is in fact about one-third of a standard deviation lower than for the 12th grade.

A second way to check for the existence of a different socioeconomic effect within each low category would be to regress the English and mathematics score of individual pupils in the lowest socioeconomic quartile against the expenditure of their school and then to introduce the socioeconomic index value for each pupil as an explanatory variable. When this was done, it was found that the expenditure-performance relationship was not much more significant in the ninth grade than in the 12th grade after the socioeconomic index was introduced into the regression equation. Applicable values of the *t*-statistic for the coefficient of partial regression of expenditure upon English and mathematics score for the two grades net of the effect of the socioeconomic index are as follows:

Grade 9 :	
English.....	1.54
Mathematics.....	3.11

Grade 12 :	
English.....	-.67
Mathematics.....	2.20

Some difference still remains in the English score, however.

Also of interest are the *t*-values which obtain before the intelligence variable is introduced. These are as follows:

Grade 9 :	
English.....	3.56
Mathematics.....	5.30

Grade 12 :	
English.....	2.37
Mathematics.....	6.20

Now the two grades are much more similar with the 12th grade relationship becoming stronger than in the ninth grade for mathematics.

existence of different combinations of districts according to geographical composition. If the urbanness classifications are meaningful, and if there are different combinations of high schools according to such classifications in each region, then conclusions concerning region are not possible.<sup>12</sup>

TABLE 3.—*Performance in Project Talent high schools relative to expenditure per pupil by region, Great Lakes, Plains, and Southeast, 4 socioeconomic quartiles*

Pupil population by socioeconomic index	Northeast			Midwest and West			Southeast		
	Beta	<i>t</i>	<i>N</i>	Beta	<i>t</i>	<i>N</i>	Beta	<i>t</i>	<i>N</i>
A. English score									
Top Quartile.....	-0.014	0.23	230	-0.052	1.13	402	0.054	0.63	165
2d Quartile.....	.097	1.76	304	.050	1.31	589	.001	.02	195
3d Quartile.....	-.064	1.43	435	-.025	.86	982	-.001	.04	459
Lowest Quartile.....	.092	.88	90	-.148	**2.76	306	.004	.07	303
B. Mathematics score									
Top Quartile.....	0.171	**2.72	230	0.055	1.18	402	0.100	1.15	165
2d Quartile.....	.121	*2.22	304	.001	.04	589	-.019	.28	195
3d Quartile.....	.005	.11	435	-.009	.31	982	.009	.22	459
Lowest Quartile.....	-.094	.88	90	-.008	.15	306	-.011	.21	303

## NOTES

Beta coefficient: See notes for table 1.

Statistical significance:

\*Significant at 95 percent.

\*\*Significant at 99 percent.

*N*: *N* in this table refers to the number of individual pupils in the applicable categories; the individual unit of observation is the individual pupil and not the high school.

Other variables: Other variables in the multiple regression equation from which these coefficients were taken were pupil IQ factor score and high school size.

TABLE 4.—*Individual pupil performance relative to expenditure per pupil in Project Talent high schools by urban classification, 4 socioeconomic quartiles, grade 12*

Pupil population by socioeconomic index	Urban			Large cities			Rural			Small town		
	Beta	<i>t</i>	<i>N</i>	Beta	<i>t</i>	<i>N</i>	Beta	<i>t</i>	<i>N</i>	Beta	<i>t</i>	<i>N</i>
A. English score												
Top quartile.....	0.030	0.80	620	0.005	0.09	291	N/A	----	----	-0.039	0.40	107
2d quartile.....	.025	.74	778	.009	.17	341	0.025	0.30	124	.127	1.94	186
3d quartile.....	-.033	1.16	1,128	-.117	**2.64	477	N/A	----	----	.005	.11	365
Lowest quartile.....	.085	1.50	318	-.089	1.12	138	-.054	.80	199	-.201	**2.77	182
B. Mathematics score												
Top quartile.....	0.170	**4.52	620	0.044	0.83	291	N/A	----	----	0.163	1.65	107
2d quartile.....	.072	*2.16	778	.082	1.53	341	0.035	0.40	124	.084	1.27	186
3d quartile.....	.008	.30	1,128	-.052	1.19	477	N/A	----	----	.106	*2.15	365
4th quartile.....	.039	.70	318	-.182	*2.30	138	.109	1.62	199	.041	.57	182

## NOTES

Beta coefficient: See notes for table 1.

Statistical significance:

\*Significant at 95 percent.

\*\*Significant at 99 percent.

*N*: In this table *N* refers to the number of individual pupils in each socioeconomic quartile; the observation is the individual pupil and not the high school.

N/A: There were too few pupils in this category to provide meaningful estimates.

Other variables: Other variables in the multiple regression equation from which these coefficients were taken were pupil IQ factor score and high school size.

<sup>12</sup> The proper way to account for this is, of course, to cross-classify by region and urban category. At time of writing this analysis was incomplete, although preliminary results for the low socioeconomic pupils classified by four urban categories within the Southeast and the rest of the country shows no significant expenditure-performance relationships with the single exception of the English score for pupils in the urban Southeast.

4. Four of the eight relationships for the lowest socioeconomic quartile in table 4 are negative; two of these negative coefficients are statistically significant. For the 14 coefficients given in table 4 for the top two socioeconomic quartiles, only one is negative and that is highly insignificant statistically. Four of the thirteen positive coefficients are statistically significant at the 90-percent or higher levels of probability.

5. However, it is striking to notice how little pupil performance in general is related to the goodness of the high school.

6. Again, mathematics score is more related to school expenditure than is English score.

To summarize the findings in this section, it would appear (although the evidence is not conclusive) that performance of children from disadvantaged backgrounds is not much, if any, better in higher expenditure (per pupil) schools. This would tend to suggest, tentatively, that American schools are failing in the education of such children. Indeed, there are enough negative relationships between school expenditure and low socioeconomic pupil performance to cause one to wonder whether low socioeconomic pupils do not sometimes do worse in better schools. On the other hand, there is some evidence from the ninth grade findings to suggest that low-background pupils respond to better schools. Finally, when individual pupils' scores are regressed against the expenditure of their high schools the relationship seems to be uncomfortably weak.

#### RELATIONSHIP OF SOCIOECONOMIC CHARACTERISTICS TO THE PERFORMANCE OF CHILDREN FROM DISADVANTAGED BACKGROUNDS

The Equal Opportunity Survey (Coleman report),<sup>13</sup> in its study of the relative educational performance of Negro and white children in the schools, suggests that the most important force working upon pupils is the socioeconomic characteristics of their classmates. In this section, evidence is presented concerning the effect of school socioeconomic status upon the progress and performance of low socioeconomic children. The socioeconomic variables used include a figure for average occupational background level for the New York schools and the Project Talent socioeconomic index.<sup>14</sup>

Coefficients of simple correlation between two socioeconomic variables and selected educational inputs in the New York school districts are presented in table 5. All are statistically significant except one and most are quite high.

<sup>13</sup> Coleman, James R., and others, *The Equal Opportunities Survey of 1965*, Washington, D.C., U.S. Government Printing Office, 1966.

<sup>14</sup> The purpose of this section is to examine *differences* in the impact of the socioeconomic variables upon pupils from different home environments. Therefore, school expenditure is not included in the regressions used in tables 6 and 7 below. The introduction of expenditure reduces the sizes of the socioeconomic relationship (to about  $\frac{1}{2}$  and  $\frac{3}{4}$  in the respective tables) but does not change the *relative* relationships.

TABLE 5.—*Relationship of selected school variables and 2 measures of community socioeconomic level as expressed by coefficients of simple correlation, 89 school districts in New York State, 1959*

School characteristic	Socioeconomic index of occupation of family breadwinner	Assessed valuation per pupil of property within the school district
1. Net current expenditures per pupil.....	0.57	0.81
2. Total expenditure per pupil.....	.57	.73
3. Teacher-pupil ratio.....	.43	.42
4. Value of school property per pupil.....	.50	.37
5. Average teacher salary.....	.48	.79
6. Average salary of principals.....	.52	.62
7. School tax rate, full value.....	.44	.28
8. Expenditure per pupil on books and supplies.....	*.08	.49
9. Average achievement score, grades 4, 5, 6, Iowa test of basic skills, all pupils.....	.49	.28
10. Average IQ score, grades 4, 5, 6, Thorndike battery, all pupils.....	.55	.27

## NOTES

Statistical significance: All correlation coefficients show correlation significantly different from zero at the 99 percent level of confidence except that marked with an asterisk.

Assessed valuation measure: This variable includes industrial and commercial wealth found within the school district and as such is probably not as good a measure of the socioeconomic stature of the community as it would be if only residential wealth were included. The latter measure was impossible to obtain.

Expenditure concepts: The difference between total expenditure and net current expenditure is essentially the cost of debt service and repayment.

In table 6 is presented the number of academic months of achievement associated with an average increase in one category in the socioeconomic occupations scale for grades 4, 5, and 6 in the New York school districts.<sup>15</sup> The average socioeconomic level of the school is *not* significant for only two of the pupil groupings, those in the highest and lowest socioeconomic categories. This finding stands somewhat in contradiction of the Coleman report finding.

TABLE 6.—*Number of months of additional achievement performance associated with an increase in 1 category (range in categories is 1 to 6) in the index of socioeconomic background, school districts in New York State*

Explained or dependent variable	(1)		(2)		Number of school districts
	Allowance is made for IQ differences		Allowance is not made for IQ differences		
	Number of months	<i>t</i>	Number of months	<i>t</i>	
Average achievement score performance—grades 4, 5, 6:					
All pupils.....	2.11	**2.75	3.65	**5.16	89
Pupils in socioeconomic group 1.....	.69	.78	.95	1.02	87
Pupils in socioeconomic group 2.....	1.77	*2.23	2.23	*2.55	88
Pupils in socioeconomic group 3.....	2.12	*2.57	4.08	**4.84	87
Pupils in socioeconomic group 4.....	1.84	*2.43	2.26	**2.75	87
Pupils in socioeconomic groups 5 and 6.....	2.31	.90	3.52	1.00	81

Statistical significance:

\*Significant at 95 percent.

\*\*Significant at 99 percent.

Other variables: Other variables in the multiple regression equation from which these figures were taken were school district size in average daily attendance and past rates of school district growth.

The Project Talent sample, however, convincingly yields the opposite finding to that just given for the New York State schools. Table 7 lists beta coefficients for the relationship between average socioeconomic score and achievement performance for all pupils and for

<sup>15</sup> The relationship was not strong in the high school grades except for the large New York school districts in a manner similar to the findings for expenditure shown in table 1. To save time and space, the high school findings are omitted from table 6.



pupils in the four socioeconomic quartiles. The difference in the socioeconomic index-to-achievement relationship between the top and bottom two quartiles is almost dramatic. Values of the t-statistic for the latter are all in excess of 3.5; three out of the eight are greater than 5. No value for the two high quartiles is significant even at the 90-percent level. This evidence suggests strongly that children from low socioeconomic backgrounds are influenced more by the socioeconomic characteristics of their classmates than are pupils from high socioeconomic backgrounds.

TABLE 7.—*Relationship of achievement performance in the Project Talent high schools to an index of average socioeconomic status of students in each high school, beta weights*

Explained variable	(1)		(2)		Number of high schools
	Allowance is made for IQ, size, and growth differences		Allowance is not made for IQ, size, and growth differences		
	Beta	t	Beta	t	
Average achievement score performance, English:					
All pupils.....	0.414	**9.30	0.725	**25.93	610
Highest SE quartile.....	-.008	.14	.004	.67	238
2d SE quartile.....	.064	1.27	.083	1.56	355
3d SE quartile.....	.165	**3.61	.228	**4.90	441
Lowest SE quartile.....	.173	**3.84	.236	**5.47	511
Average achievement score performance, mathematics:					
All pupils.....	.136	**2.55	.549	**16.21	610
Highest SE quartile.....	.002	.05	.042	.64	238
2d SE quartile.....	.052	1.04	.078	1.47	355
3d SE quartile.....	.170	**3.89	.242	**5.22	441
Lowest SE quartile.....	.182	**4.23	.278	**6.52	511

## NOTES

Beta coefficient: See notes for table 1.

Statistical significance:

\*Significant at 95 percent.

\*\*Significant at 99 percent.

Index of socioeconomic status: For the components of this index see the notes for table 2.

In summary, the Project Talent data suggest that low socioeconomic children are strongly influenced by the socioeconomic status of their classmates while the evidence from New York State is somewhat contrary to this. The author knows of no way to explain this contradiction. Otherwise the findings in the two samples with respect to the socioeconomic variable are quite similar.<sup>16</sup>

<sup>16</sup> While this paper is not designed to deal directly with the subject of racial differences in the education of disadvantaged children, as was for example the case with the Coleman report, still the subject is of such importance that a note concerning some findings with respect to Negro students will not be out of place here. First, there are no findings from the New York State study concerning race. This was because only a few of the New York State districts had an appreciable percentage of Negroes and because data concerning race were not collected.

The Project Talent study made what was probably a significant error in not collecting data on individual pupils by race. The racial composition of each high school was available however. The influence of the percentage of Negroes upon the performance of children in the various pupil populations was checked with the aid of a simple regression equation in which score was regressed upon school expenditure, school size, pupil IQ factor score, a variable for type of housing in the neighborhood of the school, and percentage Negro. When this was done, it was found that the relationship of average achievement performance in most pupil socioeconomic categories was negatively related to percentage Negro in most populations. This is more true in the South than in the North and also more true in rural and small town districts than in urban and city districts (except for low socioeconomic status urban and city districts).

In comparing these findings for pupils in the lowest socioeconomic quartile with all pupils, it was found that the negative percent Negro relationship is stronger for low socioeconomic pupils for the English score but somewhat stronger for all pupils with the mathematics score.

All this suggests that Negro pupils are receiving relatively less education than other pupils and that the difference is probably more pronounced with respect to language skills.

## SCHOOL CHARACTERISTICS AND DISADVANTAGED CHILDREN

Finally, a topic is left for discussion which is possibly of more direct relevance to policy than any in this paper: What school characteristics seem to be most related to increases in the performance of disadvantaged children?

In the New York school districts data were available concerning several important school characteristics. These included average salary levels of school personnel such as teachers, principals, and the superintendent, teacher-pupil ratio, special-staff-to-pupil ratio, and value of school district property per pupil. Of these variables, three were most often related to pupil performance. These are average teacher salary, average principal salary, and teacher-pupil ratio.<sup>17</sup> Since school inputs in the New York school districts were highly related to pupil performance only in the large districts, only the findings for these three variables in the large school districts are presented (table 8).

TABLE 8.—Comparative significance of teacher salary, principal salary, and teacher-pupil ratio as variables explaining school district performance, 45 New York school districts larger than 2,000 pupils in average daily attendance, beta coefficients, grades 4, 5, and 6 averaged, and grade 10

Pupil population (occupation of family breadwinner)	Grades 4, 5, and 6			Grade 10		
	Teacher salary	Principal salary	Teacher-pupil ratio	Teacher salary	Principal salary	Teacher-pupil ratio
All pupils.....	0.402	0.327	0.459	0.144	0.202	0.341
1. Professional persons.....	** (3.32)	*(2.53)	** (4.14)	(1.47)	*(2.07)	(3.97)
2. Proprietors, managers, and officials.....	0.365	0.246	0.349	0.122	0.173	0.377
	*(2.66)	(1.75)	*(2.56)	(0.78)	(1.14)	** (2.77)
3. Clerks and kindred workers....	0.413	0.290	0.462	0.098	0.175	0.397
	*(3.12)	*(2.08)	** (3.71)	(0.80)	(1.44)	** (3.77)
4. Skilled workers.....	0.338	0.254	0.382	0.268	0.223	0.352
	** (3.20)	*(2.30)	** (3.85)	*(2.12)	(1.31)	** (2.91)
5. Semiskilled workers.....	0.414	0.297	0.472	0.294	0.248	0.356
	** (3.16)	*(2.16)	** (3.71)	*(2.41)	(2.01)	** (3.09)
6. Unskilled workers and servants.....	0.364	0.331	0.341	0.364	0.331	0.341
	(1.15)	(0.64)	** (2.77)	*(2.70)	*(2.46)	*(2.57)
	0.187	0.096	0.391	0.045	0.078	0.198
	(1.15)	(0.64)	** (2.77)	(0.45)	(0.79)	** (2.02)

## NOTES

Statistical significance:

\*Significant at 95 percent.

\*\*Significant at 99 percent.

Figures under the beta coefficients in parentheses are the values of the *t* statistic.

Other variables: Also included in the regression equation from which these values were taken was number of principals and supervisors per 1,000 pupils and intelligence test score.

The relationships shown in table 8 are from the standpoint of the education of children from low socioeconomic backgrounds, quite

<sup>17</sup> A fourth variable was related to the pupil performance in most populations and that is value of school district property per pupil. However, since its relative impact was somewhat less than the other three variables, and also because it is perhaps not as amenable to policy manipulation, this variable was not included in table 8. It is interesting to note, however, that the value of school property per pupil variable was completely unrelated to the performance of pupils in the lowest socioeconomic category.

remarkable. While all three of the variables presented in the table are highly related to most of the pupil populations except for those in the lowest socioeconomic category, only the teacher-pupil ratio is significantly related to the progress of children in the unskilled worker and servant category. *Teacher-pupil ratio was the only variable found in the New York State study that was significantly related to the progress of children from the lowest socioeconomic category*, and this was true only in the school districts which had more than 2,000 pupils in average daily attendance.

Finally, turning to the relationships in the Project Talent sample, eight of the most important school variables which were collected by Project Talent personnel are presented in table 9, along with their effects upon pupil performance as represented by the Project Talent school aptitude score.<sup>18</sup> Findings are given for pupils in the lowest socioeconomic quartile and all pupils. It would appear that there is less difference between low socioeconomic pupils and all pupils in the Project Talent high schools than was demonstrated in the findings for large New York school districts. Of the variables listed, the important ones are starting salary for male teachers, class size for nonscience and mathematics classes, and class size for science and mathematics classes. Of these three variables, only one displays different performance for all pupils and pupils in the lowest socioeconomic quartile, and that is class size for nonscience and mathematics classes. Class size is not important for all pupils taken together while it is quite important for pupils from the lowest socioeconomic quartile. It would seem that most pupils can learn language skills from their home environment while disadvantaged pupils are dependent upon their school environment to learn such skills, the same result that was shown to be suggested in note 16 above.

TABLE 9.—*Project Talent pupil performance related to selected high school characteristics, all pupils and pupils from the lowest socioeconomic quartile, test score representing general school aptitude, grade 12*

High school characteristic	Lowest socioeconomic quartile			All pupils		
	Beta	<i>t</i>	<i>N</i>	Beta	<i>t</i>	<i>N</i>
Starting salary, male teachers.....	0.165	**3.97	555	0.192	**6.72	607
Average teacher experience.....	-.051	1.36	551	-.016	.69	605
Percentage of teachers fully certified.....	.016	.44	555	-.001	.03	607
Percentage of teachers with graduate work.....	-.075	1.59	556	-.005	.13	609
Class size, nonscience and mathematics classes.....	-.168	**4.43	554	-.045	1.69	608
Class size, science and mathematics classes.....	-.179	**4.56	553	-.104	**5.38	607
Use of teaching machines.....	-.093	**2.58	553	-.058	*2.21	604
Years of experience of principal.....	-.069	1.91	556	-.045	1.73	609

## NOTES

Beta coefficient: See notes for table 1.

Statistical significance:

\*Significant at 95 percent.

\*\*Significant at 99 percent.

<sup>18</sup> The Project Talent school aptitude score is a test of both language and mathematics skills.

Of more than passing interest from an educational standpoint is the evidence in the table that three teacher characteristics which are often thought quite important are completely unrelated to pupil performance. These include experience, certification, and graduate training. Indeed teacher experience and percentage of teachers with graduate work is related negatively to the performance of children from the lowest socioeconomic background at almost the 90-percent level. Even more surprising is the finding that use of teaching machines and years of principals' experience are both statistically significant negatively.

To summarize the findings in this section, then, it would appear that average class size, or what is approximately the same thing—teacher-pupil ratio—is the variable of greatest importance with respect to the education of children from disadvantaged backgrounds. Indeed, with the exception of starting salary for male teachers in the Project Talent high schools, it seems to be the only variable so related. The evidence in the paper seems to be quite strong that reduced-class size is an important prerequisite to the education of the disadvantaged.

## INVESTMENT IN THE HUMAN RESOURCES OF NEGROES

BY BARBARA R. BERGMANN\*

It is well known that Negroes, as a group, are possessed of less of the education, training, and experience needed to enter into and perform well in high-paying, high-productivity occupations than are whites. In years past, dollars which should have been invested in enhancing Negroes' ability to be economically productive—in building up "human capital" of Negroes—were not invested, in part because of discrimination, and in part because of the poverty and ignorance of the Negroes themselves. The result is that the value of the stock of human capital embodied in the average male adult Negro is on the order of \$10,000 smaller than the human capital the average white male has possession of. For the Nation as a whole, this adds up to a deficiency of around \$50 billion of investment in the human capital of adult male Negro Americans, which would have been made had they been whites.

The estimating procedure which produced these numbers is admittedly a rough one, but even if the errors are on the order of 100 percent, the conclusion must be the same: the cost to the Nation of repairing past errors of omission and commission toward Negroes is very large. The Negro deficiency of "human capital" is not the sole reason that many Negroes have low incomes and live in dilapidated housing, but it undoubtedly is a major reason for their lower standard of living. Even if discrimination against Negroes, as Negroes, were to cease entirely and immediately, the largely justified discrimination against the uneducated and inexperienced on the part of those who decide who are to occupy the higher paying jobs would deprive Negroes of an equal share in the good things of American life.

The heart of Negro disabilities is the fact that Negroes are underrepresented in the higher paying, higher productivity jobs. Some of this underrepresentation could be remedied immediately, given the willingness of whites to do so. There are many jobs for which only whites are hired currently which could be filled by Negroes, since the supply of Negro labor fit to fill them already exists, unemployed or doing lower paid work. For example, a considerable number of Negro foremen could undoubtedly be found among Negro production workers who have been passed over previously for only racial reasons. Those willing to hire Negroes for sales jobs seem to have found no difficulty in finding well-spoken, well-appearing Negroes, as a visit to many large department stores in many northern cities will confirm. Some supermarkets, when pressed, were able to come up with Negro checkers. Many banks were able to find Negroes suitable for teller's jobs. There is no reason to believe that other stores, supermarkets, and banks could not, if they wished, do the same, or that the number of Negro teamsters could not be expanded rapidly without lowering the qualifications.

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On the other hand, there are job categories where adequate representation of Negroes could not be achieved now, or even 10 years from now. These are jobs in which considerable formal training is required and/or in which a worker must be "aged" by on-the-job experience. Obvious extreme examples are physicians and upper level company executives. These are jobs in which the required investment in "human resources" is very large. While comparatively few occupational classes require as much human investment as do physicians, such investments do play a large part in the structure of American job holding. Thus the fact that Negroes have embodied in them less "human capital" than do other groups will require rectification if they are to be integrated into all levels of the economy.

When we consider the kind of programs needed to repair the large deficiency in investment in human capital of Negroes, it is clear that we must both prevent underinvestment in the new generation of Negro children, and we must repair, to the extent possible, the damage to older Negroes. These older Negroes, whose lacks produce the estimates quoted above, will be harder to help, in the sense that the amount of investment in them necessary to raise their incomes significantly may be prohibitively large. For older Negroes, then, rectification of their condition may in considerable part consist in Government-supplied income supplements rather than in "dividends" earned on an enhanced stock of human capital.

The formation of human capital takes place in schools, at the workplace where valuable experience is gained, in the physician's office or hospital where health deficiencies which lower productivity are dealt with, and even in the home, where attitudes and habits which affect work performance are ingrained. In our estimate of Negroes' deficiency in human capital, we shall deal only with the first two sources of investment where the imponderables are fewest, and where the bulk of the capital is formed.

Table I shows the distribution of nonwhite and white males over 25 by education in 1960. The mean number of school years completed by whites was 10 years, while for nonwhites the mean was 7.3 years. The difference of 2.7 years represents a major part of the deficiency of human investment. Moreover, as of 1960, 79 percent of Negroes had been born in the Southeast, an area notorious for low educational spending. In 1963 the Southern States on the average spent \$305 per pupil per year, as compared with an average of \$473 for the rest of the country. As we go further back in history, the comparison between expenditures per pupil in the South and in the rest of the country grows worse. For example, in 1929-30, all of the Southeastern States with the exception of West Virginia failed to spend as much as half of the national average of \$87 per pupil. Furthermore, the existence of segregated schools in the South means that the deficiency was compounded. In 1952, expenditures per pupil for white and Negro schools in the South were \$165 and \$115 respectively, while in 1940, when many of the present adults were children, the comparable figures were \$50 and \$22.

The assembly of these figures into a single estimate of the deficiency of educational investment in Negroes is complicated by difficulties in interpreting the rise in costs which have occurred and by the lack of information as to where Negroes actually received their education.

Furthermore, some of the Negro educational gap is represented by lack of college training, in which the costs are more than twice those of lower schools. We shall thus rest content at valuing the 2.7 missed years of school for Negroes at \$400 per year, which is roughly their replacement cost now and counting the deficiencies in quality at \$60 per year. This seems like a minimal estimate, even when the desirability of introducing a depreciation factor is included. When we apply this to the 4.7 million male Negroes who were 25 or over in 1960, we arrive at a total capital deficiency in the neighborhood of \$7 billion.

A second major source of human capital formation in which Negroes have built up deficient shares is in the area of work experience. Table 2 shows mean income of males in 1960 by age, education, and race. If we take the figures for a given educational level, it is possible to trace out the effect on income of age, which presumably represents the effect of experience. For example, white college graduates reach their peak earnings in the 45 to 54 age bracket, at which time they are earning \$6,400 more than men of similar education in the 25 to 34 age bracket. Negro college graduates start with lower pay and get smaller increases in income with experience. The advance between the 25 to 34 and 45 to 54 age brackets is only about \$1,000 for them.

Both the lower starting salary and the lower increases due to experience for Negroes reflect discrimination and the fact that Negro and white education are not on a par. However, a major cause of the failure of Negro workers to advance in salary with age to the extent that whites do is that the nature of the jobs to which they are restricted are such as to limit the value of experience. A man who sweeps the floor may be no more productive at 45 than at 25, or may be less productive; a man with the same education who starts as an operative may gain skill and may go on to supervisory work as he ages.

It is possible to use the information in table 2 to capitalize the value of experience for each group homogeneous by education, age, and race. This is done in table 3. The capital values also reach a peak and then fall, representing the fact that earnings tail off toward the end of worklife, but also and more importantly representing the fact that a man in the highest age bracket (55-64) has on the average only 5 more years to receive dividends on the experience-capital he has built up.

When we take a weighted average of the capital values of experience estimated in table 3, we arrive at a figure for whites of \$13,912 and for Negroes of \$4,049, a difference of \$9,863. It is interesting to note that weighting Negroes experience-capital values by the distribution of whites as to age and education raises the average of Negro capital value to only \$4,978, demonstrating that the observed difference in average capital values is in large part independent of educational differences. This further leads to the conclusion that this aspect of underinvestment of Negroes can be corrected, for younger groups at least, by a radical conversion of the country to desegregation of employment.

The total capital deficiency due to denial of experience to Negroes is about \$42 billion, on this calculation.

In summary, we may remark that the rough calculation of the value of the human capital deficiency of Negroes as compared with whites

which is presented here is to some degree also a rough and partial measure of what Negroes are "owed" by American society. To the extent possible, it should be "paid" by a rapid buildup in the human capital of Negroes, so that they may be enabled to earn on a more comparable basis with whites.

TABLE 1.—*Distribution of males 25 to 64 years old in the experienced labor force by race, age, and years of school completed, 1960*

[In thousands]

Race and age	Years of school completed—					
	Elementary		High school		College	
	0 to 7	8	1 to 3	4	1 to 3	4 or more
White:						
25 to 34.....	835	867	1,917	2,831	1,100	1,429
35 to 44.....	1,153	1,267	2,114	2,997	1,093	1,239
45 to 54.....	1,562	1,742	1,803	1,779	733	778
55 to 64.....	1,559	1,533	972	725	410	415
Nonwhite:						
25 to 34.....	292	116	267	203	72	57
35 to 44.....	411	131	210	160	50	45
45 to 54.....	470	117	116	72	27	25
55 to 64.....	337	69	46	29	14	12

Source: "1960 Census of Population; Occupation by Earnings and Education."

TABLE 2.—*Mean income of males 25 to 64 years old in the experienced labor force by race, age, and years of school completed, 1960*

Race and age	Years of school completed					
	Elementary		High school		College	
	0 to 7	8	1 to 3	4	1 to 3	4 or more
White:						
25 to 34.....	\$3,537	\$4,357	\$4,998	\$5,480	\$5,964	\$7,146
35 to 44.....	4,015	4,881	5,871	6,507	8,007	11,027
45 to 54.....	4,093	5,000	5,852	6,793	8,752	13,536
55 to 64.....	4,088	4,908	5,874	6,940	8,760	13,300
Nonwhite:						
25 to 34.....	2,151	2,844	3,136	3,657	4,078	4,439
35 to 44.....	2,444	3,362	3,740	4,266	4,623	5,479
45 to 54.....	2,436	3,396	3,591	4,017	4,312	5,482
55 to 64.....	2,284	3,211	3,394	3,780	3,998	5,108

Source: "1960 Census of Population Occupation by Earnings and Education."

TABLE 3.—*Estimated capital value of experience of males 25 to 64 years old in the experienced labor force by race, age, and years of school completed, 1960*

[In thousands of dollars]

Race and age	Years of school completed					
	Elementary		High school		College	
	0 to 7	8	1 to 3	4	1 to 3	4 or more
White:						
25 to 34.....	\$2.5	\$2.7	\$3.6	\$5.5	\$10.9	\$20.6
35 to 44.....	7.2	7.6	10.2	15.5	30.9	58.6
45 to 54.....	6.9	8.2	10.2	15.7	32.7	70.7
55 to 64.....	3.8	3.7	5.8	9.5	18.3	38.5
Nonwhite:						
25 to 34.....	1.6	2.8	3.2	3.2	2.8	5.5
35 to 44.....	4.1	7.6	7.9	7.4	5.2	15.0
45 to 54.....	3.0	6.1	5.7	4.6	1.0	11.7
55 to 64.....	1.2	2.8	2.6	1.8	.6	5.3

Source: Computed on the basis of data in tables 1 and 2.



# THE OCCUPATIONAL DISTRIBUTION OF THE RETURNS TO EDUCATION AND EXPERIENCE FOR WHITES AND NEGROES

BY LESTER C. THUROW\*

Individuals earn income by employing their skills and knowledge—their human capital. To earn larger incomes they must increase either the quantity or the price of their human capital. Education and on-the-job training provide the principal means for increasing the quantity of human capital. Migration, improvements in information, and the elimination of other market imperfections, such as discrimination, provide the principal means for raising the price of existing capital.

Although price and quantity effects are theoretically distinguishable, in practice the distinction is blurred by using observed income flows to measure indirectly the value of human capital. Price and quantity effects are lumped together as changes in value. In most cases this is not a serious problem since both the individual and society are interested in raising the value of human capital. Real investment is usually necessary to alter either price or quantity. The basic problem is finding that investment which will earn the greatest return. It may be an investment which will increase the quantity of human capital or it may be an investment which will raise the price of human capital.

When observed income flows are used to measure the value of human capital, efforts to measure the specific effects of any one factor must make explicit allowance for the impacts of all other factors. For example, since innate ability (whatever it is and however it is measured) and education levels are probably linked together, the observed income flows that are associated with higher levels of education are caused partially by education and partially by innate ability. If some correction is not made for ability, observed income flows will overstate the actual returns to education.

A similar problem is presented by on-the-job training. Since training and education are associated together,<sup>1</sup> the returns to more education will be overstated if the effects of training are not considered. Since training programs have costs as well as benefits, the error is compounded in calculations of net returns to education. Training bene-

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AUTHOR'S NOTE.—The research reported herein was performed pursuant to a contract with the Office of Economic Opportunity, Executive Office of the President, Washington, D.C. 20506, and was based in part on data collected by the Equal Employment Opportunity Commission, Washington, D.C., under sec. 709(c) of the Civil Rights Act of 1964, in cooperation with the Office of Federal Contract Compliance of the U.S. Department of Labor.

<sup>1</sup> Mincer, Jacob, "On-the-Job Training: Costs, Returns, and Some Implications," *The Journal of Political Economy*, Supplement, October 1962.

According to Mincer, on-the-job training accounted for 55 percent of the total training costs of those with a college education, 46 percent for those with a high school education, and 69 percent for those with an elementary education. See Mincer, *op. cit.*

fits are included in the returns to education, but training costs have not been added to the costs of education. Ability did not have any associated costs which needed to be considered.

Strenuous efforts have been made to isolate the returns to education from those caused by ability.<sup>2</sup> Less effort has been made to solve the problems presented by on-the-job training.<sup>3</sup> This is not surprising. Practically no direct information is available on either its amount or its costs. The informal aspects of much of the training mean that there is no practical method to obtain direct information. Much of the training is acquired in the course of work and does not result from deliberate training programs. Costs are involved, but they are difficult to estimate.

The problem presented by on-the-job training goes beyond that presented by ability in another way. Since innate ability cannot be altered by definition, society and individuals want to know the returns to increasing education (a variable which can be altered). On-the-job training, however, is not innate. It can be altered. Society and the individual want to know what *combination* of education and training yields the greatest net return.

The standard technique for isolating the returns to any one factor, such as education, has been to hold all other explanatory factors constant and then note the remaining differences in observed income flows. Either regression techniques or detailed data are used to hold the other explanatory factors constant. Both adjustment techniques assume that the effects of each of the explanatory factors is independent of all other explanatory factors and that their separate effects are additive. Thus, the amount of training is assumed to have no influence on the returns to education and the returns to increasing both education and training are assumed to be equal to the sum of the separate returns to increasing each variable independently.

In fact, many of the explanatory variables which affect income flows are not independent but complementary. Returns are not additive but multiplicative. This is clearly seen in on-the-job training and education. The returns from training partially depend on the level of formal education possessed by the trainee. Low education levels make some types of training impossible and other types expensive. As education levels rise, training costs fall and the variety of training which can be given expands. Complementarities also work in the opposite direction. Without training, education is of little value. Most jobs require some knowledge which is peculiar to the job and which is not or cannot be acquired in school. Without this training, education is of little value. With complementarities, the benefits from both education and training will be larger than the sum of the benefits from education and training separately.<sup>4</sup>

Corresponding to the earlier distinction between price and quantity effects on the value of human capital, there are two main sources of complementarities. Technological complementarities occur when the skills and knowledge acquired in school are complementary with the

<sup>2</sup> For the most comprehensive attempt see: Hanocho, Glora, "An Economic Analysis of Earnings and Schooling." *Journal of Human Resources*, Summer 1967.

<sup>3</sup> For the one major article see: Mincer, *op. cit.*

<sup>4</sup> The same kinds of complementarities would exist between migration and education or training.

skills and knowledge acquired in training. Price complementarities occur when market imperfections are reduced in the process of acquiring education and training. Thus, a Negro might receive price complementarities if higher levels of education and training allowed him to move into occupations with less discrimination.

The degree of complementarity obviously differs for different jobs. In some jobs there are few complementarities; in others education and training are linked rigidly together. *A-priori* reasoning leads to the conclusion that complementarities are important and the data presented below confirm this conclusion.

Ignoring complementarities leads to biased estimates of the returns to increasing education. Holding training levels constant while observing the returns to education may provide a valid estimate of the returns to education within each training level, but it provides a distorted view of the general returns to education. Part of the returns to education arise from shifting training levels as well as moving up the income ladder within each training level. To estimate the returns to education while holding the level of training constant is to seriously underestimate the actual returns to education.<sup>5</sup>

The existence of complementarities means that a precise functional relationship must be specified between the value of human capital and its explanatory factors. This function will be called the human capital function. All of the explanatory factors which are linked together by complementarities must be considered together and their interactions specified explicitly. With complementarities, the impact of education cannot be estimated by itself. The returns to education must be estimated together with the returns to other factors.

This paper begins the task of specifying a human capital function by considering the joint impact of formal education and on-the-job training. These two factors were chosen since they are the major instruments for altering the quantity of human capital. In addition, the impact of training has typically been ignored in calculations of the returns to education. Price effects are investigated by studying the different returns to education and training across race, occupation, and region.

The empirical work presented below is not definitive since all of the relevant explanatory factors have not been considered.<sup>6</sup> The empirical work does, however, confirm the need for a human capital function and its precise specification. The empirical complementarities between education and training are large and should not be ignored in evaluating programs to alter the distribution of income by changing the distributions of training or education. For males in the American economy, the returns to both education and training are approximately nine times as large as the returns to education and training separately. The observed price differences across race, occupation, and region are equally large. For Negroes, these price differences severely reduce the complementarities between education and training as well as their absolute returns.

<sup>5</sup> This is equivalent to holding occupations constant while studying the returns to education. Many of the returns to education occur by moving across occupations rather than within occupations.

<sup>6</sup> Most notably innate ability.

## THE MODEL

Individuals receive formal and informal training while they are at work. One year of work experience will have different effects on the value of an individual's human capital depending on the amount of training received or the impact of work experience on the price of existing human capital. Everyone has 1 year of experience after 1 year of work, but the returns from that experience—the income flows produced by it—may be very different. If observed income flows are higher, the value of human capital has increased. This may be caused by either increases in the quantity of human capital or its price.

If price effects do not occur, income flows depend on the amount of training received. Thus the returns to a year of work experience can be used as a surrogate variable to measure the returns to investment in on-the-job training. If labor training markets are in equilibrium, the rates of return on training will be equal for all training projects. In this case different returns to experience would reflect different amounts of investment in on-the-job training. Equal investments would earn equal returns. If labor training markets are not in equilibrium, this conclusion cannot be drawn, but the returns to experience still indicate the pattern of gross benefits from training. If work experience affects the price of human capital and labor training markets are not in equilibrium, the function simply measures the gross returns to a year of work experience.

A function analogous to the production function can be used to measure the returns to experience and education and the complementarities between them. This function is the human capital function (see equation 1). Just as the real variables and parameters on the right-hand side of a production function determine the annual flow of goods and services so do the real variables and parameters on the right-hand side of the human capital function determine the annual flow of income which will be produced by the stock of human capital. According to the human capital function, income flows depend on the years of education and experience ( $Ed$  and  $Ex$ ), the income elasticities with respect to education and experience ( $b$  and  $c$ ), and a shift coefficient ( $A_j$ ). Making the assumptions which were outlined above, the amount of on-the-job training is represented by the years of experience and the income elasticity with respect to experience. The shift coefficient represents the impact of different capital-labor ratios, the level of technical progress, discrimination, unionization, market imperfections, and any other relevant factors except education and experience. The shift coefficient differs among different groups and over time, but for any one group and at any point in time it can be regarded as a constant.

$$(1) \quad I_{j,ik} = A_j Ed_i^b Ex_k^c$$

where

$I_{j,ik}$  = income in occupation  $j$  for an individual with  $i$  years of education and  $k$  years of experience

$A_j$  = shift coefficient for occupation  $j$

$Ed_k = i$  years of education

$Ex_k = k$  years of experience

$b_j$  and  $c_j$  = income elasticities for occupation  $j$

The impacts of education and experience on incomes can be found by taking the partial derivatives of the human capital function (see equations 2 and 3). As these derivatives indicate, the marginal product of education depends on the shift coefficient, the years of experience, and the years of education already completed. In the same manner the marginal product of experience depends on the shift coefficient, the years of education, and the years of experience already completed. As both of these functions indicate, the returns to either education or experience depend on the level of the other.

$$(2) \quad \frac{\partial I_{jtk}}{\partial Ed_j} = A_j b_j Ed_j^{b_j-1} Ex_k^{c_j}$$

$$(3) \quad \frac{\partial I_{jtk}}{\partial Ex_j} = A_j Ed_j^{b_j} c_j Ex_k^{c_j-1}$$

Since the income elasticities (b and c) are not constrained, there may be increasing or decreasing returns to increases in education and experience. If the sum of the two elasticities is greater than one, there are increasing returns; and if the sum of the two elasticities is less than one, there are decreasing returns.

There is also no reason why the elasticities should be constant over all ranges of education and experience. College may produce higher returns than high school. To test for such differences, the function can be disaggregated into different ranges of education and experience. (See equation 4.)

$$(4) \quad I_{jtk} = A_j \sigma_{-1}^n Ed_j^{b_j} \tau_{-1}^m Ex_k^{c_j}$$

where

$n$  = education classes

$m$  = experience classes

If the human capital function is fit to actual income data, the function can be judged by the standard statistical tests. The usual calculations of the returns to education cannot do this. Observed income differences are adjusted for what is believed to be other relevant factors and then education is assumed responsible for the residual. No statistical tests are possible on this latter assumption.<sup>7</sup> The human capital function, however, has the advantage of providing statistical tests of its own validity as well as providing estimates of the empirical size of the relationships.

<sup>7</sup> The additivity assumption can be compared with the human capital function of this paper by testing the equation  $I = a + b Ed + c Ex$ . The form of the function given in equation (1) does a better job of fitting the observed data. The additive model leads to negative incomes for groups with little education and experience.

## THE DATA

The human capital function was fitted to 1960 mean income data for males 18 to 64 years of age.<sup>8</sup> Functions were estimated for whites and Negroes,<sup>9</sup> for 10 occupations, and for the North and South. Years of experience were calculated by assuming that each individual begins work at 18 if he had finished school by this age. If not, work begins at the school leaving age. Thus, a college graduate is assumed to begin work at 22. Eighteen was selected at the starting age for those with 12 or fewer years of education since child labor laws and workmen's compensation laws prevent earlier entry into many jobs. A worker's years of experience were found by subtracting his starting age from his current age. To test the hypothesis that different ranges of education and experience have different elasticities, the education variable was divided into three variables (0 to 8 years, 9 to 12 years, and more than 12 years) and experience was divided into four variables (0 to 5 years, 6 to 15 years, 16 to 35 years, and more than 35 years). In a cross section analysis of male incomes the human capital function worked very well. In most classifications over 95 percent of the variation in incomes was explained. (See app. A.)

## THE RESULTS: WHITE VERSUS NEGRO

Income elasticities with respect to education and experience were not constant for all levels of education and experience. For white males the income elasticity was 0.23 for elementary education, 0.61 for high school education, and 2.10 for college education<sup>10</sup> (see table 1). For Negro males the education elasticities were 0.32, 0.32, and 1.49, respectively. The elasticities for Negroes were slightly larger for elementary education, but much smaller for high school and college education.

<sup>8</sup> All data come from the 1960 census volume, "Occupation by Earnings and Education." North refers to North and West in census classifications.

<sup>9</sup> Negroes and nonwhites will be used interchangeably since 92 percent of nonwhites are Negroes. All data refers to the census category nonwhite.

<sup>10</sup> The income elasticities with respect to education are greater than those for any occupation since a large part of the gain is explained by shifts across occupations rather than within occupations. Since those with high education levels are concentrated in occupations with high shift coefficients and high income elasticities with respect to experience, the mean rise in income from low to high education levels is greater for the total population than it is for any individual occupations.

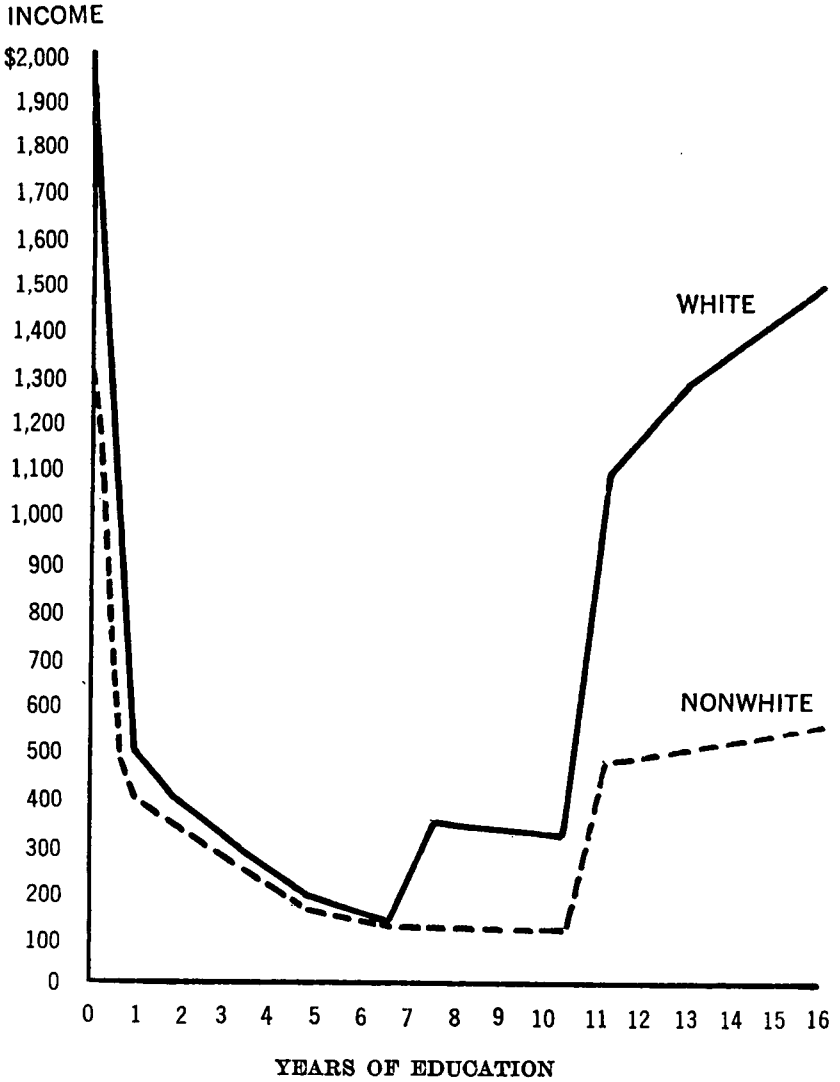
TABLE 1.—Income elasticities of education and experience <sup>11</sup>

	Education			Experience				Shift coefficient
	0 to 8	9 to 12	12 and up	0 to 5	6 to 15	16 to 35	35 and up	
<b>Professional:</b>								
Northern white.....	0.05	0.43	1.54	0.43	0.43	0.20	-0.24	\$1,619
Southern white.....	.21	.73	1.57	.32	.60	.16	-----	971
Nonwhite.....	.94	.94	.94	.14	.59	-----	-----	216
<b>Managerial:</b>								
Northern white.....	.16	.58	1.95	.48	.36	.36	-----	1,389
Southern white.....	.11	.80	1.79	.19	.51	.25	-----	1,813
Northern white.....	.30	.66	.66	.42	.42	-----	-----	739
<b>Clerical:</b>								
Northern white.....	.09	.24	.83	.25	.48	-----	-----	1,695
Southern white.....	.19	.19	1.30	.52	.19	.19	-----	1,005
Northern nonwhite..	.05	.38	.54	.33	.33	.04	-----	1,465
Southern nonwhite..	.14	.59	.59	.37	.37	.01	-.12	925
<b>Sales:</b>								
Northern white.....	.14	.43	1.59	.24	.69	-----	-----	1,417
Southern white.....	.24	.59	1.83	.23	.65	-----	-----	979
<b>Craftsmen:</b>								
Northern white.....	.08	.23	1.11	.21	.40	-.06	-----	2,225
Southern white.....	.16	.43	1.31	.39	.39	-.07	-.18	1,196
Northern nonwhite..	.13	.13	.67	-.06	.58	-.11	-----	2,143
Southern nonwhite..	.06	.58	.58	.33	.33	-.03	-.44	1,025
<b>Operatives:</b>								
Northern white.....	.08	.23	1.11	.21	.40	-.06	-----	2,225
Southern white.....	.17	.44	.91	.62	.26	-.06	-.24	829
Northern nonwhite..	.06	.16	.41	.30	.30	-----	-----	1,661
Southern nonwhite..	.17	.25	.64	-.07	.55	-----	-----	1,233
<b>Laborers:</b>								
Northern white.....	.09	.26	.26	.42	.42	-.15	-----	1,212
Southern white.....	.22	.65	1.07	.76	.15	-.06	-.39	360
Northern nonwhite..	.03	.21	-----	.45	.26	-.02	.15	1,235
Southern nonwhite..	.16	.16	.94	.36	.36	-.00	-----	720
<b>Services:</b>								
Northern white.....	.20	.20	.71	.37	.62	-.19	-----	887
Southern white.....	.14	.78	-----	.92	.26	-.09	-.65	469
Northern nonwhite..	-.01	.32	.32	.87	.05	.05	-----	732
Southern nonwhite..	.07	.25	.74	.38	.38	-.06	-----	783
<b>Farmers:</b>								
Northern white.....	.08	.54	1.31	.54	.32	-.16	-.41	948
Southern white.....	.33	1.17	2.84	.23	.55	-.11	-.11	556
<b>Total:</b>								
White.....	.23	.61	2.10	.44	.44	.13	.28	879
Nonwhite.....	.32	.32	1.49	.13	.56	-.08	-----	797
Northern white.....	.15	.56	2.07	.44	.44	.12	-.31	1,107
Southern white.....	.25	.83	2.15	.45	.45	.11	-.32	724
Northern nonwhite..	.07	.25	1.42	.21	.44	-.05	-----	1,537
Southern nonwhite..	.27	.27	1.81	.13	.55	-.11	-.11	728

<sup>11</sup> In several occupations there were not enough Negroes to estimate the human capital function.

White male income elasticities with respect to experience were 0.44 for both the first 5 years and the next 10 years of experience, 0.13 for the 16th to 35th years and -0.28 for anything over 35 years of experience. For Negro males the income elasticities of experience were 0.13

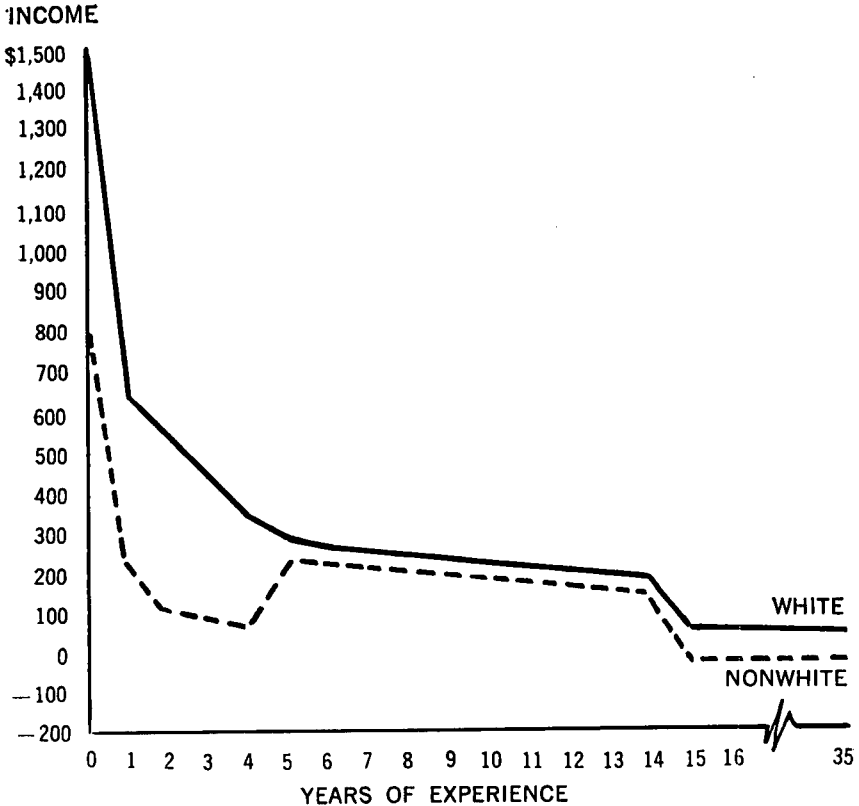
CHART 1



MARGINAL PRODUCT OF EDUCATION FOR MALES WITH 20 YEARS OF EXPERIENCE IN 1960



CHART 2



MARGINAL PRODUCT OF EXPERIENCE FOR MALES WITH 10.5 YEARS OF EDUCATION IN 1960

in the first 5 years, 0.56 in the next 10 years, and  $-0.08$  for anything over 15 years of experience. Negroes receive less benefit from experience early in their careers and their human capital begins to depreciate sooner than that for whites.<sup>12</sup>

The marginal products of education and experience can be seen in charts 1 and 2.<sup>13</sup> For the average white male with 20 years of experience, the value of education falls from \$2,004 per year for the first year to \$152 for the eighth year and then rises to \$1,468 for the 16th year. The returns to the average Negro are much smaller. The value of education falls from \$1,384 per year for the first year to \$110 for the 12th

<sup>12</sup> Age can cause skills to depreciate and skills can become obsolete. Earlier depreciation for Negroes may be due to lower health standards or less permanent skills.

<sup>13</sup> The function is fit in such a way as to provide step discontinuities in the value of the function at 8 years of education and 12 years of education. Given market imperfections, completing high school may be much more valuable than dropping out 1 day before graduation. An alternative hypothesis would be that there are kinks in the marginal product curves at these points but not step discontinuities. This possibility is currently under study.

year, and then rises to \$561 for the 16th year. As education levels rise, the Negro falls further and further behind. With no education his income is \$624 lower than that for a white male with no education (see table 2). With an eighth-grade education he is \$1,446 behind a comparable white; with a 12th grade education he is \$2,356 behind; with a 16th-grade education he is \$5,477 behind. The income gap grows as education rises, and grows at an increasing rate. Discrimination hurts the better educated most.

Returns to experience do not show the same general U-shaped pattern. The value of experience is very high in early years, but falls off as the amount of experience increases. For the average white male with 10.5 years of education, the marginal product of experience falls from \$1,471 for the first year of experience to \$24 for the 35th year. For Negro males, experience is less valuable and shows a slightly different pattern. The first year of experience is only worth \$778, but the returns rise in the sixth to 15th year to levels almost equal to those for whites. The biggest gap in the returns to experience comes in the early working years. A Negro male with no years of experience and 10.5 years of education begins with an income \$700 higher than that of a white in the same position (see table 2).<sup>14</sup> After 5 years of experience, white incomes are \$1,351 ahead of Negro incomes. At 15 years the gap is \$1,724 and at 35 years, \$2,626. Most of the income gap caused by experience is built up during the first 5 years of a worker's career. During these years of high training investments, Negroes are receiving much less training than whites.

#### NORTH VERSUS SOUTH

The marginal returns to education are higher in the South than in the North. For a white male in the North with 20 years of experience, a high school education increases his annual income by \$4,576 above what it would have been with no education. For a similar white male in the South, 12 years of education raise his annual income by \$5,213. For Negroes the comparable figures are \$1,906 and \$2,586. Marginal returns to education are lower for Negroes but the same North-South difference exists.

Although the marginal returns to education are higher in the South, average incomes, are higher in the North. Higher shift coefficients and greater returns to experience more than offset the differences in marginal returns to education. A white male with 20 years of experience and 12 years of education earns \$467 more in the North than he would in the South, and a Negro male earns \$1,350 more. The incentives for a Negro to move North to benefit from the higher shift coefficients and more extensive or higher priced training are much greater than those for a white.<sup>15</sup>

<sup>14</sup> This is caused by an income elasticity with respect to education which is higher for Negroes for the first 8 years than for whites. At higher education levels whites would have higher incomes.

<sup>15</sup> To gain the benefit of higher returns to experience a Negro would have to move north to get the better training. Experience probably does not become more valuable by simply moving north, but this could happen if discrimination were lowering wages more in the South than in the North.

TABLE 2.—*The income gap*

	20 years of experience		10.5 years of education	
	Years of education	Amount	Years of experience	Amount
Whites minus nonwhites.....	0	\$624	0	-\$700
	8	1,446	5	1,351
	12	2,356	15	1,724
	16	5,477	35	2,626
Northern whites minus southern whites.....	0	1,104	0	38
	8	875	5	402
	12	467	15	596
	16	580	35	712
Northern nonwhites minus southern nonwhites.....	0	2,030	0	-32
	8	1,241	5	999
	12	1,350	15	1,273
	16	1,479	35	1,384
Northern white minus northern nonwhite.....	0	-605	0	-489
	8	1,180	5	906
	12	1,854	15	1,479
	16	5,109	35	2,284
Southern white minus southern nonwhite.....	0	321	0	-559
	8	1,546	5	1,503
	12	2,599	15	2,156
	16	6,008	35	2,956
Southern white minus northern nonwhite.....	0	-1,709	0	-527
	8	305	5	504
	12	1,598	15	883
	16	4,529	35	1,572

As educational attainment rises, the income gap between North and South shrinks, but the gap between whites and Negroes widens (see table 2). As experience increases, the income gaps both between North and South and between white and nonwhite widen. Southern Negro males are particularly handicapped by a lack of training investments. The first 5 years of experience increase the income gap between northern and southern whites by \$364, but they increase the income gap between northern and southern Negroes by \$1,031. Northern Negroes receive more investment in on-the-job training or they have a more favorable price structure than southern Negroes, but they receive much less training or they have a more unfavorable price structure than either northern or southern whites.

The first 5 years of experience increases the income gap between northern whites and Negroes by \$1,395 and between southern whites and northern Negroes by \$1,031.

The marginal returns to education are large (see chart 1 and table 2). The income differences produced by education, however, are not much larger than those produced by experience (see chart 2 and table 2). Differences in returns to experience and in the training investments that produce these returns explain much of the North-South and white-nonwhite income differences. To close the income gaps would require changes in the distribution of on-the-job training as well as education.

Implications of the above results can be seen in the situation facing a high school student with 10.5 years of education who is trying to decide whether to continue school or begin working. If he is white, the first year of experience is worth \$1,528 in the North and \$1,343 in the South. Another year of education is worth \$12 and \$15, respectively. If he is Negro, a year of experience would be worth \$1,179 in the North and \$604 in the South. Another year of education would be worth \$16

and \$19, respectively. By the time the individual has accumulated 20 years of experience, however, the relative values of having previously obtained another year of education or experience are reversed regardless of color. The extra year of education is more valuable than the extra year of experience. For northern whites with 20 years of experience the extra year of education raises incomes by \$312 and the extra year of experience raises incomes by \$37. A similar reversal exists for the Negro. If time horizons are short and discount rates are high, the individual will drop out of school. With low time horizons and low discount rates the individual will stay in school.

### OCCUPATIONAL DIFFERENCES

The same general pattern of returns is visible in almost all occupations. Shift coefficients are higher in the North. Experience is more valuable in the North; education is more valuable in the South. Within each region the returns to both education and experience are lower for Negroes, but the returns to experience for northern Negroes are sometimes higher in specific occupations than the returns to experience for southern whites. Among nonwhites the returns to experience are much higher in the North and the returns to education are slightly higher in the South (see table 1).

Craftsmen present the principal exception to these rules. The returns to education for northern Negroes are high and the returns to experience are low. Northern Negroes receive little investment in training, but a high level of education allows them to move into higher paying jobs within the crafts. In the South experience has a much larger return for Negroes, but education a smaller one. More training is done, but formal education is not a route into higher paying jobs.

Although the general pattern of returns across occupations are similar, the magnitudes of the effects differ widely (see table 3). This is true both across occupations and within occupations. The large differences can be seen within the professional occupations. For the northern white professional worker, 35 years of experience and no education results in an annual income \$4,685 higher than that achievable with no education and no experience. The same 35 years of experience is worth \$1,255 to a southern white but only \$5 to a Negro.<sup>16</sup> The gains from education are reversed. The increase in income resulting from 16 years of education is \$283 for the northern white, \$652 for the southern white, and \$1,542 for all Negroes.

<sup>16</sup> Most of the nonwhite male professionals are in the South.

TABLE 3.—Annual increase in incomes due to education and experience

	Experience: 35 years of exper- ience and no education	Education: 16 years of educa- tion and no ex- perience	Both: 16 year- of education and 35 years of ex- perience
<b>Professional:</b>			
Northern white.....	\$4,685	\$283	\$12,042
Southern white.....	1,255	692	11,777
Nonwhite.....	5	1,542	6,943
<b>Managerial:</b>			
Northern white.....	2,870	399	18,442
Southern white.....	2,799	1,754	14,832
Nonwhite.....	639	294	6,795
<b>Clerical:</b>			
Northern white.....	2,473	556	6,809
Southern white.....	1,381	175	5,411
Northern nonwhite.....	2,731	227	7,787
Southern nonwhite.....	1,239	252	5,061
<b>Sales:</b>			
Northern white.....	2,140	918	10,901
Southern white.....	838	1,098	10,150
<b>Craftsmen:</b>			
Northern white.....	2,599	918	7,736
Southern white.....	1,470	350	7,869
Northern nonwhite.....	283	3,233	4,111
Southern nonwhite.....	1,707	207	4,006
<b>Operatives:</b>			
Northern white.....	1,625	1,170	5,155
Southern white.....	1,280	83	6,233
Northern nonwhite.....	2,471	260	4,737
Southern nonwhite.....	160	2,436	3,113
<b>Laborers:</b>			
Northern white.....	2,079	138	4,652
Southern white.....	676	11	5,351
Northern nonwhite.....	2,812	42	3,735
Southern nonwhite.....	778	209	3,452
<b>Services:</b>			
Northern white.....	1,039	252	5,390
Southern white.....	1,375	8	4,665
Northern nonwhite.....	3,353	3	4,022
Southern nonwhite.....	1,443	112	3,169
<b>Farmers:</b>			
Northern white.....	1,889	115	6,036
Southern white.....	248	1,375	6,487

Incomes rise as education or experience rise. More important is what happens when education and experience increase simultaneously. The impact is much greater than the sum of the two separate impacts. Northern white managers provide a good example (see table 3). If the effects of having 35 years of experience and 16 years of education were no greater than the sum of the two separate effects, 35 years of experience and 16 years of education would raise incomes by \$3,269 per year above that of the individual with no education and no experience. In fact, increasing education and experience simultaneously raises incomes to \$18,442 above what they would have been with no education and no experience. The combined effect of education and

experience is almost 6 times as great as the sum of the two individual effects. The complementarities between education and experience are large but they differ widely by occupation, race, and region.

Factors other than education and experience play an important role in income differences. These other factors are measured by the shift coefficients. They include the impact of capital-labor ratios, unionization, technical progress, discrimination, and other market imperfections. The shift coefficients range from \$2,225 for northern white craftsmen to \$360 for southern white service workers. Shift coefficients are higher in the North than in the South, but there is an interesting racial difference. The shift coefficients for whites and nonwhites are approximately equal in the South. In the North the shift coefficients for Negroes are higher than that for whites. Northern Negro males are in occupations where the returns to education are smaller and where the investment in training is less, but they are occupations and industries, such as durable goods with high shift coefficients. Southern Negroes receive even less training and they are not located in occupations with high coefficients.

#### IMPLICATIONS

The existence of strong complementarities means that the returns from programs designed to improve education, on-the-job training, or shift coefficients are heavily dependent on what is happening simultaneously to each of the other variables. Increasing education will have little effect on incomes if the individuals work in areas with low shift coefficients and little training. Conversely, education will have a large impact on incomes if the individuals work in areas with ample training and high shift coefficients. The same complementarities affect the returns to programs designed to alter either training or shift coefficients. If the other necessary factors are not present, the observed returns to any one program will be very low. Thus, any program designed to affect one of the variables, such as on-the-job training, will appear to fail unless it is coordinated with other programs to alter simultaneously the structure of education and shift coefficients. This means education programs, training programs, and efforts to move individuals into areas with high shift coefficients must be coordinated. The combination of policies which will produce the greatest income changes at the least cost cannot be determined abstractly. The present positions of the individuals to be aided must be determined. Only then can the marginal benefits and costs be determined.

Given the general characteristics of the poor, large returns could be earned by remedial programs designed to raise everyone in the labor force to at least eighth grade standards of literacy. The social benefits from such a program are large, but the benefits are also large from a narrow economic point of view. The marginal income flows from raising education levels in this range are great and the complementarities with on-the-job training programs are very important. Unless an individual possesses an eighth grade standard of literacy he is

under a very severe competitive handicap and as general education levels rise this handicap will grow. Since most individuals with less than an eighth grade standard of literacy are beyond the normal school age, efforts to bring the working population up to this standard must focus on adult education programs. This is precisely the area where the least effort has been made in educational programs for the poor. Concentrating on children might eliminate poverty in the long run, but the long run is intolerably long. Something must be done for those who are going to be in the labor force for the next 30 years.

Education plays a vital role in eliminating the differences between the income distributions for whites and Negroes. Negroes receive less education and part of the observed differences in the economic returns to education for Negroes is caused by differences in the quality of the education that is provided. The principal need, however, is for more on-the-job training. More than 80 percent of the difference between white and Negro incomes is explained by differences in the returns to experience. Negroes receive much less training. Unless this defect can be overcome, education programs will have little impact on the incomes of Negro Americans.

## APPENDIX A

Equation (1) is estimated in the following form:

$$\ln I = A + b_1 \ln Ed_1 + b_2 \ln Ed_2 + b_3 \ln Ed_3 + C_1 \ln Ex_1 + C_2 \ln Ex_2 + C_3 \ln Ex_3 + C_4 \ln Ex_4$$

Where

$I$  = mean income level

$Ed_1$  = years of education possessed by individual up to a maximum of 8

$Ed_2$  = years of education possessed by individual up to a maximum of 12

$Ed_3$  = total years of education possessed by individual

$Ex_1$  = years of experience up to a maximum of 5

$Ex_2$  = years of experience up to a maximum of 15

$Ex_3$  = years of experience up to a maximum of 35

$Ex_4$  = total years of experience

To calculate the elasticities for different levels of education and experience, the  $b$  and  $c$  coefficients are added together. Thus the elasticity for the 0-8 educational range is  $b_1 + b_2 + b_3$ , the elasticity for the 9-12 range is  $b_2 + b_3$ , and the elasticity for the above 12 range is simply  $b_3$ . The elasticities of experience are calculated in a similar manner. Since the log of zero is negative infinity, individuals with no education are inserted at the value of 0.01 years of education rather than at their actual value. Variables were dropped from the regressions when they did not exceed their standard errors.



TOTAL: NORTH, WEST, AND SOUTH

	A	b <sub>1</sub>	b <sub>2</sub>	b <sub>3</sub>	c <sub>1</sub>	c <sub>2</sub>	c <sub>3</sub>	c <sub>4</sub>	R <sup>2</sup>	S <sub>e</sub>
White.....	6.7783 (.1161)	-0.3796 (.1646)	-1.4547 (.2588)	2.0986 (.1721)	-----	0.3132 (.0645)	0.4086 (.1718)	-0.2778 (.1762)	0.97	0.081
Nonwhite.....	6.6087 (.0838)	-----	-1.1696 (.1319)	1.4910 (.1177)	-----	-.4292 (.1130)	.6384 (.0898)	-----	.97	.060
Professional, nonwhite.....	5.3753 (.4437)	-----	-----	.9377 (.1595)	-----	-.4535 (.1664)	.5910 (.0900)	-----	.94	.082

NORTH AND WEST

Professional, white.....	7.3896 (.1341)	- .3824 (.1794)	-1.1089 (.2650)	1.5436 (.1731)	-----	.2366 (.0655)	.4359 (.1729)	- .2393 (.1772)	.95	.082
Farmers, white.....	6.8539 (.1508)	- .4601 (.1130)	- .7650 (.1810)	1.3069 (.1237)	-----	.2193 (.2136)	.4774 (.1170)	- .4102 (.1325)	.97	.055
Managers:										
White.....	7.2361 (.1312)	- .4268 (.1668)	-1.3716 (.2506)	1.9540 (.1624)	.1163 (.0731)	-----	.3604 (.0267)	-----	.97	.077
Nonwhite.....	7.2395 (.0689)	- .3355 (.0918)	- .1535 (.1514)	.5384 (.1058)	-----	.2878 (.0355)	.0448 (.0244)	-----	.97	.038
Clerical:										
White.....	7.4355 (.0802)	- .1496 (.1011)	- .5919 (.1609)	.8301 (.1071)	- .2349 (.0790)	-----	.4804 (.0369)	-----	.97	.050
Nonwhite.....	7.2985 (.0689)	- .3355 (.0918)	- .1535 (.1514)	.5384 (.1058)	-----	.2878 (.0355)	.0448 (.0244)	-----	.97	.038
Sales, white.....	7.2564 (.1364)	- .2894 (.1704)	-1.1652 (.2739)	1.5907 (.1823)	- .4945 (.1345)	-----	.6947 (.0628)	-----	.96	.085
Crafts:										
White.....	7.7073 (.0966)	- .1421 (.1186)	- .8818 (.1913)	1.1069 (.1289)	- .1861 (.1118)	-----	.4604 (.1899)	- .0599 (.0393)	.95	.059
Nonwhite.....	7.6699 (.3725)	-----	- .5345 (.2445)	.6671 (.2339)	- .6415 (.4949)	-----	.6903 (.2234)	- .1094 (.0667)	.93	.052
Operatives:										
White.....	7.3526 (.0662)	- .0977 (.0833)	- .1746 (.1481)	.3777 (.0974)	-----	.4420 (.0351)	- .0749 (.0258)	-----	.97	.047
Nonwhite.....	7.4149 (.0528)	- .0995 (.0733)	- .2512 (.1825)	.4121 (.1494)	-----	.2062 (.0108)	-----	-----	.97	.036
Services:										
Whites.....	6.7878 (.1361)	-----	- .5176 (.2143)	.7142 (.1911)	- .2475 (.1835)	-----	.8165 (.1458)	- .1942 (.1644)	.93	.097
Nonwhite.....	6.5962 (.1179)	- .3309 (.0932)	-----	.3244 (.0634)	.8269 (.0973)	-----	.0463 (.0256)	-----	.95	.059
Laborers:										
White.....	7.100 (.0847)	- .1724 (.0865)	-----	.2613 (.0555)	-----	.5659 (.0484)	- .1486 (.0357)	-----	.96	.061
Nonwhite.....	7.1189 (.1171)	- .1771 (.0821)	.2054 (.0640)	.1912 (.1675)	.2808 (.0965)	-----	- .1670 (.1256)	- .1478 (.1147)	.97	.038
White.....	7.0092 (.1241)	- .4056 (.1760)	-1.5140 (.2767)	2.0699 (.1841)	-----	.3161 (.0690)	.4333 (.1837)	- .3094 (.1884)	.96	.087
Nonwhite.....	7.3378 (.1077)	- .1772 (.1322)	-1.1721 (.2133)	1.4192 (.1437)	- .2271 (.1247)	-----	.4833 (.0991)	- .0456 (.0438)	.95	.066

## SOUTH

	A	b <sub>1</sub>	b <sub>2</sub>	b <sub>3</sub>	c <sub>1</sub>	c <sub>2</sub>	c <sub>3</sub>	c <sub>4</sub>	R <sup>2</sup>	S <sub>e</sub>
Professional, white.....	6. 8783 (. 1773)	-. 5180 (. 2208)	-. 8388 (. 3392)	1. 5712 (. 2222)	-. 2790 (. 2129)	. 4396 (. 1699)	. 1593 (. 0689)	-----	. 94	. 101
Farmers, white.....	6. 3208 (. 1505)	-. 8403 (. 1225)	-1. 6669 (. 2241)	2. 8351 (. 1619)	-. 3205 (. 1937)	. 6568 (. 1115)	-----	-. 1111 (. 0426)	. 99	. 061
Managers, white.....	7. 5026 (. 1215)	-. 6933 (. 1513)	-. 9945 (. 2324)	1. 7938 (. 1523)	-. 3231 (. 1459)	. 2547 (. 1164)	. 2540 (. 0472)	-----	. 97	. 069
Clerical:										
White.....	6. 9129 (. 1136)	-----	-1. 1153 (. 1187)	1. 3032 (. 1666)	. 3266 (. 0836)	-----	. 1926 (. 0287)	-----	. 93	. 081
Nonwhite.....	6. 8295 (. 0638)	-. 4523 (. 0886)	-----	. 5936 (. 0578)	-----	. 3620 (. 0356)	. 1253 (. 1061)	-. 1165 (. 1138)	. 99	. 029
Sales, white.....	6. 8867 (. 1216)	-. 3530 (. 1520)	-1. 2339 (. 2442)	1. 8282 (. 1666)	-. 4181 (. 1199)	. 6476 (. 0560)	-----	-----	. 97	. 076
Crafts:										
White.....	7. 0870 (. 0782)	-. 2641 (. 1064)	-. 8830 (. 1727)	1. 3085 (. 1179)	-----	. 4586 (. 0455)	. 1179 (. 1117)	-. 1829 (. 1140)	. 97	. 053
Nonwhite.....	6. 9329 (. 0872)	-. 5226 (. 1156)	-----	. 5819 (. 0894)	-----	. 3582 (. 0600)	. 4119 (. 1763)	-. 4380 (. 1681)	. 94	. 055
Operatives:										
White.....	6. 7201 (. 1176)	-. 2689 (. 0823)	-. 4711 (. 1533)	. 9091 (. 1197)	. 3613 (. 1626)	. 3166 (. 0912)	. 1821 (. 1202)	-. 2410 (. 1076)	. 98	. 040
Nonwhite.....	7. 1172 (. 0849)	-. 0746 (. 0658)	-. 3903 (. 1802)	. 6379 (. 1512)	-. 6196 (. 1074)	. 5528 (. 0400)	-----	-----	. 98	. 031
Services:										
White.....	6. 1501 (. 2509)	-. 6456 (. 1639)	. 7808 (. 1220)	-----	. 6635 (. 3537)	. 3478 (. 1947)	. 5652 (. 2560)	-. 6520 (. 2364)	. 94	. 084
Nonwhite.....	6. 6637 (. 0835)	-. 1844 (. 1146)	-. 4924 (. 2860)	. 7420 (. 2351)	-----	. 4434 (. 0526)	-. 0625 (. 0378)	-----	. 95	. 056
Labor:										
White.....	5. 8871 (. 2323)	-. 4290 (. 1361)	-. 4147 (. 4044)	1. 0673 (. 3727)	. 8111 (. 3291)	. 2144 (. 1857)	. 3284 (. 2436)	-. 3915 (. 2102)	. 96	. 064
Nonwhite.....	6. 5797 (. 0823)	-----	-. 7769 (. 3566)	. 9400 (. 3476)	-----	. 4184 (. 0633)	-. 0627 (. 0468)	-----	. 93	. 046
White.....	6. 5847 (. 1150)	-. 5755 (. 1631)	-1. 3252 (. 2564)	2. 1544 (. 1706)	-----	. 3359 (. 0639)	. 4303 (. 1703)	-. 3164 (. 1746)	. 97	. 081
Nonwhite.....	6. 5898 (. 1088)	-----	-1. 5479 (. 1728)	1. 8131 (. 1534)	-. 4190 (. 1418)	. 6586 (. 1131)	-----	-. 1117 (. 0511)	. 95	. 079

# STRATEGY FOR NEGRO ECONOMIC EQUALITY

BY OTTO ECKSTEIN\*

The gap between Negro and white job opportunities is the greatest challenge to domestic economic policy in the United States today. The Nation's social fabric is being tested as new Negro jobs are not keeping pace with new expectations.

Yet the progress of the last few years is large and a turning point in the drive for equality of opportunity has probably been reached. The white collar and the managerial ranks of our large enterprises at last are opening up. The demand for qualified Negroes all of a sudden exceeds the number available. And Whitney Young's then radical call of 3 years ago, asking American business not just to be an equal opportunity employer but to actively recruit and develop Negro applicants, has come to be widely accepted. The recent research report of the National Industrial Conference Board on Negro employment,<sup>1</sup> containing 35 company case studies, shows that companies can make progress if they wish to make employment available to Negroes, and many companies at last have the wish to open their doors.

At this point of breakthrough in job opportunities, attention has to focus on the underinvestment in Negro human resources. Let me give some quantitative indications of the task to be met before economic equality can be a reality.

## FRUITS OF RECENT ECONOMIC PROGRESS

After 8 years of excessive unemployment for the Nation as a whole, the economy recovered general prosperity in 1965. Since then the national unemployment rate has been at 4 percent or less. Negro unemployment rates moved parallel to the national rates, though at twice the level. While national unemployment fell from 6.7 percent in 1961 to 3.8 percent in the first 7 seven months of this year, the Negro unemployment rate fell from 12.5 percent to 7.3 percent.

The unemployment rates of particular categories of Negro workers also moved parallel to the corresponding categories of all workers. The unemployment rate for adult Negro men fell from 11.7 percent to 4.6 percent paralleling the national decline of 5.7 percent to 2.3 percent. Only the rate for teenagers does not parallel the white experience. It hardly fell in the 6-year interval and remains close to 25 percent, while the white teenage rate did fall from 16 to about 10 percent. The

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NOTE.—An earlier draft of this paper was read at the Economic Development and Employment Session, 1966 National Conference of the National Urban League, Inc., Philadelphia, Pa.

<sup>1</sup> National Industrial Conference Board, *Company Experience With Negro Employment*, Studies in Personnel Policy No. 201, New York, 1966, 2 volumes.

reason for this disparity has not yet been fully identified. The great increase in numbers is certainly one factor. In June of this year, almost 2 million more teenagers were working than 4 years earlier, including an extra 211,000 Negro teenagers. Also the continued heavy migration of Negroes from rural to urban areas converts the disguised unemployment of low productivity agricultural labor into the open unemployment of the city; and young Negro workers seem to suffer most from this condition.

The structuralist theories which maintained that general prosperity would do little good for many categories of workers because they were unfit to hold jobs in the rapidly advancing technology, can now be dismissed, at least in their extreme forms. Every category of unemployment, except Negro teenagers, has responded dramatically to prosperity and will continue to do so. But with that intellectual battle over and the general slack in the economy virtually eliminated it becomes even more urgent to look closely at the remaining unemployment and the barriers to full economic equality.

### FULL ECONOMIC EQUALITY

The ultimate economic goal for Negroes is full equality. From the point of view of employment I interpret this to mean that Negro workers are represented close to proportionately in the major occupations and professions. Of course, it does not require that Negroes represent exactly the same percentage in every type of profession and every skill; no such uniformity is found among other groups in American society, and differences will inevitably develop because of the uneven geographic distribution of the Negro labor force and different degrees of interest in various kinds of work. But in terms of broadly defined occupational categories, the sort by which our national employment statistics are organized, a reasonable uniformity is a condition of full equality.

This is a very ambitious goal, and one which will surely not be reached in one generation. But it can provide a useful target and a measure of the gap between Negro aspiration and achievement, of the task remaining to be done.

Let me therefore present a statistical exercise which reveals these targets for Negro economic equality.<sup>2</sup>

Table 1 shows the present situation. The immense overrepresentation of Negroes in the unskilled and service categories is of course well known. Although Negroes constituted only 10.7 percent of total employment in the first half of 1967, they are 25.4 percent of all service workers, 48.1 percent of all private household workers and 25.9 percent of all laborers. On the other hand they are dramatically underrepresented in the more attractive occupations. They are only 6.1 percent of all professional and technical workers, 2.8 percent of managers and

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<sup>2</sup> I use Negro and nonwhite interchangeably in this discussion. The figures are for all nonwhites; Negroes are over four-fifths of all nonwhites, and the figures are representative for them.

proprietors, 3.0 percent of all salespeople, 7.1 percent of all clerical workers, and 6.3 percent of all skilled craftsmen.

TABLE 1.—Nonwhite employment situation in 1967

Occupation group	Number employed (thousands)	Percent of nonwhite employment	Nonwhite employment as percent of total employment in the occupation group
All nonwhite employed persons.....	7,866	100.0	10.7
White-collar workers.....	1,793	22.8	5.3
Professional and technical workers.....	598	7.6	6.1
Managers, officials, and proprietors.....	204	2.6	2.8
Clerical.....	865	11.0	7.1
Sales.....	134	1.7	3.0
Blue-collar workers.....	3,319	42.2	12.4
Craftsmen and foremen.....	606	7.7	6.3
Operatives.....	1,841	23.4	13.4
Laborers, excluding farm and mine.....	873	11.1	25.9
Service workers.....	2,360	30.0	25.4
Private household.....	881	11.2	48.1
Other.....	1,479	18.8	19.6
Farm workers.....	401	5.1	11.9
Farmers and farm managers.....	110	1.4	5.8
Laborers and foremen.....	291	3.7	19.8

Source: Average of monthly figures, January-June 1967, from U.S. Department of Labor, *Employment and Earnings*, table A-17.

While these figures are a disturbing measure of the extent of economic inequality, they are a considerable improvement over just 9 years ago. Comparing 1967 with 1958:

Nonwhite professional and technical workers are up from 3.8 to 6.1 percent;

Clerical workers from 4.3 to 7.1 percent;

Salespeople from 2.1 to 3.0 percent;

Craftsmen from 4.5 to 6.3 percent.

Suppose that the recent rate of progress of Negro workers continues for another generation to 1985. The Department of Labor has made projections to 1975<sup>3</sup> and I have extrapolated these figures forward another decade. (See table 2.)

By 1985, when Negro employment will rise to 12 percent of the total because of greater nonwhite population growth, Negroes will have—

10.6 percent of all professional and technical jobs;

8.4 percent of all clerical jobs;

6.0 percent of all sales jobs, and

8.8 percent of all skilled craftsmen jobs.

<sup>3</sup> Joe L. Russell "Changing Patterns in Employment of Nonwhite Workers," *Monthly Labor Review*, May 1966, pp. 503-509.

TABLE 2.—Nonwhite employment situation in 1985: Projections and goals

Occupation group	Continued present progress <sup>1</sup>			Full economic equality		
	Nonwhite employed persons		Non-white as percent of total	Nonwhite employed persons		Non-white as percent of total
	Number (thousands)	Percent		Number (thousands)	Percent	
All employed persons.....	12,590	100.0	12.0	12,630	100.0	12
White-collar workers.....	4,190	33.3	7.8	6,420	50.0	12
Professional and technical workers...	1,850	14.7	10.6	2,100	16.7	12
Manager, officials, and proprietors....	420	3.3	3.8	1,330	10.5	12
Clerical.....	1,510	12.0	8.4	2,160	17.1	12
Sales.....	410	3.3	6.0	830	6.5	12
Blue-collar workers.....	4,340	34.5	13.0	4,000	31.7	12
Craftsmen and foremen.....	1,200	9.5	8.8	1,630	12.9	12
Operatives.....	2,290	18.2	14.1	1,940	15.4	12
Laborers, excluding farm and mine...	850	6.8	24.0	430	3.4	12
Service workers.....	3,710	29.5	23.7	1,880	14.9	12
Private household.....	980	7.8	38.4	310	2.4	12
Other.....	2,730	21.7	20.8	1,570	12.5	12
Farm workers.....	350	2.8	12.8	330	2.6	12
Farmers and farm managers.....	40	.3	.7	160	1.3	12
Laborers and foremen.....	310	2.4	24.6	170	1.3	12

<sup>1</sup> Assumes that the nonwhite proportion of employment in each group will increase or decrease at the same rate as in the Labor Department projection for 1985-75. (See Joe L. Russell, "Changing Patterns in Employment of Nonwhite Workers," *Monthly Labor Review*, May 1966.)

But Negroes will still be—

24.0 percent of all laborers;

38.4 percent of all private household workers; and

24.6 percent of all farm laborers.

For other attractive job categories, the present rate of progress would leave Negroes very far from equality. By 1985, only 3.8 percent of all managers and proprietors would be nonwhite. That is just 420,000 people, compared to an equality target of 1.33 million.

There would be—

410,000 sales people compared to a target of 830,000;

1.20 million craftsmen compared to a target of 1.63 million; and

1.51 million clerical workers, compared to a target of 2.16 million.

At the other end of the scale, there would still be—

850,000 laborers, instead of a target of 430,000, and

3.7 million service workers, compared to a target of 1.88 million.

These figures are very crude, of course, and categories are extremely broad. Within each category, Negroes, on the average, have worse jobs at lower rates of pay. But even at this very gross level, many of the essential problems emerge clearly.

#### HUMAN INVESTMENT FOR ECONOMIC EQUALITY

Can the recent rate of progress be sustained for the next 20 years? And can it be accelerated to move Negroes more quickly toward economic equality? Doors are opening. But is the rate of investment in human resources sufficient to equip Negroes for the better jobs?

Again, a few gross figures outline the problem and show what remains to be done.

A college degree is necessary for the typical professional and technical job. (See table 3.) A high school diploma is a prerequisite for the typical managerial, clerical and sales job, and for skilled craftsmen. By 1985, semiskilled jobs and service jobs will also be held typically by high school graduates.

TABLE 3.—Median education of occupation groups <sup>1</sup>

Occupation	1966		1985, <sup>2</sup> total
	White	Nonwhite	
<b>White-collar workers:</b>			
Professional and technical workers.....	16.3	16.5	16.3
Managers, officials, and proprietors.....	12.7	12.4	12.6
Clerical.....	12.5	12.6	12.5
Sales.....	12.5	12.2	12.5
<b>Blue-collar workers:</b>			
Craftsmen and foremen.....	11.9	10.5	12.5
Operatives.....	10.8	10.1	12.0
Laborers, excluding farm and mine.....	10.0	8.6	11.0
<b>Service worker:</b>			
Private household.....	9.3	8.6	10.0
Other.....	11.7	10.6	12.0
<b>Farmworkers:</b>			
Farmers and farm managers.....	8.9	<sup>3</sup> 5.9	8.8
Laborers and foremen.....	9.1	5.8	8.4

<sup>1</sup> Source: *Manpower Report of the President*, March 1967, p. 241.

<sup>2</sup> 1985 figures are very conservative projections of the trends of the last 18 years.

<sup>3</sup> Figure for 1965.

To maintain their present rate of progress, Negroes will require increasing amounts of education. By 1985, 68 percent of all Negroes should be high school graduates; 14.7 percent should be college graduates. (See table 4.) To go beyond the present rate of progress and to achieve full economic equality, 74.9 percent of all Negroes should be high school graduates, 16.7 percent college graduates. These figures assume that every Negro must have the median education for his job. Some will be able to hold the better jobs without the appropriate diploma. But the education of whites is increasing rapidly as well and will reach the standards underlying the above figures. The competition will be keen.

TABLE 4.—Required education of nonwhites for the jobs of 1985

[In percent]

	Needed in 1985 for continuing present rate of progress	Needed in 1985 for full economic equality
College completed.....	14.7	16.7
High school completed.....	68.0	74.9
Less than 4 years of high school.....	17.3	8.4

The educational attainments of our Negro population are rising rapidly. (See table 5.) In 1952, only 17 percent of nonwhites had a complete high school education. By 1966, 38 percent of all Negro workers had completed high school, and slightly more than half of new Negro workers. The number of college graduates is also rising rapidly. Among whites, the gains are less dramatic, so there has been some Negro catching up.

However, when the current performance is compared to the education that would properly equip Negroes for the job world of 1985, the gap is very great indeed. To continue the present rate of progress (following the Department of Labor projections), there should be 1.85 million Negro college graduates by 1985. In March 1966 there were only 460,000. The current rate of Negro college attendance will not bring us close to the goal. About 15 percent go to college, less than half of the rate for whites. A very major stepup in college attendance and completion is needed if Negroes are to continue their good recent rate of progress in professional and technical jobs. Some of the present progress is based on the elimination of Negro underemployment, of upgrading educated Negroes into the kinds of jobs for which they were educated. This source of progress will gradually disappear. Therefore, to maintain the present rate of progress in professional and technical jobs, the proportion of Negro college graduates must rise even more rapidly in the future than in the recent past.

TABLE 5.—*Educational attainment of civilian labor force 18 years old and over—Percent of civilian labor force completing specified years of school, by color, selected years, 1952-66*<sup>1</sup>

Years of school completed at various dates	Total	White	Nonwhite
<b>Elementary (8 years or less):</b>			
March 1966 .....	22.2	20.2	37.9
March 1959 .....	30.5	27.7	53.8
October 1952 .....	37.9	34.9	66.6
<b>High school (4 or more years):</b>			
March 1966 .....	58.9	61.5	37.8
March 1959 .....	49.8	52.6	25.0
October 1952 .....	43.3	46.1	17.4
<b>College (4 years or more):</b>			
March 1966 .....	11.8	12.5	5.8
March 1959 .....	9.7	10.3	4.0
October 1952 .....	8.0	8.6	2.6

<sup>1</sup> Source: Harvey R. Hamel, "Educational Attainment of Workers," *Monthly Labor Review*, June 1967, p. 46.

NOTE.—These figures exclude persons completing 1 to 3 years of high school.

From a social point of view, the rate of high school completion is more worrisome. Even today, almost half of all young Negroes enter the job market without a high school diploma. By 1985 these youngsters will be about 40 years old, with half their working life still ahead of them. Mighty few of these individuals are on any path toward equality. The economy will adapt to the labor supply, and if an abundant supply of uneducated Negroes is still available by 1985, there will be unskilled, badly paid, low productivity jobs for many of them. Their unemployment will be more frequent and of longer duration. This tragically low rate of completion of high school is the greatest single obstacle on the road to economic equality.

In the past, the return on education was sharply lower for Negroes than for whites, because of discrimination and other factors. For example, in 1949, a white high school graduate in the South could expect to earn a lifetime income of \$6,240 greater than a dropout.<sup>4</sup> A nonwhite could expect only \$1,820. With a lower return, greater pressure to begin to work to contribute to low family income, and cultural depriva-

<sup>4</sup> Burton Weisbrod, "Preventing High School Dropouts," in *Measuring Benefits of Government Investments*, R. Dorfman ed., the Brookings Institution, 1965, p. 126.



tion, it was no wonder that Negro youths generally quit school. But the situation is changing. Job discrimination is diminishing, and the value of a high school education for a Negro is rising rapidly in our advancing technology.

### POLICY TO PROMOTE ECONOMIC EQUALITY

As an economist it would be rash for me to recommend to you the specific policy measures that follow from my analysis. The proper goals of policy for economic equality are clear: the number of young Negroes completing high school and completing college must be increased very substantially. The quality of the education they receive must be made equal to the quality of education of whites. And more specific vocational skills must be made available, whether through apprenticeship programs, vocational schools, manpower training policies or on-the-job experience. These programs of human investment will require immense resources from all levels of government from employers, and not least from the Negro families themselves. In addition, the gates of opportunity must be opened all the way. Both companies and unions must intensify their recruitment of Negro job candidates. In the case of the white-collar job ladder, equality in education and employer cooperation are the key elements. But in the case of the equally important blue-collar job ladder, it is the union movement which must carry much of the responsibility. Given the large number of Negro blue-collar workers, this is a particularly important route of Negro economic advancement.

Without attempting to develop specifics, let me touch on just a few areas. What steps could be taken to substantially increase the percentage of Negroes who complete high school? The Neighborhood Youth Corps encourages hundreds of thousands of youngsters to stay in school and this key program must continue to be strengthened. We have learned from experimental studies<sup>9</sup> that school dropouts are hard to prevent in the last year or two. The act of quitting is only the final step in the failure of the school systems to devise a meaningful and valuable curriculum for the student. In the Elementary and Secondary Education Act of 1965, the Federal Government has provided the funds for programs which can reach the students earlier. The resources it makes available to the schools which educate the children of the poor—including the massive aid to the southern schools which still educate half of all Negro children, as well as its aid to urban slum schools—should, if effectively employed, cut the dropout rate. We must assure that these resources are really used effectively, and do not merely become a substitute for local effort or simply vanish in higher costs. When Federal budget resources again become available in greater abundance, expansion of this act, particularly of its title I, should have top priority.

Special grants based on performance should be set up under title I to reward those school districts which demonstrate by objectively measurable criteria that they are doing an outstanding job in helping the children of the poor. Such criteria might include the increase in the percentage of poor children who complete high school; their improve-

<sup>9</sup> See Weisbrod, *ibid.*

ment in achievement tests; and the vigor and success of the school system in achieving meaningful integration for racial balance.

The American system of higher education must also become more responsive to the needs of our Negro population and its goal of economic equality. Although there is very little discrimination in the admission of Negroes in our outstanding universities and colleges today, there are still mighty few Negroes in evidence on many of our finest campuses. The channels of communication are weak. Very few Negroes apply. So long as a large part of all Negroes attend inferior schools, they cannot hold their own in the objective college entrance examinations which influence college admission. And of course, lower Negro incomes mean that fewer Negro families can afford the heavy expense of higher education. The upward bound program of the Office of Economic Opportunity is off to a good start, and serves as a catalyst to stimulate local programs to encourage youngsters to go on college. Colleges and universities must step up their active search for Negro applicants.

Much of the responsibility for sufficient education inevitably falls on the families of the Negro children. After all, it was through education that other minorities escaped mass poverty. Parental encouragement and help are of the essence in making children develop their potential. To be sure, one must be careful not to draw unwarranted analogies between the history of other minorities and the present plight of Negroes. But there is one analogy which is inescapable; only a massive step-up of human investment in education will make Negro economic equality possible.

# TOWARD A FUNDAMENTAL PROGRAM FOR THE TRAINING, EMPLOYMENT AND ECONOMIC EQUALITY OF THE AMERICAN INDIAN

BY HERBERT E. STRINER\*

## THE CURRENT SITUATION

On May 16, 1967, Secretary of the Interior, Stewart L. Udall, acting for the administration, submitted to Congress the Indian Resources Development Act of 1967. The main purpose of this bill is to provide Indians with managerial, credit, and corporate tools to enable them to participate more fully in the Nation's social, economic, educational, and political life; and to permit them to exercise greater initiative and self-determination. Title I of the act pertains to the provision of an Indian development loan authority; title II authorizes, through the Secretary of the Interior, somewhat broader incorporation charter provisions than have existed under earlier legislation; title III provides new authorities and clarifies existing authorities under which Indian tribes manage property and conduct business transactions. This title also provides the Secretary of the Interior with additional authority for dealing with land acquisition and land fractionation on a more rational basis; and, finally, title IV deals with a miscellany of items of which one has to do with an increase of \$10 million for adult vocational training. This item, section 401, is the *sole* provision in this so-called most important legislation proposed for American Indians since the Wheeler-Howard Act of 1934<sup>1</sup> which has to do in any way with training and employment. This legislative effort to provide new, more meaningful options to American Indians reflects a tragic misconception of the needs of the Indian population and the means which must be made available to Indians if they choose to move away from their traditional cultures and toward that of the non-Indian society.

To begin with, the bill assumes a level of financial sophistication which is nonexistent in many tribes and provides little or no means of obtaining access to such resources. And although an appropriation for a \$500 million loan fund is sought, not more than \$100 million is available during the first 5 years, and no loan of more than \$60,000 can be

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AUTHOR'S NOTE. A number of individuals have contributed importantly to this paper. Without the help of the following, it could not have been written; my gratitude to Prof. Charles Abrams, Prof. Everett Hagen, Dr. Bruce Jessup, Mr. William W. Keeler, Mr. Richard Lasko, Dr. Walsh McDermott, Dr. Robert Roessel, Mr. Richard Shifter, Dr. Milton Stern, Prof. Sol Tax, Mr. Richard Buffum, Mr. Donald Lindholm, Mr. David Tilson

<sup>1</sup> Secretary Udall's statement, p. 1, Press Release of May 16, 1967, Office of the Secretary, U.S. Department of the Interior, Washington, D.C.

made without the approval of the Secretary of the Interior. But these objections to this new major legislation are minor ones. The core of the problem is that this new legislation ignores completely the fact that a solution to the Indian problem calls for efforts in education, training, housing, welfare, and health at a level of funding never properly understood. To apply the remedies of titles I-IV of the Indian Resources Development Act of 1967 to the current problem of our Indian population is analogous to developing a repair manual for a 1967 Rolls Royce before we have successfully built a 1928 model A Ford.

#### THE PROBLEMS OF TRAINING AND EMPLOYMENT

To deal with the problems of training and employment of American Indians is, to begin with, not a problem of huge budgets, at least relative to the size of most Federal programs we have grown used to. The entire Indian population of this Nation is about 600,000. But only approximately 400,000 are within the jurisdiction of the Federal Government, the remainder living away from the reservations and in various degrees of assimilation. But even amongst this latter group an unknown, though probably large, number need continuing help in adjusting to the non-Indian society. Thus, we are talking about a minority minority, making up about 0.002 percent of our total population. Viewed in quantitative terms, the training and employment problem for this relatively small group is deceptively small. What makes the problem formidable is not its size, but its nature. For it is made up of generous portions of just about every major social problem of the day: self-sustaining rural poverty, slum diseases, chronic unemployment of almost 50 percent of the adult male population, race prejudice, an imperfectly adopted school system and every little available socioeconomic data on which to build programs to alleviate or remedy these situations. The major Federal agency entrusted with the task of dealing with Indian problems itself has no integral research program.

Further, to deal with Indian training and employment problems, there must be a concerted effort to understand the different cultures of the Indian population. In a way, these cultures present at any moment in time a spectrum of civilizations which encompass a spread of several thousands of years. Some tribal groups are not far from the economies and cultures which we imagine ceased to exist well before the days of ancient Greece. And as far as group differences are concerned, there are 784 tribes, bands, groups, or communities which the Bureau of Indian Affairs has to deal with. Many are totally different from each other. The Navajo and the Crow share few of the same problems having to do with training and employment. The Cree and the Cherokee are also hardly amenable to the same type of economic development assistance.

This is not to say, however, that a training and employment program cannot be developed which is at once so general so that it can be designed within the usual definitional framework of what we call a program, and yet be so tailored that it has operational significance for diverse tribes with different cultures, geographic settings and stages of economic development. To begin with, there must be an understanding of and sympathy for a crucial problem which the Indian has regarding the white man—the problem of confidence. With-

out this, a Federal effort to move *with* the Indian, *not lead him*, in a direction of economic development and the training and employment which is implicit, will be an exercise in frustration.

Few Americans are unaware of the history of broken treaties with Indian tribes, oppressive military wars against them and rapacious land and water dealings by means of which the Indians were divested of much of their property. But this treatment, while ancient history to the white man, is not only fresh in the memories of the Indians but reinforced by an action taken in 1953 by the Federal Government.

#### 1953—A YEAR OF RETROGRESSION

By 1953, under the Indian Reorganization Act of 1934, a good deal of progress had been made with regard to new programs stimulated by the Federal interest in changing the backward nature of its past relations with the Indians. However, with the passage of House Concurrent Resolution 108, 83d Congress, August 1, 1953, this progress was brought to a halt. House Concurrent Resolution 108 declared it to be the policy of the Government to withdraw Federal responsibility and services for Indians at the earliest possible date. Under this termination policy Federal responsibility and services for several tribes was ended without their consent during the mid-1950's.

This ill-advised action resulted in near economic chaos for the once economically stable Menominees of Wisconsin. Other Indians were also undesirably affected by this resolution. Under this policy of the early 1950's the relocation of thousands of Indians from reservations to urban areas where employment was alleged to be more readily available was encouraged. This experiment proved to be an expensive exercise in human misery for the Indians and wasted dollars for the Government. Far too many of the Indians so relocated were totally unprepared through education or vocational training to secure steady employment to support a decent standard of living in urban centers. Many of these Indians wound up in the slums or on skid row. Many others returned to the reservations with a further attitude of bitterness toward non-Indians as the result of this resolution. The program did not begin to be brought to a halt until September 18, 1958, when Secretary of the Interior Fred A. Seaton indicated that there should be no termination without the consent of the Indian tribes affected and every effort should be focused on health, education, and development of economic opportunities. Nonetheless, a great deal of damage had been done affecting Indian relations with the Federal Government and Indian suspicion of the real intent of the white man.

#### A CHANGE OF DIRECTION

As a result of this policy of the mid-1950's and the much longer history of dishonest Federal relationships with the Indians, any major effort to take steps to improve Indian training and employment programs must first be built upon several fundamental shifts in the Federal Government's view of the Indian in the American society. To begin with, there must first be a conclusive statement on the part of the U.S. Government recognizing that, as the first Americans, the Indians alone among its people are under no social pressure to be culturally assimilated unless they choose to be. The Alaskan natives

must also, of course, be included. In short, the United States must concede that the Indians and Alaskan natives are indeed a special case. This, of course, has historic precedent in that *only* the Indians as an ethnic group are singled out for special treatment in the Constitution of the United States. Second, there must be a complete and formal disavowal of termination as a governmental policy or goal. If termination ever is to come for a tribe, it should come only after a long, slow process *wholly initiated and carried forward* by the tribe itself. It must be stressed in particular that neither tribal progress in socioeconomic development nor an award by the Indian Claims Commission should be used as a weapon to induce a tribe to apply for termination. Third, Indian lands (i.e., the Indian estates) must be viewed as being inviolate. A similar statement should be made about the trust status of allotted lands. In the latter only, there also has to be a statement of principles governing the rules of sale that must be drafted so as to fully protect tribal as well as individual interests. This would apparently be in contradiction with the hypothecation provisions contemplated under the new Indian Resources Development Act of 1967. And finally, there must be a policy that substantial Indian participation is involved or must be involved at both the national and local levels when any new proposals or programs are contemplated concerning improvement of Indian education, training, and employment or the economic development of Indian tribes.

It is difficult for any non-Indian who has not been involved in some measure with the problems of the American Indian to understand the crucial nature of the termination issue in any discussions which take place concerning economic development and employment of Indians. The Indian, for the most part, has a psychological and cultural relationship with the land which surpasses that usually understood by the non-Indian. There is not only a religious significance but there is also implicitly an economic security significance of considerable concern to the Indian when his land or the tribal lands are referred to. Because of the policy of termination between 1953 and 1958, no programs can be developed which in any way indicate to the Indian that they might really be utilized finally to separate him from his land. To a considerable extent the termination issue poisons every aspect of Indian affairs today. The issue of termination is a major psychological barrier to Indian socioeconomic development. Only after there has been a *formal* disavowal of the termination concept will it be possible for individual tribes to start considering whether they would like to assume responsibility for individual socioeconomic programs such as those considered in the Indian Resources Development Act of 1967.

A second policy statement has to do with the fact that the Government bears and must continue to bear a unique relationship to the Indian problem having to do with assimilation. The concepts of termination and assimilation are closely interrelated and each has had some basis in premises that have dominated U.S. non-Indian attitudes for more than a century.

Assimilation as well as termination has operated from the beginning when Indians were first encountered by white settlers. The Indian, not having had the "benefits" of white civilization, was regarded as a childlike creature. Implicit in this assumption is the idea that when properly indoctrinated with civilization the child grows up and, logically, there will be some point in time when his status as an Indian,

that is as a child, can be terminated. Also, there was the premise or assumption that grew up in the latter half of the 19th century that the Indian is essentially no different from the non-English-speaking, uneducated immigrant. Like the immigrant, he was seen as having a social obligation to go through the "melting pot" so that he could be culturally assimilated into the dominant U.S. society. It was regarded as the role of the Government to help the Indian to go through the "melting pot" as rapidly as possible and once through it his status as an Indian could be terminated.

Although different, these two premises are so obviously intertwined that in effect they constitute a single idea—an idea which I believe to be patently false. The right of Indian separateness was clearly recognized in the Constitution of the United States. Indian tribes were recognized as nations enjoying a treaty relationship with the U.S. Government. It is noteworthy moreover that the Federal courts consistently treated individual Indians as persons who need special protection and services and the tribes as independent nations.

In addition to the legal right of some form of separateness there is the question of the social obligation to be assimilated by the dominant U.S. society. During the period of large-scale immigration to the United States, there was widespread acceptance of the idea that the immigrant was under a social obligation to be Americanized. Although what was involved may not have been defined in precise terms, there was a broad consensus endorsed by the immigrants themselves that at least in the ordinary daily business of life "the American way" of doing things was to be the prevailing standard. This broad and generally useful concept of the "melting pot" became so much a part of our folkways and was applicable to so many people, that it is understandable that the small group of U.S. Indians was not recognized as constituting an exception. But the Indians and Alaskans *are* an exception because they did not choose to immigrate to what is now the United States; they had settled here first. By contrast, our European, Asian, and South American immigrants in making their choice to come voluntarily to the United States also chose to become a part of the predominant U.S. culture. If the African Negro immigrants, who did not choose to come here, had succeeded in maintaining their culture, they, too, on emancipation, would presumably have constituted a second exception. As things worked out, however, their tribal culture was largely lost and they, too, chose to become a part of the general U.S. culture with its strong Anglo-European traditions.

But the U.S. Indian has no old country. His old country is here. And it was here that he was confronted by the onrushing flood of a rapidly evolving technologically based human migration that was successful in creating its own stable society. In any social system the effort necessary to preserve the old ways is frequently heavily reinforced when they seem under attack from without. Thus, today, we can only speculate whether if the Indian had not been pressured so unthinkingly to give up his culture, he might not have actually done so in far greater numbers as a matter of choice. Without question, however, the greatest tragedy in terms of Indian socioeconomic development was that the question of whether to enter U.S. society or not was apparently regarded both by the Indian and the Government alike, as an all-or-nothing proposition—a middle way whereby

the Indian could choose to participate on a selective basis in various nonreservation activities never gained much consideration.

A major influence in perpetuating the current frozen situation is the idea that the Indian has an obligation to be culturally assimilated, because this in turn, perpetuates the all-or-nothing idea that he must give up being an Indian if he is to have a chance to earn a share of the benefits of U.S. society. I believe that the logical action to get both parties out of this frozen situation is to separate the choice of job career and training from the choice of the extent to which the Indian wishes to adhere to his culture. Thus, it is important for the U.S. Government to specifically take the position that there is this separateness of issue and that the Indian will remain as an individual who is entitled to a uniquely preferential status in the future with regard to relationships between the Indian population and the non-Indian population and Government of the United States. Job development, education, and training must be dealt with, and can only be dealt with meaningfully, apart from this issue.

#### ECONOMIC DEVELOPMENT

Almost half the Indian working-age population is chronically unemployed. Approximately half of the Indian families have incomes of less than \$2,000 a year and about 75 percent of all Indian families have incomes of less than \$3,000 a year. For no other group in our society do the economic measures give such a stark revelation of poverty. Ironically, even these indexes provide only crude measurements because the Indian has even been largely bypassed by our insatiable data-gathering activities.

In the past it has been assumed that the only solution to this problem was to persuade Indians to move to the cities and strenuous efforts were made to induce them to do so. Programs to assist Indians who wish to seek off-reservation employment should be continued and indeed strengthened. As a matter of fact, the Indians who wish to leave the reservation must be provided with an increasing supply of supportive services if they are to be able to make their way in the non-Indian society. However, it is hardly realistic to rely primarily on relocation as a means of alleviating the plight of the Indian with regard to training and employment. This route ultimately may be the one which young Indians will choose, but this choice will only be a free one when they have been educationally fitted for a wide variety of employment possibilities.

At the present time approximately 50,000 reservation Indians are unemployed and in 10 years population growth will require at least 10,000 more jobs. Such jobs can come primarily from three sources: (1) private non-Indian manufacturing plants that locate on or near reservations, (2) creation of Indian owned and operated businesses on reservations, and (3) housing and other public works construction programs.

The first step in any program concerned with training and employment of Indians must be that of the development of a far more effective educational system. This educational system must be one which is viewed as starting in the kindergarten years and continuing on through a college-training program.



## EDUCATION

The nature of the problem: Everyone concerned with Indian education agrees that substantial improvements are necessary. The results speak for themselves: Indian children compare very unfavorably to the national averages in dropout rates and in achievement levels at all grades. Too many Indian children drop out with inadequate education to make them employable and too few Indian children realize their educational potential.

Of the approximately 150,000 Indian children in elementary and high school in the States in which the Bureau of Indian Affairs (BIA) operates schools, approximately one-third attend 254 Bureau schools, the other children go mainly to public schools, although approximately 8,000 attend private—mainly church-sponsored schools. Two-thirds of all children in Bureau schools attend 81 boarding schools, some of which enroll over 1,000 children. Nearly 60 percent of the day schools for elementary school children have enrollments of fewer than 100 pupils. In addition to the children in Bureau-operated boarding schools, approximately 4,000 elementary and secondary school children are housed in 18 border-town dormitories where they attend public schools off the reservation. If present trends on Indian reservations continue, the number of Indian children in Bureau schools and border-town dormitories together will increase from about 53,000 in 1966 to 72,000 in 1975.

Indian children attend school in an intercultural setting with the majority of their teachers and administrators being non-Indians. The curriculum, the books and teaching materials, and the underlying educational objectives are basically designed to prepare children for life in non-Indian, middle-class American society. Since Indian children on the reservation come from a very different society and most do not speak English when they enter school, their value system is very different from that implicit in the educational experience to which they are exposed. The schools do not view their task as that of helping Indian children to adjust to changes within their own culture, but to help them adjust to a culture alien to them. In doing so, they must (1) help the children speak, read, and write English, a language which is foreign to most of them; (2) expose them to experiences completely new to them (most Navajo children have never seen a city, or a boat, or an elevator before going to school, and many have not used silverware or even slept in a bed; most Eskimo children have not seen a horse or a cow before beginning school and many have never seen a tree); (3) help them to develop salable skills; (4) expose them to cultural values very different from their own (for example, a competitive role in which one seeks status as an individual rather than a cooperative one in which the individual subjugates his interests to those of the group) and hope they will accept them.

This is exceedingly difficult to do well. There is evidence that the emotional pressure generated by this intercultural setting of Indian schools contributes to serious mental health problems, high dropout rates and unsatisfactory achievement levels. Skill training and employability in adult years is seriously affected by these early educational deficiencies.

These difficulties are compounded by the minimal involvement of Indian parents in the formal education of their children. In most situa-

tions (there are some notable exceptions<sup>2</sup>) Indian parents are not encouraged to participate in the school experience and they do not really understand what is expected of their children in school and what is expected of them as parents other than to see that their children attend school. Not surprisingly, most Indian parents have ambivalent attitudes toward the schools their children attend.

Clearly, some way of increasing parental involvement is essential. The BIA schools in general tend to enroll the Indian children who (1) do not have access to a public school because of isolation, (2) are so retarded educationally that they cannot benefit from an ordinary public school program, (3) come from broken or disorganized homes and are so emotionally disturbed that they require boarding care, (4) are dropouts from public schools, or (5) need vocational education not available in their own communities. In general, the Indian children attending BIA schools are more disadvantaged than those attending public schools.

Even so, public schools are not notably more effective in educating Indian children than the Bureau schools and, in many places, are considerably less effective. The dropout rates are very high and achievement levels are well below national averages. Moreover, the strong factor of racial prejudice is present in many areas where substantial Indian populations exist. These attitudes make for a very inhospitable climate for educating Indian children in public schools. The assumption that integrated education is invariably better than segregated education must be qualified by a careful assessment of local circumstances in Indian country before it can be accepted as valid. It would not appear to be valid under present circumstances in many areas.

In addition to direct operation of the Bureau of Indian Affairs schools, the Federal Government contributes to the cost of educating Indian children in the public schools under four laws:

A. The Johnson-O'Malley Act, which was passed in 1934 authorizes the BIA to make grants to public schools which educate Indian children in areas where substantial numbers of Indian children are situated. In some cases, the BIA contracts with States (e.g., Alaska) to cover the total cost of educating Indian children. The public schools which received Johnson-O'Malley grants in 1966 enrolled over 56,000 Indian students.

B. Under Public Laws 874 and 815, Indian children are counted in the Federal impact formula for awards to States for construction and operation of public schools.

C. Under Public Law 89-10 (the Elementary and Secondary Education Act of 1965), projects for improving the education of disadvantaged children are available to schools operated by the States in Indian country and, under a new amendment to title I of Public Law 89-10, some \$5 million had been available in fiscal year 1967 to the BIA for title I projects in BIA schools. These programs are administered by the U.S. Office of Education.

Early childhood education was initiated recently by the Office of Economic Opportunity which funded a number of Headstart pro-

<sup>2</sup> The Rough Rock Demonstration School at Chinle, Ariz., has demonstrated conclusively that this pattern can be changed. Under the able leadership of Dr. Robert Roessel, Navajo families have been brought directly into the designing and running of this residential school. Funded by the Bureau of Indian Affairs and the Office of Economic Opportunities, it is a model of Indian education.

grams on Indian reservations. The BIA school program starts children at age 6. It has long sought funds for kindergartens, but without success.

The expenditures of the Bureau of Indian Affairs in fiscal year 1966 for construction and operation of elementary and secondary schools, as well as Johnson-O'Malley grants to States, plus the grants made by the Office of Economic Opportunity for pre-school, elementary, secondary, and adult education projects totaled approximately \$155 million in 1966. These funds do not include amounts paid to States and local school districts with Indian enrollment under Public Law 815, 874, and 89-10. It is difficult to obtain data concerning these programs. Indeed, one is overwhelmed by the inadequacy of data on Indian education (and on Indian problems in general) and the inadequate effort being directed to correct this deficiency. The complexity of the problems associated with Indian education merit substantial research and development efforts and strong determination to adopt promising innovations as they appear. The assumptions underlying the conventional approach to Indian education evidently have not been valid and a systematic search for more realistic approaches is clearly in order.

#### CONCLUSIONS ON EDUCATION AS A PRECONDITION FOR TRAINING

A. Improving the effectiveness of the education provided to Indian children must remain a high priority objective of the Federal Government. Although direct Federal action can most readily take place in the federally-operated schools, special efforts should be directed to encourage and assist the public schools in improving the quality of their education programs for Indian children. But rather than continue to press for the transfer of Indian children to the public schools, irrespective of whether they are willing and able to provide the special attention needed by Indian children, the federally-operated Indian schools should be made into models of excellence for the education of disadvantaged children. At the same time, the U.S. Office of Education should make much greater use of its resources and contacts to bring about improvement in Indian education in the public schools.

B. The costs of improving the education of Indian children are bound to be high. Indeed, a really effective program probably will require doubling or even trebling the per pupil costs. But the high educational costs are bound to be more than offset by the reduction in unemployment rates and the increases in personal incomes for Indians that are certain to follow in the wake of improved education.

C. It is essential to involve Indian parents in the education of their children and to give them an important voice—both at the national and local levels—in setting policy for those schools in which Indian children predominate. Indeed, wherever Indian tribes express the desire, and evidence the capability to do so, they should be permitted to operate schools directly under contract. As indicated earlier in this paper, a model for this approach already exists at the Rough Rock Demonstration School at Chinle, Ariz.

D. A major research and development effort is badly needed. The lack of solid, factual data on Indian education must be remedied as quickly as possible. Without such information, any serious re-

search program will remain limited as a resource on which to build more effective operating programs.

E. The curriculum (and teaching materials) in both the federally-operated Indian schools and public schools in Indian country should include substantial information about Indian culture and history and factual material about *current* Indian life. This is important both for Indian and *non-Indian* children, if they are to acquire a balanced perspective both on the Indian heritage and on current circumstances.

### WHAT SHOULD BE DONE?

A. *An immediate goal should be to make the federally-operated schools into a model system.*—A plan should be prepared in consultation between the BIA and the National Advisory Board on Indian Education (the establishment of which is recommended below) and with the help of the best expert advice obtainable in the country. It should allow for phased implementation with some innovations being embodied rapidly, others over a period of years. The target should be full implementation in 5 to 7 years, and the program should be initiated in fiscal year 1968. The plan should pay special attention to—

1. *Steps needed to strengthen the teaching staff.*—The most important requirement is to raise salaries. BIA teachers salaries are not really competitive on the national level. Starting salaries are too low, and teachers in BIA schools do not get the whole summer off as do teachers in State-operated public schools. Much more attention must be paid to screening applicants whose qualifications and motivation fit the especially exacting requirements of teaching Indian children. And much more effort must be made to provide special training—in the culture, the psychology, and the special problems of Indian children—to teachers of Indian children. Competent university contractors probably should be developed to provide this type of training.

2. *Pupil-teacher ratios.*—The average pupil-teacher ratio in BIA schools now is about 29 to 1. There is very strong evidence that the maximum effective ratio for teaching disadvantaged children is 20 to 1. (Some educators feel that even this is too high—that the ratio should be no more than 15 to 1 for seriously disadvantaged children.) Obviously, a change of this magnitude will require several years to bring about and will approximately double operating costs per pupil, but it is an essential step.

3. *Teaching of English as a second language.*—The BIA has recently inaugurated experimentally the use of teaching techniques and materials for teaching English as a second language. This practice should be spread as rapidly as possible throughout the Indian school system.

4. *Early childhood education.*—Present policy is to start children in BIA schools at the age of 6. There is strong evidence that early childhood education—particularly for children with the language and cultural backgrounds Indian children have—is important. The plans should envisage early childhood education down to the age of 3.

5. *Improved curriculum, reading and teaching materials.*—Special efforts should be made to develop the materials needed to include Indian (and specific tribal) history and culture into the curriculum and to produce reading and teaching materials that reflect the cul-

tural backgrounds of the children. At the present time Indian children are taught to read in books that were developed for white, middle-class children. The world portrayed therein has no meaning for Indian children. Indian history and culture must be introduced early and should appear in appropriate places throughout the elementary and secondary programs so that the children emerge with a realistic grasp of—and pride in—their Indian heritage, as well as an understanding of the non-Indian American culture. Psychologists and educators are agreed that Indian children must acquire a positive image of themselves in the educational process and a realistic understanding of their environment if they are to be well adjusted, in good mental health, have a successful educational experience.

6. *Elimination of boarding schools.*—At the present time large numbers of Indian children—starting at age 6—are attending boarding schools which are sometimes long distances from their homes. Most educators and psychologists would agree that separating young children from their parents is not desirable. Solving this problem will prove to be extremely difficult, but given sufficient time, money—particularly for roads—and determination, it can be solved.

7. *Guidance, counseling, mental health.*—Trained guidance counselors and school psychologists are much too scarce in Indian schools. Indian children need extra attention, and probably at earlier ages, than is the case for most children if dropout rates are to be reduced, vocational options wisely selected, and emotional disturbances dealt with properly.

8. *Vocational education.*—At the present time, vocational training available to Indians is limited to two types: the post-high-school training offered, for example, at Haskell Institute in Lawrence, Kans., and adult vocational training offered to Indians between the ages of 18 and 35 in regular private vocational training schools. Vocational education should be strengthened considerably by developing it along two lines. First, it should tie in directly with the basic fundamental educational system. This type of fundamental education, however, must be considerably different from that which now exists in Bureau schools. Training in language and mathematical skills should relate directly to utilization in an actual commercial, industrial, or other type of business application. The vocational education program itself should be undertaken no sooner than the last 2 years of high school. At an earlier period, the child is not really able to absorb a sufficient amount of fundamental education along with enough of the skill training aspects so that he is well grounded in either. Unless the Indian child is to go on to a technical training program beyond the 12th grade, he must have a sufficient fundamental background in reading and mathematical concepts, and to dilute this in the 9th or 10th grade with vocational skill training would be most unfortunate. In addition, the vocational skill training the Indian gets in the 11th and 12th grades must be viewed only as preparatory for further on-the-job training which he will have after leaving high school. A second type of vocational training should be that which provides for technical training institutes at the 13th and 14th grade levels. Increasingly, in order to prepare for the new types of more technically oriented jobs in our society, the young person must have a background which is sufficiently deep in the fundamentals so that a 4-year education at high

school level should be viewed as a jumping off point for 2 years at a technical training institute or a junior college which is concerned primarily with a move into a job rather than a move into a regular liberal arts college system. The technical training institutes should be developed in close relationship with industries which the institute envisions itself as serving. This is important for several reasons. To begin with, only by actually having industry representatives involved in the technical institute training program can we be assured of the fact that the curriculum will reflect the realities of the actual job situation itself. Representatives from industries or commercial organizations for whom the training is taking place should be made a part of the institutional organization<sup>3</sup> in order to develop criteria for training, curriculum development, and finally act as the means of placement. In addition, it is important that the technical training institute devote far more resources than is ordinarily the case to counseling. We have a built-in bias in our present senior high school system which provides ample counseling for those students who are college bound, but very little guidance for those students who are concerned with a job as their next move after graduation from high school. As a result, the vocational students have very little in the way of inputs concerning fields which are open to them and further education which they may need. The same situation should be prevented from occurring if we establish these new technical training institutes. We must start out with the ideas that counseling is a major factor for the success of vocational training. The adult vocational training program has been successful in aiding Indians to develop their skills. The present authorization allows a maximum flexibility for developing special programs for Indians. The BIA should be encouraged to use this flexibility to experiment with new programs of wider scope which extend into new fields. Increasing attention should be given to apprenticeship training in the management of service and retail business. As reservation development is stimulated, the opportunities for Indians to go into this type of training will increase. The apprenticeship phase of the training might be coupled with formal training in business procedures. On-the-job training in the construction trades is also of special interest. Significant amounts of construction occur on reservations without Indians benefiting from employment. Because of short contracts and the seasonality of the industry, special arrangements need to be worked out. A special effort should be made to use on-the-job training for Indians in any "turnkey" housing contracts with Indian housing authorities. It should also be used by Indian housing construction enterprises and for training Indians for road construction work.

9. *University relationships.*—Relationships—funded either through contracts or grants—should be established with universities to stimulate and sustain their long term interest in Indian education. Ideally, several universities should develop long term relationships and interest in the educational problems of specific tribes to (a) help develop curriculum, reading, and teaching materials, (b) train teachers and guidance personnel, (c) do research, and (d) provide technical assistance.

<sup>3</sup> Serving on curriculum development groups, training advisory committees, and placement advisory committees.

10. *Adult education.*—Special efforts should be made to use the federally operated Indian schools as centers for adult education. For example, arts and crafts programs, English teaching, literacy programs, community leadership and organization, and many other subjects should be considered.

11. *Research and development.*—The federally operated Indian schools should be especially alert to promising innovations in educational techniques and technologies. The problem of improving the education of disadvantaged children is one of the major tasks faced by the Nation as a whole and by many underdeveloped countries. The federally operated Indian schools should lead the way in developing effective solutions for these problems.<sup>4</sup> Thus, a major commitment to research and development is urged not as a frill but as a basic need.

In this connection, one cannot help but be impressed with the paucity of data on almost every aspect of Indian education. A really thorough study of Indian education is badly needed. To insure objectivity, such a study should be performed by a highly qualified, university-based group which presently has no involvement in, or responsibility for, any aspect of Indian education. The study should cover the education of Indian children under all the main sets of circumstances where it occurs, i.e., in BIA schools, in State-operated public schools where Indian children are in the majority, also where they are in the minority, and in the mission schools.

B. An all-Indian school board should be established for each federally operated Indian school. The basic purposes of establishing such school boards would be (1) to give Indian parents an important voice in shaping the educational experience of their children; this is a *sine quo non* for obtaining affirmative parental involvement, which in turn is essential for any school to operate effectively; (2) to stimulate use of the schools as centers for adult education and community development; (3) to insure that the school administrators and teachers remain attuned to the attitudes and values of the local community they serve. Without such a board, the danger of school administrators being paternalistic and patronizing in their treatment of Indian parents will persist.

The school boards must be given a real voice in setting policy and programs for the schools. This recommendation may be viewed as both impractical and threatening by many BIA school administrators. There no doubt will be many practical problems to solve. For example, a careful study undoubtedly will be needed, to develop the specific areas of authority, selection procedures, and relationships to tribal government, as well as BIA, of the school boards. Also, training programs (or seminars) for school administrators and for Indian school board members will be needed to prepare them for dealing with each other. But none of these problems is insuperable.

C. Establish a National Advisory Board on Indian Education. Ideally, this should be a statutory board, but since it will take many months for Congress to consider and act on legislation, in the interim the Secretary of the Interior could establish a 12-member board, at least half of whom should be Indians; the others should be outstanding

<sup>4</sup> Much can and should be gleaned from the experiences gained from the many experimental programs supported by the poverty program which have dealt with innovative educational techniques. Federal funding of programed learning and computer-oriented learning systems lags with respect to Indian education.

educators and private citizens with broad backgrounds in public affairs. The purposes of the board would be to (1) advise the Secretary and the Commissioner of Indian Affairs on educational policies and programs for the federally operated Indian schools, (2) advise on policies and programs affecting the education of Indians in the State-operated public schools. The Board's concerns should cover the entire spectrum of the problems of Indian education. Secretariat service should be supplied by the Commissioner of Indian Affairs. Both the Commissioner of Indian Affairs and the Commissioner of Education should be *ex officio* members of the Board.

One of the first tasks of the Board would be to advise the Commissioner of Indian Affairs on the development of a comprehensive plan for making the federally operated Indian schools into a model system. The Board undoubtedly will request that certain studies be undertaken, that data be presented to it regularly, and that a periodic—probably annual—report on Indian education be prepared.

D. The Commissioner of Education should have the U.S. Office of Education use its best efforts to help the States improve the quality of education offered to Indian children.

At the present time the U.S. Office of Education is unable to even supply data on the amount of money from its grant programs which actually benefits Indian children. The Office of Education, if directed to do so, could use its resources and extensive relationships with the States to bring about substantial improvements in the quality of education now being provided to Indian children in the public schools. Furthermore, OE's research and development funds, including the regional educational laboratory program, could and should direct substantial attention to Indian education. The result will benefit not only the Indians, but all schools educating disadvantaged children.

E. Adult education and agriculture extension programs should be given additional emphasis with an expansion of funding. Both the Indian Bureau and the Office of Economic Opportunity help to provide special education and training for Indian adults. The Bureau budgeted \$1,105,000 for this activity in fiscal year 1966. The amount was reduced to approximately \$700,000 during fiscal year 1967 and the Office of Economic Opportunity budgeted \$470,000. Programs in which both are interested include literacy training, instruction in money management and civic responsibility, alcoholic rehabilitation, the arts and crafts training, and general community development.

Both agencies also contribute funds for agricultural extension and home demonstration programs. The BIA allocated \$1.8 million for this activity in fiscal year 1966 and Office of Economic Opportunity \$1,007,000. The Bureau's program includes grants to State extension services in various parts of the country. Only in Arizona and Mississippi, because of peculiar situations in these locales, does BIA provide all extension and home demonstration services on Indian reservations, rather than rely on State officials. It also provides some services in New Mexico, Florida, and Alaska. The BIA extension program also reaches Indian youngsters through 4-H Club programs. In 1966 there were 14,000 young Indians enrolled in these organizations. The Office of Economic Opportunity contributes to the adult education, extension and home demonstration efforts through grants to tribal community action programs. Among the activities funded thusly are the establishment of family centers, home and family improvement programs,



family life education and training, and agriculture and livestock management. These are all valuable programs, but reach only a small percent of those who need such help.

### EMPLOYMENT

In 1952, the Bureau of Indian Affairs undertook a national program of relocation assistance to Indians which was aimed at those family heads who were motivated to seek employment away from the reservation. Aid was also furnished to dependents and included transportation, subsistence grants prior to the receipt of a first paycheck, and counseling and guidance to the adjustment of an urban community. Later the program was increased both as to geographic scope and the range of services provided. Actually, the supportive counseling and guidance help was on an extremely limited basis. In 1956, the program was given additional impetus when Congress enacted Public Law 84-959 authorizing the Bureau to provide Indians, chiefly between the ages 18 and 35, with vocational training, on-the-job training and apprenticeship training. The original act provided for an appropriation of \$3,500,000 for each fiscal year. Due to the increased demand for this type of service by the Indian people, the act was amended on September 22, 1961, to provide \$7,500,000 each fiscal year. On December 23, 1963, Congress again amended the act to provide \$12 million each fiscal year and on April 22, 1965, further amended it to provide \$15 million a year. Obviously, the demand for this sort of program has exceeded the rather conservative estimates of the funding that was needed to provide for the supply of services and training called for.

In July 1962, the name of the Bureau's program was changed to "Employment Assistance" and at that time the concept of the activity was broadened to include placement on or near reservations as well as at the following seven urban centers: Chicago, Ill.; Cleveland, Ohio; Dallas, Tex.; Denver, Colo.; Los Angeles, Oakland, and San Jose, Calif.

At present the employment assistance program of the Indian Bureau concentrates on assisting Indians to go directly into employment; to enter institutional training in approved public and private schools; to enter employment in on-the-job training situations under contract with industry; and to enter apprenticeships. Individuals participating in these programs and the members of their families are assisted to obtain employment and are furnished grants for transportation, subsistence en route to destination, subsistence until receipt of first paycheck, tuition, personal appearance, health, furniture, and housewares and emergencies. In addition, participants are furnished counseling and guidance supportive services for adjustment to the job and the community. Included in these supportive services are prevocational training for those with a low degree of educational attainment to enable them to enter into vocational training and special orientation if needed at centers in Seattle and Oakland. The former city, of course, is primarily for Alaskan natives.

From the inception of the program through June 30, 1966, a total of about 26,000 single persons or heads of families were assisted in going directly into employment. During the same period approximately 15,000 single persons or heads of families were helped to enter

institutional training and approximately 5,000 single persons or heads of families were assisted to enter on-the-job training situations making thus for a total of approximately 46,000 program recipients for all activities. At present, institutional training is provided at a little over 350 accredited schools in approximately 900 approved courses throughout 26 States. On-the-job training is now provided under 32 different contracts with industry on or near Indian reservations in 13 States. Indians are also eligible to participate in other federally sponsored training programs such as those made possible by the Manpower Development and Training Act (MDTA) and the Economic Opportunity Act. Training programs for Indians on reservations are conducted by the Labor Department under the MDTA. Except for a limited number of all Indian projects, these are integrated MDTA efforts. Since the records of the various State employment services agencies preclude identification by race, the Department of Labor has not assessed the number of Indians participating. It is, however, in the process of evaluating the role which the Manpower Development Training programs are playing with respect to minority groups throughout the country. During fiscal year 1966 the Office of Economic Opportunity provided training and employment opportunities for Indians under four major programs: The Neighborhood Youth Corps (NYC), Title V, Work Experience, Migrant and Agricultural Placement, and Homebuilding and Improvement Training. Approximately 18,000 trainees were enrolled in the NYC and approximately 500 were enrolled under title V work experience. One reservation was funded for a migrant and agricultural placement project and three reservations with a little over \$2,250,000 were funded for projects having to do with homebuilding and improvement training.

All of these efforts by the Office of Economic Opportunity and the Bureau of Indian Affairs in the field of employment assistance are woefully slight given the overwhelming magnitude of the employment and training task. I have already alluded under the part on education to the necessity for a major expansion of vocational-educational activities, but beyond vocational-educational activities there is an urgent need for an expansion of a placement and counseling function within the Bureau of Indian Affairs. There is also a major need for an expansion of the housing and community improvement activities which have been touched but slightly by the OEO funding in 1966. Indeed, under the heading of "Employment, Job Development and Training," I would say that two major potentials for progress stand out—the first has to do with housing needs on the Indian reservation and the second has to do with the provision of incentives for business expansion of activities on or near reservations. Let me first deal with the expansion of private business activities on or near Indian reservations.

Most Indian reservations are relatively unappealing locations for industry. Most were established on lands with little economic importance to the white settlers. With few exceptions, despite the technological progress of the past century, the Indians' lands generally remain of limited potential, especially in relation to their burgeoning population. (In contrast to a nearly 50-percent decline in the U.S. farm population from 1930 to 1960, the Indian population on or near reservations jumped by more than 50 percent.) Non-Indians have been

quick to exploit the few valuable economic opportunities, ranging from furs to oil, and few durable benefits have accrued to the Indians. The distances between reservations and major markets result in high transportation costs. Intrareservation transportation systems are minimal. There is an acute shortage of management skill on reservations. Much of the labor force is untrained and unaccustomed to the requirements of steady employment. Utilities and public facilities are only in the early stages of development. The Indian population is widely scattered; few Indian communities have a population of over 3,000.

Strong incentives, therefore, are needed to attract industrial plants to reservations. The package of incentives proposed below is absolutely essential to secure the additional jobs upon which the full range of Indian progress depends. Later in this section, a plan for a new instrumentality to help foster an economic takeoff, the Indian Development Corporation, is set forth.

#### A. INCENTIVES TO ATTRACT INDUSTRY

Private capital, business ideas, and management capability are powerful forces for the rest of our country, but little of their impact has been felt on Indian reservations. It is doubtful that many industrial firms will locate their plants in these areas, far from their other operations and from localities that are attractive living places for their executives, unless inducements stronger than those now being offered by thousands of municipalities throughout the country are available to attract them.

1. *Employment tax credit.*—A prime incentive should be a tax credit for industries that establish new plants on or near reservations, based on the number of Indians they employ. This approach is offered for three principal reasons:

(a) There are over 100 reservations with serious unemployment problems. The amount of tax credit could be varied to meet the needs of each of these different situations.

(b) The benefit would apply only to economically feasible enterprises. A direct employment subsidy, in contrast, would require payments to firms whether or not they were profitable and thus tend to encourage marginal operations.

(c) Direct Federal budget expenditures would be avoided. This would tend to encourage the maintenance of a consistent program over a period of years without dependence on the uncertainties of the appropriations process. Also, an increase in the Federal budget would not occur, even though the net effect due to the reduction in revenue might be the same. Furthermore, many industrial firms will not accept a direct subsidy payment, but welcome a tax credit.

2. *Details of tax credit proposal.*—Although the details of a tax credit proposal would have to be worked out in consultation with both industrial and Indian leaders, certain principles appear as important for such a plan:

(a) Eligibility should be based on a certification by the president of the Indian Development Corporation (described below) that the enterprise would make a significant contribution to reducing unemployment on the reservation. Only firms employing a minimum of 10 Indians or with Indians comprising 10 percent of their labor force

of over 100 should be eligible. The purpose of the certification is to limit the credit to firms contributing to Indian development.

(b) The tax credit should be limited to a maximum of \$1,200 per 12 man-months of Indian employment. For purposes of relating the credit to the degree of adversity in economic conditions, reservations should be classified into four categories. Some reservations should be ineligible for credit; others should be eligible for a credit of \$300, \$800, or \$1,200 per 12 man-months of Indian employment based on the expected difficulty in attracting industry. The president of the Indian Development Corporation would be responsible for making the classification based on recommendations made by an advisory committee composed of qualified businessmen, economists, and other experts. One year after the classification was announced, it would be reviewed for possible adjustments and reviewed biannually thereafter. However, once a firm received a certification for a specified tax credit, it should not be changed.

(c) The tax credit should be limited to 10 years for each new enterprise established, with 1978 as the cutoff date for establishing eligibility.

(d) The credit should be applied only in the years in which Indians are employed and only against the tax liability for the specific plant in which Indians are employed.

3. *National benefit of tax credit proposal.*—The net effect upon the Nation's economy would be beneficial whether or not a high general employment level prevailed.

A general assumption is that the U.S. economy will continue to operate at a high level of employment, and that any labor displaced by industry relocating on Indian reservations is mobile and will find employment elsewhere. Because of the structural character of Indian unemployment, there is no "opportunity cost" for Indian labor, as Indians employed by industry locating on a reservation would not be giving up other jobs, or if they did would be leaving a vacancy that could be readily filled by other less skilled and unemployed Indians.

Assuming that the annual wages for Indians employed by industrial firms average \$3,000, the net benefit to the economy would be somewhere between that figure and about \$1,800 a year. The initial benefit would be the \$3,000 wage itself. Against that should be set the net cost to the economy incurred from locating plant facilities on a reservation rather than elsewhere in the country, e.g., additional transportation, incentive pay to management for living on a reservation, and possibly some underutilization of plant capacity off the reservation. Together these items might amount to as much as \$1,200 per Indian job. Because the tax credit is only a transfer of funds from one group to another in the country, it would not be a real cost to the economy.

If, on the other hand, the economy were not at a high level of employment, the relocation would result in a net cost to the economy because the wages provided would not in themselves be a clear gain. However, a significant number of the industries that are expected to locate on Indian reservations are the type that in the absence of the tax credit would locate outside the United States. (The two largest industrial employers on reservations, employing 450 and 225 Indians, respectively, are firms that were planning to locate plants outside the United States until they were persuaded to locate on reservations.) The benefit to the economy of each Indian employed by this type of

firm would be \$3,000 plus increasing the demand for goods in the rest of the country (estimated to equal the Indian wage), giving a minimal benefit of \$6,000 per employed Indian. Thus, in a depressed employment situation, assuming again that the relocating costs could reach a maximum of \$1,200 per job, if only one job out of six were provided by industry that would otherwise locate outside the United States, the net effect for the economy would still be beneficial.

In sum, the tax credit would increase total employment and production in the United States. Without it, some of the production and income will not be realized at all, and some will be carried abroad by firms unable to find the necessary types of labor in this country. Whatever the effect on tax revenues from this additional production, the Government would also reduce the costs of relief expenditures now being made to support impoverished Indians on the reservations.

4. *Depreciation allowances.*—Much of the industry attracted to reservations as a result of the employment tax credit will be highly labor intensive and have relatively low skill requirements. Resulting wage rates will be low in relation to general industrial wages. In order to attract industry with higher skill requirements and to present Indians with the opportunity to develop higher paying skills, a rapid depreciation schedule should be provided. Such a schedule might follow the lines of the special depreciation schedules during the Korean war. To prevent misuse of the rapid depreciation authority, a firm would have to obtain a certification from the President of the Indian Development Corporation that the installation of equipment on a reservation would benefit Indian employment.

5. *Credit financing.*—Whether measured by ratio of investment to population or investment to natural resources, Indian reservations are drastically undercapitalized. A significant portion of the capital required to develop the 60,000 jobs needed by 1977 must be provided or backed by the Federal Government. A variety of forms of credit should be authorized to provide a spectrum of instruments to finance job-creating enterprises. There are at least three specific needs of such credit:

(a) Credit is needed for construction of factory buildings and related facilities on reservations to offer modern plants at reasonable rentals to interested industries. Municipalities throughout the country now finance, through tax-exempt bonds, facilities of this type. Indian tribes lack the credit standing or the authority to issue bonds for those purposes. To compete for plant location, Indian tribes must be on at least an equal footing with municipalities.

(b) Credit is needed for financing the establishment of Indian-owned enterprises such as for housing construction. With technical assistance, tribes should be able to start natural-resource-based and service industries.

(c) Credit is needed for starting small business enterprises. As the rate of economic activity on reservations increases, individual Indians will be encouraged to start service activities. Private credit is not generally available on reasonable terms to Indians. Hence, two things are needed: (1) authority to guarantee private loans and (2) authority and funds to enable the Indian Development Corporation to make direct loans.

In order to provide for this level and type of credit, innovative approaches must be utilized. To move in this direction, I would recommend:

(a) Legislation authorizing an Indian Development Corporation, initially to issue \$200 million of bonds backed by the full faith and credit of the U.S. Government. The bonds should be in two series: One, to fund projects for which a municipality could issue tax-exempt bonds, and another to fund other direct lending operations of the Corporation. A 40-year amortization period should be authorized, and up to a 10-year development period during which payment of interest and principal could be deferred.

(b) The Indian Development Corporation should be authorized to sell short-term securities to tribes as an inducement for them to invest up to \$150 million which are now held in Treasury trust funds.

(c) The Indian Development Corporation should be authorized to guarantee loans to tribal corporations and individual Indians along the lines of H.R. 9323 of the 89th Congress, and to make grants in conjunction with loans along the lines of H.R. 9323 for small business enterprises only.

(d) An initial appropriation of \$50 million should be authorized to the Indian Development Corporation as a fund for paying guarantee and insurance claims and to meet deferred interest and principal payments on outstanding loans.

(e) In addition, the Bureau of Indian Affairs' Revolving Loan Fund should be transferred to the Indian Development Corporation and be merged with the Corporation's credit operations. Additional direct appropriations should not be requested for the revolving fund since funds will be available from the receipts of bond sales.

6. *Planned industrial communities.*—An additional economic development program would suggest that independent financing should be used to establish planned industrial communities on Indian reservations to help demonstrate to industry the potentialities for locating plants on reservations.

Especially at the early stage of the 10-year development period, it will be difficult to bring together the sources of financing suggested above to permit experimentation in the formation of new model communities, and to avoid harmful effects of haphazard community growth. A special \$10 million grant to the Indian Development Corporation could provide necessary leverage, above and beyond other financial resources available from housing, education, and other programs.

It is important to develop a concept that goes beyond merely providing physical facilities. We should seek to create the opportunity for imaginative organizations to suggest how a specific group of Indians can organize itself into an economically viable community—even to the extent of suggesting how the community should govern itself. Flexibility and freedom to try new ideas should be the hallmark of the effort.

Since the communities are being developed primarily to create jobs, the Indian Development Corporation should have overall responsibility for the grants. It should invite proposals from business, nonprofit and any other interested groups, for the development of one new and one existing Indian community. Each should be in separate sections of the country to obtain the greatest demonstration value. Communities of about 2,000 and 5,000 should be specified to show applicability to dif-

ferent size populations. The grant might be divided—\$3 million for the smaller community and \$7 million for the larger.

To obtain maximum participation, a two-stage process is suggested. First, proposals should be invited for a general feasibility plan for the development of an Indian community. Four of the best plans, as determined by a panel of experts, might be purchased at \$50,000 each. The organizations submitting these plans would then be asked to develop detailed proposals for the communities. From these four proposals, two would be chosen for development. The winning organizations could have responsibility for managing the development phase (assuming they were judged to be competent to do so and the affected tribes concurred).

Obviously, an appropriation of \$10 million would have to be authorized for this demonstration program for the design and establishment of the two Indian economic growth centers.

#### B. THE INDIAN DEVELOPMENT CORPORATION

Although economic development has been a major goal of the Bureau of Indian Affairs in recent years, and job-creating programs have been initiated, these efforts have not been able to cope with the population increase and the decline in employment available to Indians in agriculture, let alone the large backlog of unemployed Indians. A new organization at the national level is needed to administer the incentives described above and create 60,000 new jobs for Indians by 1977. Leadership can best be provided by a federally chartered Indian Development Corporation (IDC) with broad responsibilities to promote economic development on Indian reservations.

The IDC's major concern would be to mobilize the energy and know-how of the private business sector. The image and visibility of the organization would be important in eliciting business cooperation. A corporate organization would permit businessmen to participate in the direction of the programs through membership on the board of directors (as described below). In addition, the corporate form of organization, which is familiar to businessmen, would be an advantage in the many contacts that would result from industrial promotion, credit, and economic incentive programs.

Stability in administration, funding, and leadership are needed to convince Indian tribes that the Federal Government is sincere in its development programs. Primary reliance on bond financing rather than annual appropriations, and the Indian participation on the board of directors of the corporation would help meet these requirements.

The personnel needed to administer a development program of the scope required are not available in the Bureau of Indian Affairs, and are not likely to be attracted there. I fear that the imagination and drive needed to initiate the new programs would not be forthcoming if they were simply added to the responsibilities of BIA. The economic development program will need to be closely meshed with other BIA activities, but it is a clearly separable part that should be carried on elsewhere if the necessary forward movement is to be achieved.

1. *Organization.*—The IDC should be governed by a 15-man board of directors appointed by (and to serve at the pleasure of) the Presi-

dent with the advice and consent of the Senate. A membership along the following lines is suggested :

Six Indian members.

Five businessmen.

Two educators.

Commissioner of Indian Affairs.

A senior official in the Department of Commerce.

The president of the Corporation should be selected by the Board of Directors. He would be the Corporation's chief executive officer with direct responsibility for its management.

The IDC will need a Washington and a field staff to carry on its contact work with the proposed individual tribal development corporations. This staff, which may ultimately reach several hundred, should include economists, specialists in industrial credit and promotion, business and management training, and industrial processes. To maintain a private business orientation, a number of the staff should be obtained from business to serve a 2- or 3-year tour of duty. (Retired industry executives may be a good source of highly qualified personnel.) The IDC should be exempt from the Classification Act and the civil service personnel system to permit maximum flexibility in its staffing. Arrangements might be worked out whereby IDC would make payments to the retirement system of a private company or the Federal retirement system while an employee was working on the staff of the Corporation. The expenses and staff of the Corporation should be financed by a regular annual appropriation.

2. *Aims and functions.*—The aims of the IDC should be, first, to encourage and promote business firms to establish on or near Indian reservations industrial, commercial, and agricultural enterprises that increase the economic opportunities open to members of the Indian tribes; and, second, to encourage and promote Indian ownership and management of industrial, commercial, and agricultural enterprises.

In pursuing these aims, IDC would carry out the following functions:

(a) Managing the industrial incentives program described in section A above. In addition to classifying reservations for the employment tax credit, this would involve making certifications of eligibility for each firm that wanted to obtain the employment tax credit and the rapid depreciation allowances;

(b) Carrying on an intensive industrial promotion campaign to persuade industry to locate on Indian reservations;

(c) Chartering tribal development corporations which would be the on-reservation organizations to promote and establish business ventures;

(d) Aiding the tribal development corporations by—

(1) Helping prepare reservation profiles for industrial promotion;

(2) Making grants to them for general economic surveys and project feasibility studies. In connection with these grants, IDC would develop and maintain a roster of competence of individuals and organizations capable of providing responsible planning assistance to the tribal corporations. Use of consultants on this list would be mandatory for studies funded by IDC grants;



(3) Providing loans to them for financing industrial plants and support facilities which could be leased to industries locating on reservations;

(4) Making loans to tribal corporations to finance tribal and individually owned Indian business enterprises. Along with this IDC would provide technical assistance.

(5) Conducting leadership and management training for the boards of directors and officers of the tribal corporations and the managers or potential managers of tribal enterprises; and

(6) Carrying on relevant research.

In conclusion then, I would suggest that Congress authorize a federally chartered Indian Development Corporation with broad responsibility to promote economic development on Indian reservations. BIA's credit and industrial promotion activities should be transferred to this corporation.

3. *Tribal development corporations.*—The tribal development corporations are the on-reservation instruments for promoting and initiating economic development. They should be organized under a charter obtained from IDC with a board of directors appointed by a tribal council for fixed terms. Non-Indians with business experience should be included on the board. The corporations should have the usual qualities of corporations in that they could sue and be sued, enter into contractual agreements, etc. Their primary responsibilities would include—

(a) Preparing and keeping current the necessary plans for developments;

(b) Developing in conjunction with the IDC a package of incentives that could be offered as an inducement to industry to locate on a reservation. For example, the tribal corporation might offer to lease a building and equipment to a company—financing them by a loan from IDC;

(c) Establishing Indian enterprises to develop tribal forest, recreation, or other resources. The tribal corporation probably would take the project through the feasibility study stage and then hire a manager (initially many tribes would have to rely on non-Indians for management) to set up and run the enterprise. While we expect IDC to recognize the developmental character of these Indian enterprises and, therefore, to be liberal in providing credit and technical assistance, the enterprises must be able to demonstrate economic viability after a development period;

(d) Providing credit for individually owned Indian businesses. The tribal corporations would act as a relending agent for IDC. This is not expected to be a large activity, but it is important to the small Indian farmer or businessman who does not have access to normal commercial credit;

(e) Managing tribal lands. The arrangement here could be flexible. A tribal council could turn over all or part of the management to a tribal development corporation or retain a veto power over certain aspects, such as long-term leasing or mineral rights. Using a tribal corporation would remove management from the pressure of tribal politics and encourage more productive use of tribal assets;

(f) Establishing tribal construction firms. As will be indicated later, housing construction offers a most promising way of providing jobs quickly on Indian reservations. The need for housing is great and the skill requirements, if extensive use is made of preassembly techniques, can be acquired rather rapidly. On-the-job training programs should be used to permit Indians to acquire necessary construction skills. The idea is to move as rapidly as possible in establishing a functioning construction organization, relying initially on non-Indian management if necessary. Because of the urgent unemployment situation on reservations, Indian labor should be given preference for jobs in housing construction.

I believe more Indian employment will be generated if the Indians themselves establish housing construction enterprises, but the requirement to use Indian labor should also apply for housing built by private contractors on reservations.

### C. PLANNING

Indian tribes and the Bureau of Indian Affairs have been involved in a number of planning efforts in recent years. The two major ones have been the development of 10-year reservation programs requested by the Secretary of the Interior in 1964, and the preparation of overall economic development plans required for participation in programs of the Economic Development Administration.

The quality of these efforts has varied widely, but even the best of these plans do not provide an adequate foundation for an economic development program.

Recently, the Bureau of Indian Affairs has tried a new approach to planning in developing an estimate of the existing and potential capacity of the Turtle Mountain Indian Reservation to support the dependent population. This brief study focuses on the essential elements for development and is an example of a useful first step in development planning.

The IDC should have an adequate fund, say \$15 million for grants to tribal development corporations for economic development planning.

The grants would be used for three levels of planning, (1) an economic strategy plan for the reservation, (2) a reservation profile (including special studies such as mineral inventories and skill surveys), and (3) project feasibility studies. Each of these types of planning is discussed in detail below. Grants for planning should be made on an application basis except for an initial amount that should be allocated to a tribe upon forming an acceptable tribal development corporation. Allocation of the initial grants should follow a schedule to be developed by the Indian development corporation. A maximum of \$4.5 million would be used for these initial grants. The remainder should be used to finance, on a full-cost basis, the preparation of reservation profiles, special studies necessary to fill out the reservation profiles, and project feasibility studies. A tribe should contribute financially to this planning phase of development by providing the initial operating expenses of a tribal development corporation.

Each tribal development corporation should use the initial grant for the preparation of a reservation profile and, if appropriate, for an economic strategy plan. Further financial assistance should be

conditioned on the tribal development corporation submitting an acceptable economic strategy plan to IDC. The plan should be descriptive of the reservation area, the population and labor force, principal economic activities, and the area's resources. A primary emphasis should be on identifying the number of jobs needed during the next 10 years to provide a high level of employment for the tribe. All of the economic planning done by the tribal development corporation should be directly related to reducing the gap between present employment and the jobs needed to attain a level of employment comparable to the rest of the economy by 1977.

1. *Economic strategy plan.*—The tribal development corporation should take the lead in its preparation with full participation by the tribal council, IDC, the BIA, and other relevant agencies. The plan should be comprehensive in its coverage of development possibilities without trying to provide an in-depth analysis of each. To keep from getting bogged down in a long planning process, a tribal development corporation should try to complete the plan in less than 6 months, using existing data together with contributions from people familiar with the reservation and its potential for development.

The heart of the plan should be a strategy for eliminating the gap between present employment and future high-level employment through a series of action proposals, such as:

(a) Investment to expand existing economic activity or to establish a housing construction enterprise;

(b) Vocational training to qualify Indians for on- or near-reservation jobs or for out-migration;

(c) A package of inducements to a nonreservation resource-based industry to locate a plant on the reservation.

The plan must treat realistically the various constraints (financial, time, manpower, etc.) within which an action program must be devised. Inattention to constraints has been a major fault of previous Indian planning. Finally, the plan should focus on actions with the highest job-creating payoff and provide a schedule of priorities for action.

Primarily, the plan is a guide for the tribal corporation's action program. It is the focal point for interrelating the many variables on which successful economic development depends and it should serve as a working outline of an array of priorities for action by the tribal corporation. Updating the plan on at least an annual basis will be necessary to maintain it as an effective guide to action.

Indian Development Corporation must insure that each economic strategy plan provides a reasoned set of proposals for eliminating the reservation employment gap. Then the plan can serve as a guide to IDC in making grants for project feasibility studies and the preparation of reservation profiles.

2. *Reservation profile.*—The reservation profile should be the basic document for promoting the location of industry on Indian reservations. Several types of profiles are needed. A profile emphasizing the availability and abilities of the labor force should be prepared for reservations desiring to attract labor-intensive operations with low product transportation costs. If a reservation has an abundance of natural resources, special climatic conditions, or a strategic location in terms of markets or some other unusual competitive advantage, special-purpose profiles, directed at a particular industry or industrial group, should be prepared. The IDC should provide technical and

financial assistance to the tribal corporations for these special-purpose profiles.

The profile must focus on selling a particular reservation as a profitable location for industry. It should include information on the following:

- (a) Population and labor distribution.
- (b) Labor availability and skill on and near the reservation.
- (c) Educational levels.
- (d) Housing.
- (e) Cultural characteristics of relevance to the subject.
- (f) Utilities and public facilities.
- (g) Transportation.
- (h) Inventory of reservation natural resources.
- (i) The nature of extent of tribal and Federal Government assistance available to industry locating on the reservations.
- (j) The nature and jurisdiction of tribal government.

Where reliable information is lacking, surveys should be made. Many reservations appear to need labor or skill surveys.

The type and depth of information gathering should be governed by the priorities in the previously discussed economic strategy plan. For example, although a complete natural resources inventory may be desirable for the profile, the cost and time required for making one must be weighted against alternative efforts to attract job-creating economic activity.

3. *Project feasibility studies.*—The project feasibility study is the final step in the planning process. It must provide a tribal corporation or a firm with a profitability analysis sufficiently comprehensive to enable management to make a decision on whether or not to undertake an enterprise. The importance of the feasibility study in subsequent decisionmaking and financing necessitates careful selection of the personnel making the study. IDC should require the tribal corporations to use personnel or firms on its roster of competence for feasibility studies financed by its grants. Because these studies are relatively costly, IDC should attempt to screen out unpromising projects before going to a full feasibility study.

#### D. LEADERSHIP AND TRAINING

Any economic development program must depend upon an adequate number of leaders—Indian as well as non-Indian. If the anticipated gains are to endure, an increasing number of Indian leaders must be developed with the skills needed for operating in the modern economic and political setting. But one must also be aware of the opportunity the economic development programs offer for increasing Indian leadership and vocational skills.

There are, of course, Indian leaders of the highest quality now available. However, programs have sometimes been delayed or foundered for lack of a sufficient number of leaders among the Indians. If the envisioned economic activity becomes a reality, the present number of leaders will be far too few in number.

As tribal development corporations and other ventures begin to grow, the existing leadership will undoubtedly assume control. These exercises in leadership should be available for observation by potential Indian leaders from other tribes. These potential leaders should be

exposed to good projects, ably led, by several weeks' stay at the projects. During these 2- to 3-week visits, discussions could center on the problems of community organization, Federal and State programs which are relevant, techniques for sharing responsibility, and so forth.

The major focus should be that of learning by exposure to success situations involving peer groups or those with whom there is true identification. Financing and general guidance for this program should be provided by the IDC.

The tribal corporations could at the very outset establish a training program for junior management and leadership positions. These programs could be started at an existing institute such as Haskell in Lawrence, Kans. Other traditional Indian training institutions beyond high school could be used. Other organizations which have heavy interests in Indian problems and are properly equipped, such as Arizona State University, could also provide these types of courses.

In essence, these courses would be geared to provide very basic training in such fields as accounting business practices and law, and business management for those Indians who have demonstrated some leadership ability and interest, probably at the high school level. These programs could also include trips to functioning programs on Indian reservations where economic development is a key focus.

It may also be that field trips to educational institutions which have an important ingredient of management and accounting could be utilized. The important point is to expose individuals to already ongoing and established programs where some administration and business practices are involved and to the utilization of managerial functions.

There should also be established an apprenticeship training program in junior management positions in tribal government programs. In some instances, the tribal governments themselves represent an important learning mechanism for management and leadership. This type of training should be supported by the existing BIA and tribal scholarship grants or on-the-job training grants under the adult vocational training program. Young people who are interested in moving into managerial positions could be trained in an apprenticeship-type position within established tribal governments. The National Institute of Public Affairs in Washington, D.C., which is concerned with the same problem of training young people for management positions in the Federal, State, and local government agencies could be looked to for guidance as well as actual operation of training programs.

It is also possible that a number of young Indians who have left reservations to seek their fortunes elsewhere may still have ties with the reservation. When tribal development corporations or other types of ventures are underway, this potential supply of leaders could be given incentives to return to the reservation to function in a leadership capacity.

#### E. IMMEDIATE MEASURES TO DECREASE UNEMPLOYMENT

The above measures will require a few years for their full impact to be felt. In the interim, immediate measures are needed to reduce male unemployment on reservations, which is now about 40 percent.

I would recommend that \$20 million be provided for a combined on-the-job training and public works program to provide immediate em-

ployment on Indian reservations and to upgrade the skills of many of the unskilled unemployed.

The projects should, of course, contribute to solution of the transportation, public health, and housing needs of the people. In addition, some unemployment might be alleviated, and employability of many Indians enhanced, by enrolling unskilled unemployed in prevocational training programs of up to 2 years duration for which they would receive stipends at the same rates as unemployment compensation.

#### HOUSING AS A MAJOR SOURCE OF EMPLOYMENT AND TRAINING

The housing conditions of Indians and Alaskan natives are worse than those of any other minority group in the Nation. Of the 76,000 houses on Indian reservations and trust lands at least three-fourths are below minimum standards of decency. These shelters, such as they are, are grossly overcrowded and more than half are too dilapidated to repair. Virtually, all the shelter of Alaskan natives is unsound, dangerously overcrowded, and unfit to live in. The conditions under which most Indians live not only threaten their life, health, and morale, but are a major contributing factor to their continuing poverty and their isolation from the fruits of constructive change and progress. Up to 1961 little visible effort was made to alleviate the housing problems of the American Indian. More recently, the problem has been acknowledged and from a large inventory of national housing devices, several, at long last, have been invoked that are proving of slight help. The number of dwelling units provided, however, has been miniscule in relation to the need. Housing construction for these families, about 1,000 to 1,500 units annually, are not even keeping pace with deterioration, decaying and population growth. The Housing Assistance Administration (HAA) is administering the program which has been providing the bulk of the new housing for Indians, such as it is. Indicative of the response is that 80 Indian tribes have organized housing authorities and applied for grants for some 5,500 homes. Half of these homes are low-rent public housing projects and the other half are mutual self-help undertakings. The low-rent projects, of which 960 dwelling units have been completed and of which 301 are under construction, cost an average of \$17,500 and require rent payments equal to one-fifth of the family income. But they are only serving the upper one-tenth of Indian families.

The self-help undertakings are being built with contributed Indian land and labor under supervision of the Bureau of Indian Affairs and with materials, equipment, and skills paid for from HAA funds. One hundred thirty-six units have been completed at an average unit cost of \$9,300 and 315 are under construction. Rents are upward of \$7 monthly plus utilities, and ownership is possible, on the average after 17 years of payments. The program is small but it marks an important beginning.

Housing Assistance Administration has been recently considering a turnkey approach under which a tribal housing authority will agree to buy houses designed and built by a private contractor. Housing Assistance Administration feels that this will produce houses faster and up to 20 percent cheaper. If it is successful and substantial it could offer a helpful prospect to a group of Americans that has too long been neglected in the march of progress.

Other housing programs from the general inventory of Federal housing aids have also been helpful although not too substantial. In the period 1960-65 only 393 Federal Housing Administration insured loans were made to Indian families. In the same period only 124 home construction loans were made by the Farmers Home Administration and despite the large number of Indian war veterans, few have qualified for the Veterans' Administration mortgage guarantee program. In addition, BIA, through its revolving credit funds, has made loans for both new housing and housing improvement indirectly through the tribes, but between 1960 and 1965, only 1,200 Indian families benefited with new homes. BIA, between 1963-66, has produced 368 new homes for the most severely handicapped families, mainly in the northern tier of States. OEO is sponsoring experimental programs. One is on the Rosebud Reservation in South Dakota involving 375 units of minimum standard at an overall cost of \$5,000. The other project at three Minnesota reservations is designed to train Indians in the building trades. The costs per unit are expected to be \$11,400. OEO and the manpower development training program will expend \$6,600 per unit for supervision and training costs. A few Indian tribes have also set aside specific sums for new housing and home improvement, but these too have been of minor significance in relation to the total situation. The \$10 million authorized in 1966 for the housing of Alaskans at maximum per unit cost of \$7,500 will provide homes for no more than about 1,300 native families.

*If all of the programs mentioned were carried to their maximum projection and if all of the HAA assisted dwellings were completed in a year, it would be hardly more than a demonstration.* The rate of building would not keep pace with the continuing deterioration and dilapidation, needs resulting from families moving to centers of employment, and continuing population growth. Impediments to more rapid progress in the housing field are certainly not a part of the focus of this particular study having to do with employment and training. It is interesting to note, however, that one of the causes of the Federal Government's housing dollar not going as far as it should results from the Davis-Bacon policy having to do with wage structures. Indian housing costs are often inflated by as much as 25 percent by the Department of Labor's current policy of determining prevailing Davis-Bacon wages for construction under Government contract. Under this policy union scales prevailing for commercial construction in urban centers becomes a standard rather than prevailing wages for housing construction in the private sector on or near the reservation. Wage rates for housing construction on the Arizona side of the Navajo Reservation, for example, are based on the Phoenix rate plus a travel increment, bringing the total hourly wage for a common laborer to \$3.74 an hour, or more than *double* the prevailing rate on the reservation.

A number of experts concerned with Indian housing have indicated that over a 10-year period roughly 100,000 units, of which approximately 80,000 units are new, would have to be provided for the housing needs of the Indian population. The difference of about 20,000 units would presumably be those which have to be repaired, renovated, or extended in some manner. If we are to assume that an average unit might cost in the neighborhood of \$10,000, then a program of approximately \$1 billion is indicated. Not only is this a massive expenditure, *but it is also an opportunity for a massive training program.* Housing

and transportation, as well as the shopping centers which should be concomitant with a major housing effort, represent an opportunity for the infusion of new and more meaningful apprenticeship training programs and MDTA as well as on-the-job training programs in all reservation areas calling for this additional housing. Beyond the housing itself, however, it must be understood that the roads and the communication nets which would have to be established to service these new communities could become the basis for training in a number of areas in the construction fields. This training opportunity, of course, would call for a major change with regard to the use of force account.

Prior to 1953 most of the construction projects on Indian reservations utilized manpower on those reservations. During the middle and late 1950's, however, there was a radical move away from the use of force account in the direction of commercial contracts involving employees from outside the Indian areas. In the recommendations of the task force on Indian Affairs in 1961 it was recommended that "wherever contracts are let for construction on Indian reservations, the Bureau of Indian Affairs or tribal government should insist that these contracts contain clauses giving employment preference to local residents. To do so will not violate Executive policy with respect to fair employment practices, since the basis for employment preference will not be racial." Since this report was issued, steps have been taken to increase the force-account participation in contract work on the reservations. For example, by November of 1966 road construction had been converted from 100 percent contractor to about 50 percent force account and 50 percent contract. And it is estimated that during 1966 almost 1,500 man-years of Indian labor were generated by this change. The housing improvement program was initiated in 1964 and was 100 percent force account. The building and utilities construction program has remained generally unchanged with about 94 percent carried out by contract. Except for large complicated projects, the Alaska work has continued to be done by force account.

As a result then, we have begun to move in the direction of more force account; and in some types of construction, the force-account proportion is quite high. This, however, should be continued; and, in the event of a major housing effort, force account should be utilized not only for the immediate labor input but as a means of coupled, on-the-job, and institutional training programs. The housing needs of the Indian population represents a dramatic opportunity which, if it is seized upon, can become a major training ground in the construction trades with opportunities resulting not only for continued employment on the reservation, but for employment in the various construction trades in cities to which young Indians may move in the future.

### REORGANIZING FOR MORE EFFECTIVE INDIAN PROGRAMS

In closing I would like to concentrate on one major remaining issue. This is the issue having to do with the adequacy of the present location of Federal organizations dealing with Indian problems.

The Bureau of Indian Affairs has been in the Department of the Interior since 1849, the year the Department was established (it was previously in the War Department). Until 1955, the Bureau was responsible for providing all Federal services to Indians. In 1955 the responsibility for providing health services was transferred to the



Public Health Service, where it currently rests. (However, the appropriation for the Division of Indian Health is not reviewed by the subcommittees responsible for the Public Health Service appropriation; it is considered by those responsible for the Bureau of Indian Affairs appropriation.)

In fiscal year 1966, the Bureau of Indian Affairs had an employment ceiling of 15,951 and an appropriation of \$207.6 million. All but 300 of the Bureau's staff are located in the field. As can be seen from the attached table, over 9,000 people and \$109 million—that is, 57 percent of the people and 53 percent of the budget—were required for the education function. In the same year, the Division of Indian Health employed 5,740 people and had an appropriation of \$81.3 million. Thus, two-thirds of the people and two-thirds of the funds are required to provide education and health services to Indians. If welfare, guidance, relocation, and vocational training services are added, three-quarters of the aggregate appropriation for Indians is allocated to health, education, and welfare functions.

In addition to these appropriations, in the past few years several other agencies have initiated significant programs affecting Indians. The Office of Economic Opportunity and affiliated agencies obligated \$31.9 million in fiscal year 1966 for projects benefiting about 100 tribes in 23 States. The Housing Assistance Administration has provided \$17 million for public housing—both for low rent and mutual self-help—on Indian reservations in fiscal years 1964 through 1966. The Economic Development Administration made available \$2.3 million in fiscal year 1966. The Office of Education provides funds to the public schools in which 100,000 Indian children are being educated, but data are not available on the amounts benefiting Indians from their various programs—particularly under Public Laws 874 and 815 (Federal impact areas) and Public Law 89-10 (the Elementary and Secondary Education Act).

*Bureau of Indian Affairs—Appropriations and employment*

	Appropriations (millions)			
	1956	1961	1966	1966 employment
Education.....				9,116
Operation.....	\$30.0	\$55.5	\$87.0	
Construction.....	5.0	12.0	22.0	
Welfare and guidance.....	3.8	6.9	13.5	388
Law and order.....	.4	1.3	2.9	276
Road:				
Maintenance.....	2.3	2.8	3.8	338
Construction.....	4.7	9.5	17.5	970
Relocation and vocational training.....	7.0	6.5	14.5	471
Management and development of trust property.....	8.4	14.0	17.8	1,688
Agricultural extension.....	.9	1.2	1.8	55
Credit assistance.....	.4	.3	1.6	141
Tribal operations and reservation programs.....	.3	.7	2.9	226
Irrigation: Construction and operation.....	3.7	4.7	13.3	834
Construction and maintenance of buildings.....	.8	1.6	2.8	395
Industrial development.....			.7	50
Housing development.....			.8	95
General administration and other.....	2.7	4.0	4.7	960
<b>Total.....</b>	<b>74.4</b>	<b>121.0</b>	<b>207.6</b>	<b>15,951</b>
Division of Indian Health, HEW:				
Medical care:				
Operation.....	33.8	49.7	67.2	5,740
Construction.....	5.0	9.7	14.1	
<b>Total.....</b>	<b>38.8</b>	<b>59.4</b>	<b>81.3</b>	<b>5,740</b>

In the material analyzed and evaluated in the preparation of this paper, the writer could not help but be impressed by:

*A. The lack of socioeconomic data about Indians*

Considering the continuity of responsibility for so many years and the extraordinary complexity of the problems for which the Bureau of Indian Affairs has been responsible, the discovery that such data were not available comes as a real shock to any researcher. The Bureau has no really hard data on population dynamics, income, employment, education, and so forth. It has few benchmarks against which to measure progress, and more importantly, grossly inadequate data on which to base economic development and manpower programs.

*B. The total lack of research*

A related matter, equally shocking, is the total absence of any research and demonstration funds in the BIA budget. A sensitivity to social science research and the linkages between research and demonstration and program innovation has not existed in the past in BIA. Apparently the Department of the Interior has not served to catalyze such an interest by providing any resource stimulus.

*C. The absence of consultants*

The Department of the Interior and the BIA apparently were, in the past, untroubled by their lack of access to consultants. Interior's departmental appropriation bill restricts total annual expenditures for consultants to \$200,000 (slightly over one-tenth of 1 percent of its \$1.5 billion budget). BIA, which accounts for 15 percent of the Interior Department's total budget, is allocated \$6,500 for consultants, or about 3 percent for the consultant funds. Not surprisingly, the BIA makes very little use of consultants. (By way of contrast, HEW had \$5,572,000 allocated for consultants in fiscal year 1967—27 times the amount of Interior's allocation, although its budget is only 10 times greater than Interior's.)

*D. The organizational status and location of the Bureau*

The Commissioner of the BIA reports to the Assistant Secretary of Land Development. But the central concern of the BIA today is *human* resource development, not land management. It was only a year ago, in mid-1966, that the educational function was elevated in status from a branch to a division—this despite the fact that over half the BIA staff and half its budget are devoted to education.

On the basis of the foregoing, two conclusions would appear to be called for, at least to the writer:

I. Primary responsibility for Indian affairs should be transferred from the Secretary of the Interior to the Secretary of Health, Education, and Welfare.

II. All of the functions currently assigned to the Bureau of Indian Affairs should be transferred to a single new agency in the Department of Health, Education, and Welfare. This new agency should have a direct reporting channel to the Secretary, probably through an Administrator for Indian Affairs.

The transfer of overall responsibility for Indian affairs to HEW would place executive branch responsibility in the department best equipped to develop effective programs to meet the needs of the Indian people, because it is the department responsible for related

programs for the general public. HEW programs emphasize human development as contrasted with Interior's program emphasis on conservation and natural resources. (The recent transfer of the water pollution responsibility from HEW to Interior was clearly consistent with this recommendation.)

The Indian affairs functions consist of two types of activities: (1) providing to Indians on reservations most of the services the rest of the population receives from State or local governments; and (2) serving as trustee in matters subject to Federal trusteeship authority.

The major services in the former category are in the area of education, health, welfare, and resource management. The first three of these services account for 75 percent of the BIA budget. They clearly are activities which can obtain stronger policy and technical support in HEW than they can in Interior.

While the trusteeship category is associated primarily with land management, by and large, BIA carries out its responsibilities largely independent of other Interior agencies. Many of the activities, for example, involve the welfare staff of BIA and the Department's legal staff on such matters as settlement of estates, guardianship of minors, and incompetents with respect to income from any source, assistance in family budget planning and other counseling of adult Indians. BIA relies on the Geological Survey to advise on mineral leasing and to supervise oil and gas production on Indian lands, and it relies on other Interior agencies, such as the land records staff of the Bureau of Land Management to provide the same services they would to any other agency or to the general public. There is no reason why these services cannot continue to be provided by the same agencies in the same way if BIA were to be transferred to HEW.

BIA now has extensive working relationships with HEW agencies and the transfer to HEW would ease the extensive problem of inter-agency coordination. Necessary coordination in the land and resource management agencies is less extensive and significant than that required in the areas of health, education, and welfare.

BIA also maintains continuous relationships with State education and welfare agencies whose primary Federal relationships are with HEW. The character of Indian welfare problems, frequently involving complex policies related to eligibility for assistance, has raised serious problems in Federal, State, and local relationships. HEW, because of its close working relations with State education and welfare agencies, could be of great assistance in facilitating improved intergovernmental relations in the area of Indian affairs.

Since this paper was to be concerned with training and employment, one might well wonder why the Department of Labor might not be a more logical site for an Indian training and employment program. The answer grows out of several complicating factors:

I. For a group of people with the diverse educational, cultural, health, housing, and employment problems of the Indian, the Federal agency bearing primary responsibility for Indian programs, must itself be diverse and broad. Few would deny that the Department of HEW is broader in scope than the Department of Labor.

II. Viewed in a system context, job training and employability for the Indian makes no sense unless it is seen in the framework of the fundamental educational, health, and welfare programs supervised by

HEW. Obviously, the Department of Labor and the Department of Housing and Urban Development will be consultant agencies, sharing programs and planning mutual objectives. Likewise, the Department of Commerce and other agencies concerned with economic development will similarly be called upon and be involved in relevant planning and programing.

III. Finally, the American Indian must be provided options from among which *he* will choose. But to bring him to the point of wise choice, all the services which HEW provides must first be available, *and in abundance*. To choose a life skill and way of earning a living is complicated to the non-Indian. But to the Indian, a wise choice can only follow after a sufficient program of education, counseling, and involvement, if he chooses, in the way of the non-Indian culture. Only the Department of HEW among the Federal agencies is philosophically equipped to perform this task.

For this suggested move of Federal responsibility to take place with a fair chance of success, however, there is a serious warning. Such a move should only take place after lengthy educational, clarifying discussions with a broad representation of Indian tribes and Indian leaders. A transfer of responsibility without such involvement could easily be viewed by Indians as a move paving the way for termination. Opposition would automatically follow. For another reason, however, this Indian involvement should follow. Most simply put, it is because it is about time this Government broke its unfortunate tradition of dealing with Indians as though they are simple-minded children. The American Indians number amongst them a normal proportion of leaders and thoughtful citizens. The longer we continue to plan *for* them, without their involvement, the longer we will continue to be confronted with well-earned suspicion and failure of programs.

