

INFORMATION TO USERS

This was produced from a copy of a document sent to us for microfilming. While the most advanced technological means to photograph and reproduce this document have been used, the quality is heavily dependent upon the quality of the material submitted.

The following explanation of techniques is provided to help you understand markings or notations which may appear on this reproduction.

1. The sign or "target" for pages apparently lacking from the document photographed is "Missing Page(s)". If it was possible to obtain the missing page(s) or section, they are spliced into the film along with adjacent pages. This may have necessitated cutting through an image and duplicating adjacent pages to assure you of complete continuity.
2. When an image on the film is obliterated with a round black mark it is an indication that the film inspector noticed either blurred copy because of movement during exposure, or duplicate copy. Unless we meant to delete copyrighted materials that should not have been filmed, you will find a good image of the page in the adjacent frame.
3. When a map, drawing or chart, etc., is part of the material being photographed the photographer has followed a definite method in "sectioning" the material. It is customary to begin filming at the upper left hand corner of a large sheet and to continue from left to right in equal sections with small overlaps. If necessary, sectioning is continued again—beginning below the first row and continuing on until complete.
4. For any illustrations that cannot be reproduced satisfactorily by xerography, photographic prints can be purchased at additional cost and tipped into your xerographic copy. Requests can be made to our Dissertations Customer Services Department.
5. Some pages in any document may have indistinct print. In all cases we have filmed the best available copy.

University
Microfilms
International

300 N. ZEEB ROAD, ANN ARBOR, MI 48106
18 BEDFORD ROW, LONDON WC1R 4EJ, ENGLAND

7921266

SPENCE, JAMES GERBHN

AN ANALYSIS OF THE IMPACT OF THE CETA, TITLE
I INSTITUTIONAL SKILL TRAINING PROGRAM IN
PINELLAS COUNTY, FLORIDA.

THE UNIVERSITY OF OKLAHOMA, PH.D., 1979

University
Microfilms
International

300 N. ZEEB ROAD, ANN ARBOR, MI 48106

THE UNIVERSITY OF OKLAHOMA
GRADUATE COLLEGE

AN ANALYSIS OF THE IMPACT OF THE CETA, TITLE I
INSTITUTIONAL SKILL TRAINING PROGRAM
IN PINELLAS COUNTY, FLORIDA

A DISSERTATION
SUBMITTED TO THE GRADUATE FACULTY
in partial fulfillment of the requirements for the
degree of
DOCTOR OF PHILOSOPHY

BY
JAMES GEROHN SPENCE

Norman, Oklahoma

1979

AN ANALYSIS OF THE IMPACT OF THE CETA, TITLE I
INSTITUTIONAL SKILL TRAINING PROGRAM
IN PINELLAS COUNTY, FLORIDA

APPROVED BY

Paul A. Brinker
W. R. Beach
Benjamin J. Taylor
H. V. Kondrath Jr.
Robert A. Ford

DISSERTATION COMMITTEE

ACKNOWLEDGMENTS

This effort is the culmination of graduate study which began at the University of Oklahoma a number of years ago. I would like to express my gratitude to the Division of Economics and the Graduate College for their patience and cooperation throughout this entire endeavor. I want to thank Dr. Alexander J. Kondonassis, Dr. W. Nelson Peach, Dr. Benjamin J. Taylor, and Dr. Robert A. Ford for serving on my dissertation committee. And, in particular, I want to express my appreciation to Dr. Paul A. Brinker, chairman of my committee, for his adept supervision and many words of encouragement.

It should be noted that financial support for the data gathering activities associated with this study was provided through two grants administered by the Florida Department of Education during the summers of 1976 and 1977. (Points of view or opinions contained in this work do not necessarily represent the official position or policy of the Florida Department of Education.) I am grateful for this financial support and would like to thank the Florida Department of Education, as well as Dr. Thomas D. Curtis of the University of South Florida for

his role in obtaining these grants. I also want to acknowledge the encouragement and many helpful comments provided by Dr. Curtis.

In concluding these statements, I would be remiss if I did not mention my appreciation for the secretarial skills contributed by Ms. Chris Henry. Ms. Kathy Pitts also assisted in the secretarial effort.

TABLE OF CONTENTS

	Page
LIST OF TABLES	vi
LIST OF ILLUSTRATIONS	viii
 Chapter	
I. INTRODUCTION	1
II. FEDERALLY FUNDED INSTITUTIONAL SKILL TRAINING PROGRAMS: A REVIEW OF HISTORICAL DEVELOPMENTS AND RECENT EVALUATION STUDIES . . .	18
III. PINELLAS COUNTY DELIVERY SYSTEM AND CETA EXPENDITURES	36
IV. COST OF THE PINELLAS COUNTY PROGRAM	54
V. PINELLAS COUNTY BENEFIT DATA . . .	75
VI. PINELLAS COUNTY BENEFIT ANALYSIS .	98
VII. BENEFIT-COST SUMMARY	137
VIII. SUMMARY OF CLIENT CHARACTERISTICS AND PARTICIPATION IN VOCATIONAL TRAINING PROGRAMS	142
IX. CONCLUSION	156
APPENDIX 1	167
APPENDIX 2	169
APPENDIX 3	173
APPENDIX 4	178
BIBLIOGRAPHY	180

LIST OF TABLES

TABLE	Page
1. CETA, Title I Expenditures for Pinellas County, July 1, 1975 - June 30, 1976, (Expenditures by Program Category for Each Organization)	39
2. CETA, Title I Expenditures for Pinellas County, July 1, 1975 - June 30, 1976, (Expenditures by Cost Category for Each Organization)	41
3. Pinellas County School Board CETA, Title I Budgets and Expenditures, July 1, 1975 - June 30, 1976, (Expenditures by Cost Category for Each Program Category)	45
4. Pinellas County School Board: ISTP Membership Data for Clients Terminated, July 1, 1975 - June 30, 1976	46
5. Pinellas County School Board ISTP: Summary of Client Characteristics, July 1, 1975 - June 30, 1976	51
6. Pinellas County ISTP: Enrollment at End of Each Month, June 30, 1975 - June 30, 1976, and Average Daily Enrollments for Months and Year	57
7. Training and CETA Termination Data for Clients Terminated from Pinellas County ISTP, July 1, 1975 - June 30, 1976	77

TABLE

Page

8.	Employment and Training Data for Clients Who Terminated from Pinellas County ISTP, July 1, 1975 - June 30, 1976, and Entered Related Occupations upon Termination from CETA	81
9.	Employment and Training Data for Clients Who Terminated from Pinellas County ISTP, July 1, 1975 - June 30, 1976, and Entered Unrelated Occupations upon Termination from CETA	87
10.	Estimated Benefit-Cost Ratios for Clients Who Terminated from Pinellas County ISTP, July 1, 1975 - June 30, 1976: Estimate of Earnings Foregone During Training not Included in Cost Estimate	138
11.	Estimated Benefit-Cost Ratios for Clients Who Terminated from Pinellas County ISTP, July 1, 1975 - June 30, 1976: Estimate of Earnings Foregone During Training Included in Cost Estimate	139
12.	Characteristics for 114 Trainees Terminated from Pinellas County ISTP, July 1, 1975 - June 30, 1976, by CETA Termination Category	144
13.	Program Membership for 114 Trainees Terminated from Pinellas County ISTP, July 1, 1975 - June 30, 1976, by CETA Termination Category	146
14.	Pinellas County School Board CETA, Title I Budget and Expenditures by Line Item, July 1, 1975 - June 30, 1976	168

LIST OF ILLUSTRATIONS

FIGURE	Page
1. Organizational Chart of the Pinellas County-St. Petersburg Manpower Consortium	38
2. Organizational Chart of Pinellas County School Board CETA Unit	44

AN ANALYSIS OF THE IMPACT OF THE CETA, TITLE I
INSTITUTIONAL SKILL TRAINING PROGRAM
IN PINELLAS COUNTY, FLORIDA

CHAPTER I

INTRODUCTION

In 1973 the Comprehensive Employment and Training Act (CETA) established a federal revenue-sharing system for manpower programs designed to meet local needs. The basic objective of this legislation is ". . . to provide job training and employment opportunities for economically disadvantaged, unemployed, and underemployed persons, . . ." ¹ Title I of the Act provides for the establishment of institutional skill training programs by local governments qualifying as prime sponsors.

Purpose of Study

The following statement appeared in the 1975 annual report of the Florida State Advisory Council on Vocational

¹Comprehensive Employment and Training Act of 1973, Statutes at Large 87, sec. 2, 839 (1973), U.S. Code, vol. 2, sec. 801 (1975).

and Technical Education:

Vocational and technical education in Florida is becoming increasingly involved in manpower programs through the Comprehensive Employment and Training Act (CETA); there has, however, been no systematic attempt made to assess the impact of CETA funding on vocational and technical education in Florida.²

It was in response to this problem that the present study was initiated. It is an attempt to assess the impact of the CETA, Title I Institutional Skill Training Program (ISTP) in Pinellas County, Florida, and provide a methodology which can be used in the analyses of similar programs in other locations.

The Pinellas County ISTP is primarily concerned with the development of specific vocational skills through classroom training at various county institutions. Some classes are composed solely of CETA trainees. In other cases, clients are enrolled in regular classes at vocational and technical schools when space is available.

Title I funds allocated to Pinellas County are channeled through the Pinellas County-St. Petersburg Manpower Consortium. Although both Pinellas County and the City of St. Petersburg are eligible to receive financial assistance as CETA prime sponsors (each with a population exceeding 100,000 persons), they elected to form a consortium for purposes of the Act.

²Fla., Department of Education, Advisory Council on Vocational and Technical Education, Annual Evaluation Report: Fiscal Year 1975 (Tallahassee, Fla., 1975), p. 4.

This procedure was adopted in order to address the labor market needs of Pinellas County in a comprehensive manner.³

Methodology and Scope

On-the-job vocational training programs are also administered through the Pinellas County-St. Petersburg Manpower Consortium under Title I of CETA. This study, however, will only examine the Title I ISTP effort in Pinellas County. Moreover, this analysis will focus on benefits and costs for clients terminated from the program during the year ended June 30, 1976.

Michael E. Borus and William R. Tash have noted four separate viewpoints for the examination of manpower programs: ". . . society as a whole, participants in the program, employers, and the government."⁴ Benefits and costs will be examined in this study from the societal point of view. This region of interest suggests concern with changes in aggregate income (production) and/or changes in personal income distribution resulting from the training program. The major effort of this analysis will be devoted to an examination of changes in the aggregate production of goods and services which have occurred or are expected to occur in the future due to the training of

³Pinellas County-St. Petersburg Manpower Consortium, "The Comprehensive Employment and Training Act (CETA) in Pinellas County," Clearwater, Fla., 1976, p. 2. (Mimeographed.)

⁴Michael E. Borus and William R. Tash, Measuring the Impact of Manpower Programs: A Primer (Ann Arbor, Mich.: Institute of Labor and Industrial Relations, The University of Michigan/Wayne State University, 1970), p. 7.

participants terminated within the July 1, 1975 - June 30, 1976, time period. An assessment of the personal characteristics of clients served by the program will also be included, however.

The time devoted to the collection of benefit and cost data for this study was extensive. These data alone, when presented clearly and concisely, should allow some assessment of the impact of the Pinellas County ISTP effort. Benefit-cost ratios will be computed to aid in the analysis and evaluation of the program. It is intended, however, that these ratios will only provide a starting point for an investigation of the benefit and cost data presented. Many assumptions will be required in order to make these calculations, and changes in these assumptions will yield different ratios.

Benefit-cost computations will also be restricted to direct and tangible benefits and costs. Direct benefits and costs are defined as ". . . those related closely to the main project objective, . . ." ⁵ It will be assumed that the primary project objective for the Pinellas County ISTP is increasing the productivity (income) of the clients involved in training. Although indirect (secondary) benefits and costs may accrue which are in the nature of by-products of the program, they will not be included in benefit-cost calculations. Intangible benefits and costs will also be excluded. These are, of

⁵Richard A. Musgrave and Peggy B. Musgrave, Public Finance in Theory and Practice (New York: McGraw-Hill, Inc., 1973), p. 142.

course, difficult to measure since they are not valued in the market.

In his book, Cost-Benefit Analysis and Manpower Programs, Steve L. Barsby summarizes some of the possible indirect ("non-measured") and intangible ("noneconomic") benefits of manpower programs and points out that they have been excluded from benefits estimated by researchers for practical reasons.

Researchers have followed the practice of estimating the economic benefits of government programs by calculating the increases in income that may be attributed to them. As a practical matter only the earnings of program participants are included. It is recognized, however, that this measure of benefits probably excludes significant unmeasured economic benefits. Some of these benefits may accrue to society (and to the individual) through reductions in crime, increased productivity because of improved health, increased earnings of the children (the intergeneration effect), increased nonwage job benefits, and increased productivity of other resources. Lack of good data for measuring these benefits has discouraged their inclusion in most studies, although often these types of benefits are recognized as existing and possibly quite large.

In addition to the often nonmeasured economic benefits noted above, significant benefits may exist that do not lend themselves to quantification. Several more obvious "noneconomic" benefits are: (1) consumption value of the training and education. (Many people enjoy the training and education process itself, and thus derive benefits simply from participating); (2) benefits society may receive from its citizens participating more in public affairs (assuming that those with more education and income do more of those things included under "good citizenship"); (3) the individual's satisfaction in being successful in his chosen vocation; (4) value of options to the trainee of further education and training made possible by participating in any one program; and (5) value of redistributing income in a more "equitable" manner.⁶

⁶ Steve L. Barsby, Cost-Benefit Analysis and Manpower Programs (Lexington, Mass.: D.C. Heath and Co., 1972), pp. 19-20.

Basically, the practice which Barsby indicates has been followed by other researchers will be utilized in this study. Benefit estimates will be based on training-related incremental wages for clients who have obtained, or are expected to obtain, jobs related to their CETA training. The possible existence of other benefits noted by Barsby (and also indirect and intangible costs not mentioned in this quotation from Barsby's book) represents an additional consideration in the overall evaluation of the program and further explains the limitations of the benefit-cost ratios which will be computed.

Pinellas County School Board records indicate that 151 clients terminated from the CETA, Title I Institutional Skill Training Program during the year ended June 30, 1976. Thirty-seven of these, however, were only involved in work evaluation and did not actually enter any type of vocational training. This leaves 114 trainees with the possibility of benefiting by obtaining employment related to their training.⁷ A great deal of effort has been devoted to examining post-training employment results for these 114 participants. In order to estimate program benefits, these results will be compared with information from CETA intake records regarding trainee wage rates in their last occupations prior to training. Wage rates for these last pre-CETA occupations will be adjusted upward to allow for the general upward trend in money wage rates

⁷It is possible that some type of benefits will accrue to the 37 clients only involved in work evaluation but an attempt will not be made to quantify any such benefits in this study.

during the time between pre-CETA and post-CETA employment before these comparisons are made.

Training-related incremental wages will be projected throughout the remaining average work life expectancy for those trainees with expected future benefits. It will, of course, be necessary to discount estimated training-related incremental earnings for later years to their present value on June 30, 1976, to make them comparable with costs incurred for the ISTP effort involving the 151 clients terminated during the year prior to that date.

Data concerning post-training employment results have been obtained from CETA termination records and interviews with trainees. Some of the 114 participants obtained employment at the time they terminated from the training program. Those who did not find employment upon termination from training were referred to a CETA unit of the Florida State Employment Service for help in locating jobs and were not officially terminated from CETA until a later date. In either case, the employment service CETA unit was responsible for completing termination records for participants.

Where employment was obtained upon termination from CETA (either at the time of training termination or at a later date), termination records indicate the type of job obtained, the beginning wage rate, and whether it was judged by the employment service to be training-related or training-unrelated. Some clients were terminated by the CETA unit

of the employment service without obtaining employment of any type. Even in the latter cases, these termination records are an important source of post-training employment information; the fact that the employment service was unable to verify or provide employment results must be considered an indication of the employability of these participants following CETA training.

In addition to the employment data obtained from CETA termination records, 35 of the 114 trainees were interviewed personally, or by telephone, and information was obtained regarding their employment and salary situations approximately one to two years after leaving the program. An attempt was made to interview all 33 clients whose termination records indicated they found initial post-CETA employment related to their training. Twenty-seven of these 33 trainees were located and interviewed. Data from interviews should provide a basis for longer run estimates of employment results.

CETA termination records were not available for 22 of the 114 clients, and 20 of these could also not be located for interviews. Training records for these 20 clients have been examined, however, and post-CETA results for other participants (from the group of 94) with similar training histories will provide a basis for imputing results for the group of 20.

Because of the societal point of view adopted, it should be emphasized that the possible elimination of future welfare

payments to CETA participants will not be considered in benefit estimates. Since these payments represent possible future transfers only, their payment or nonpayment will not directly affect future aggregate output and income. If the government point of view were adopted, these transfers would be an important consideration, but then future increases in output would only be important to the extent they resulted in increased government tax revenues. This is not to say that the government, as an instrument of society, is not concerned with changes in future aggregate economic activity. The "government viewpoint," however, requires the treatment of the government as a separate entity.

Before concluding this discussion of methodology and scope, a brief outline describing the manner in which the investigation will proceed in the following chapters is in order. The remainder of this chapter and Chapter II will be devoted to general background information. The relevance of human capital theory to the study will be explored in this chapter's final segment, while Chapter II will deal with the historical development of federal manpower programs and will also briefly review the findings of other researchers who have recently examined federally funded institutional skill training programs.

Chapter III will provide background information relating specifically to the Pinellas County ISTP by exploring the delivery system of the program. The explicit CETA expenditures

associated with the group of trainees examined in this study will also be noted in this chapter. Chapter IV will be devoted to estimating the economic cost of training this group of clients.

In Chapter V, trainee post-CETA employment results will be presented and compared with pre-CETA employment data. The data provided in Chapter V will be utilized in Chapter VI to estimate training-related economic benefits for the group of clients investigated. Chapter VII will consolidate the estimates of costs and benefits from Chapters IV and VI, respectively, into tables containing benefit-cost ratios.

Chapter VIII will include client characteristics, as well as a summary of their participation in the various types of vocational training available. This information will be provided for different CETA termination groups to enable the reader to obtain some insight with regard to client characteristics and types of training which led more or less frequently to economic benefits from the program.

Chapter IX will be the final chapter of the study and will contain the author's conclusions regarding the Pinellas County ISTP for the period examined. Factors related to these conclusions but not considered in benefit-cost calculations will be noted here. For example, some of the possible indirect and intangible benefits and costs of training will be discussed, and the economic environment at the times participants terminated from the program will be described. Some of the characteristics of the general

population in Pinellas County will also be presented and compared with trainee characteristics in this concluding chapter.

Relevance of Human Capital Theory to Study

Much has been written in recent years concerning the theory of human capital. This theory provides a foundation for government manpower programs which involve investments in human resources through skill training for various occupations. It can be argued that these programs are productive in terms of incremental future output or consumption and also provide an efficient method for reducing inequalities in personal income distribution.

The essence of the human capital concept was succinctly stated by Theodore W. Schultz in his presidential address to the 1960 meeting of the American Economic Association:

Although it is obvious that people acquire useful skills and knowledge, it is not obvious that these skills and knowledge are a form of capital, that this capital is in substantial part a product of deliberate investment, that it has grown in Western societies at a much faster rate than conventional (nonhuman) capital, and that its growth may well be the most distinctive feature of the economic system. It has been widely observed that increases in national output have been large compared with the increases of land, man-hours, and physical reproducible capital. Investment in human capital is probably the major explanation for this difference.⁸

As inferred by this quotation from Schultz's address, manpower investments can be viewed in much the same manner

⁸Theodore W. Schultz, "Investment in Human Capital," The American Economic Review 51 (Mar. 1961):1.

as investments in physical capital. Although some economists have expressed concern that people would find it distasteful to treat human beings, or their skills and knowledge, as capital, Schultz feels that restricting the concept of capital to material objects has contributed to the ". . . widely held popular belief that economics is materialistic" ⁹

Because human attributes can be treated as capital, however, it does not follow that the value of these attributes is dependent only upon their future productive capacity. Capital is not always defined as producer goods. Some forms of physical capital have present values based upon their abilities to provide future satisfaction directly through their use. Houses are a typical example. Schultz has been careful to point out that investments in schooling can enhance future consumption by providing satisfaction directly when skills and knowledge are utilized (for example, "increased capacity to enjoy good books") as well as through increases in future earnings and production. Both types of future consumption benefits represent reasons for investing in human capital. Schultz has also noted that there may be some current consumption benefits from schooling for those who obtain satisfaction from the learning process itself. ¹⁰

This current consumption value of training and education

⁹Theodore W. Schultz, The Economics of Education (London: Columbia University Press, 1963), p. x.

¹⁰Ibid., p. 8.

was listed among the possible "noneconomic" benefits mentioned by Steve L. Barsby in the quotation included previously in this chapter.

It should be stressed at this juncture that investments in human capital are not restricted to those for the development of skills and knowledge (education). Human capital expenditures are also made for improvements in health and mobility. The mobility category includes expenditures on job information, placement, and migration. In discussing the treatment of migration expenditures as investments in human capital, Schultz has explained that ". . . analytically a misplaced resource is equivalent to a less productive resource properly located."¹¹

This study is, of course, primarily concerned with the education or training category of human capital investments. Nevertheless, investments in human capital through expenditures for mobility are also involved. If we are to consider incremental earnings of ISTP participants as benefits, the cost of resources devoted to the placement of clients in post-CETA jobs should also be considered a partial source of these benefits. It would be difficult to separate the incremental earnings provided by these investments in mobility from those resulting from educational (training) expenditures. As indicated previously, the Florida State Employment Service devoted

¹¹Theodore W. Schultz, "Reflections on Investment in Man," The Journal of Political Economy 70 (Supplement: Oct. 1962):2.

resources to the ISTP effort in Pinellas County through a special CETA unit involved in counselling and placing program participants. Some Pinellas County School Board personnel were also involved in placement activities.

Although expenditures for health improvements are not a part of the Pinellas County ISTP effort, it should be pointed out that benefits from ISTP investments in training and mobility have probably been affected by expenditures elsewhere for health improvements. Longer life expectancies, for example, have provided the opportunity for benefits from training and mobility expenditures to accrue over a longer time period. The future consumption component of these human capital investments should certainly be enhanced by the longer life expectancies. The trend toward earlier retirements, however, has prevented an extension of benefits expected to result from incremental earnings since these must be based on remaining average work life expectancies. Nevertheless, it is possible that without longer life expectancies workers would now be retiring at even earlier ages.

Burton A. Weisbrod has emphasized the importance of the interdependence of different types of human capital investments as well as the interdependence between human and non-human capital investments. In addition to noting the effect of health improvement expenditures on the returns from human capital investments in education, Weisbrod points out that, "Investment in education expands and extends knowledge,

leading to advances which raise productivity and improve health."¹²

It is not the purpose of this study to measure changes in the distribution of personal income resulting from the Pinellas County ISTP. The CETA legislation which led to the program's creation, however, was designed to directly benefit that segment of our population described as "economically disadvantaged." It should therefore be emphasized that human capital theory, to some degree, provides an explanation for existing income inequalities and a basis for arguments that programs of this type may be capable of reducing these income inequalities.

Campbell R. McConnell has summarized the viewpoint of human capital proponents regarding this issue: "According to human capital theory, noncompeting groups--and therefore wage differentials--exist to a large extent because of differing amounts of investment in human capital."¹³ McConnell also notes that ". . ., both native capacity and the opportunity to train oneself are unequally distributed, causing the wage differentials of noncompeting groups to persist."¹⁴

¹²Burton A. Weisbrod, "Education and Investment in Human Capital," The Journal of Political Economy 70 (Supplement: Oct. 1962):106.

¹³Campbell R. McConnell, Economics: Principles, Problems, and Policies, 7th ed. (New York: McGraw-Hill, Inc., 1978), p. 648.

¹⁴*Ibid.*, p. 647.

The fact that the market system may fail to provide equal opportunities for training or education and therefore lead to wage differentials and income inequalities may be an argument for government action to eliminate inequities in the economic system. It has also been argued, however, that the market system will not provide the optimum (efficient) resource allocation for the development of human resources because of the financial inability of many individuals to invest in their own education (training) and the inability of employers, or future employers, to restrict benefits to themselves.

Both the equity and the efficiency arguments have, of course, been used to justify government participation in the area of human resource development via the public education system. John Kenneth Galbraith apparently did not believe that this effort was sufficient to provide the optimum investment in "personal capital" when he wrote the Affluent Society which was published in 1958. He included the following comments:

The same forces which bring us our plentitude of private goods and leave us poverty-stricken in our public services also act to distort the distribution of investment as between ordinary material capital and what we may denote as the personal capital of the country. This distortion has far-reaching effects. One of them is to impair the production of private goods themselves.¹⁵

¹⁵John Kenneth Galbraith, The Affluent Society (New York: The New American Library, Inc., 1958), p. 212.

Proclamations of this type by well-known economists probably helped to bring about the growth in public manpower programs which occurred in the 1960s and has continued in the 1970s. The development of these programs will be discussed in the following chapter.

CHAPTER II

FEDERALLY FUNDED INSTITUTIONAL SKILL TRAINING PROGRAMS: A REVIEW OF HISTORICAL DEVELOPMENTS AND RECENT EVALUATION STUDIES

This chapter is included to provide the reader with a historical perspective regarding federally funded institutional skill training programs (ISTP's) and to expose him to findings of other researchers who have examined programs of this type. Before proceeding, two methodological notations are in order. First, it would be difficult to provide the desired historical perspective by examining the development of ISTP's alone. Therefore, the first part of this chapter will contain a summary of how federal manpower programs in general have evolved. Second, an exhaustive review of ISTP evaluation studies (even those completed recently) is not possible here. The second part of this chapter will, however, include a discussion of two recent efforts to evaluate ISTP (classroom training) results for participants from a wide range of geographical areas.

Manpower Program Development

When discussing the origins of present day manpower programs, authors usually point to federal legislation enacted in the early 1960s. The following statement by William Mirengoff and Lester Rindler is included in their published report dealing with the Comprehensive Employment and Training Act of 1973: "The antecedents of manpower programs can be traced to the 1930s and earlier, but the current emphasis dates from the Area Redevelopment Act of 1961 and the Manpower Development and Training Act of 1962 (MDTA)."¹

The federal government was involved in several types of earlier manpower efforts, including temporary job creation (emphasized during the 1930s) and matching grants to the states for vocational training in specific occupations (the Smith-Hughes Act of 1917).² Although the system of state-federal public employment services (established during the 1930s) may also be considered a part of the federal government's earlier manpower policies, only training or direct job creation efforts are generally referred to as manpower "programs."³

¹William Mirengoff and Lester Rindler, The Comprehensive Employment and Training Act: Impact on People, Places, Programs (Washington, D.C.: National Academy of Sciences, 1976), p. 1.

²Garth L. Mangum, Employability, Employment, and Income (Salt Lake City, Utah: Olympus Publishing Company, 1976), p. 44.

³Dave M. O'Neill, The Federal Government and Manpower (Washington, D.C.: American Enterprise Institute for Public Policy Research, 1973), p. 61.

It was through the Area Redevelopment Act of 1961 (ARA) that the forerunners of present day institutional skill training programs were initiated by the federal government. These programs were originally designed to provide training for technologically unemployed workers in depressed areas of the country. When technological unemployment did not increase to the extent expected in the early 1960s, the Manpower Development and Training Act of 1962 (MDTA) expanded the target population for these training programs to include ". . . groups discriminated against and persons who were poorly equipped to function successfully in the free labor market."⁴ The MDTA (and its amendments) also added basic education courses for trainees who lacked the proper preparation and provided an alternative to institutional skill training in the form of on-the-job training (OJT) programs.⁵

In addition to the Area Redevelopment Act of 1961 and the Manpower Development and Training Act of 1962, Garth L. Mangum also credits the Vocational Education Act of 1963, the Civil Rights Act (Title VII) of 1964, and the Economic Opportunity Act of 1964 with putting ". . . in place the basic legislation and the basic tools of the manpower policies of the 1960s."⁶ Referring to the Vocational Education Act of 1963,

⁴Paul A. Brinker and Joseph J. Klos, Poverty, Manpower, and Social Security (Austin, Tex.: Lone Star Publishing, Inc., 1976), p. 294.

⁵Ibid., pp. 295-96.

⁶Mangum, Employability, p. 46.

Mangum observes a change in emphasis with regard to federal vocational education legislation: "Not the skill needs of the labor market but the employment needs of people was the new focus. Rather than occupational categories, the Act prescribed population groups to be served."⁷ These comments, to a great extent, describe the focus of federal manpower programs in general since the early 1960s. This, of course, does not mean that manpower programs since the early 1960s have ignored the skill needs of the labor market when attempting to serve the needs of economically disadvantaged groups.

Much of the emphasis of the Economic Opportunity Act of 1964 (EOA) was placed on solving the employment problems of young people. The Neighborhood Youth Corps and the Job Corps programs were both created as a result of this legislation. In addition, the EOA established a work experience and training program for welfare recipients.⁸ Welfare recipients (through the Aid for Dependent Children program) were also the target population group for the Work Incentive Program (WIN) which was instituted in 1967 by amendments to Title IV of the Social Security Act.⁹

The focus of federal manpower programs on the employment needs of people has continued throughout the 1960s and thus far into the 1970s. Mirengoff and Rindler, however, have

⁷Ibid., p. 44.

⁸Ibid., pp. 45-46.

⁹O'Neill, The Federal Government and Manpower, p. 6.

suggested that the early 1970s did bring about some shift in emphasis from efforts to solve labor market structural problems (through training or work experience programs) to more counter-cyclical (direct job creation) programs. They point to the Emergency Employment Act of 1971 as the beginning of this change in focus and to the change in the economic climate as the primary cause.¹⁰ Although counter-cyclical programs have indeed received more attention during the 1970s, this does not imply that manpower training programs have received less. The increased emphasis on direct job creation type programs has added to the overall manpower effort.

One result of the acceleration in manpower legislation in the 1960s was an increase in the number of government agencies dealing with manpower programs of different types. Paul A. Brinker and Joseph J. Klos have enumerated those government agencies involved in a 1967 attempt to form a coordinated manpower system (the Cooperative Area Manpower Planning System--CAMPS):

The multiplicity of agencies dealing with manpower programs caused seven federal agencies in 1967 to sign an agreement to create a workable and comprehensive manpower planning system. The seven agencies involved were the Department of Labor, Welfare Administration, Vocational Rehabilitation, Vocational Education, the Office of Economic Opportunity, the Economic Development Administration, and the Department of Housing and Urban Development. Within a year, four other Federal agencies had joined the system: Bureau of Indian Affairs, the

¹⁰Mirengoff and Rindler, The Comprehensive Employment and Training Act, p. 1..

Water Pollution Control Administration, the Department of Agriculture, and the Civil Service Commission.¹¹

The CAMPS program was not successful in providing the comprehensive manpower planning system desired, and the problem appeared even more critical at the end of the 1960s. The status of the federal manpower effort at that time is described in the following comments by Mirengoff and Rindler:

By the end of the 1960s, there were more than 17 programs, each with its own legislative and organizational base, funding source, and regulations. Out of these so-called categorical programs flowed 10,000 or more specific manpower projects, often several in the same community competing for the same clientele and resources. These programs generally were conducted through public and nonpublic agencies but not through the local governments themselves.¹²

At the same time that coordination of manpower efforts had become a major concern because of the number of government agencies and programs involved, it was also being argued that manpower policies were not adaptable to local needs because of too much federal control through categorical programs with specific designs and standards. Congress attempted to provide more flexibility at the community and state levels through amendments to the Economic Opportunity Act in 1967 and the MDTA in 1968. It was in December of 1973, however, when legislation was passed which more effectively provided

¹¹Brinker and Klos, Poverty, p. 336.

¹²Mirengoff and Rindler, The Comprehensive Employment and Training Act, p. 2.

for decentralization and decategorization of federal manpower programs.¹³

The Comprehensive Employment and Training Act of 1973 (CETA) was also designed to allow more effective coordination at the federal level (by the Department of Labor). Programs previously administered under authority of the MDTA (for example, on-the-job and institutional skill training programs), the Economic Opportunity Act (the Job Corps program), and the Emergency Employment Act (public service employment programs) were consolidated under CETA. When enacted in 1973, CETA had six different titles, but that number was expanded to eight through amendments in 1974 and 1977.

Title I of CETA allows the greatest degree of flexibility at the state and local levels by authorizing federal funds for "comprehensive manpower services." Local governments with populations of 100,000 or more may qualify as prime sponsors and become eligible for funding under this title. State governments may serve as prime sponsors for other areas unable to qualify separately.

Although Title I contains a list of different programs and activities which may be provided, prime sponsors are not limited to these specific examples. At the same time, state and local governments are not allowed complete discretion when designing Title I programs. The Secretary of Labor must approve each prime sponsor's comprehensive manpower plan, and

¹³Mangum, Employability, pp. 68-69.

that plan must contain assurances that, "to the maximum extent feasible," those who are most in need will be served.¹⁴

Thus far, most Title I funds have been utilized by prime sponsors to operate institutional skill (classroom) training, on-the-job training, and work experience programs. Only a small percentage of Title I funds has been devoted to public service employment programs.

CETA public service employment programs have been funded primarily through Titles II and VI of the Act. Title II was included in the original CETA legislation and provides for transitional public service employment in areas with substantial rates of unemployment. Title VI was added to CETA by the Emergency Jobs and Unemployment Assistance Act of 1974 to provide public service jobs in all areas of the country as an emergency counter-cyclical measure.

Title III of CETA authorizes federally supervised manpower services such as training, employment, and job placement for special population groups (youth, older workers, Indians, etc.). Title IV provides for continuation of the Job Corps program, and Title V established a National Commission for Manpower Policy. Title VII (previously Title VI in the original Act) contains general provisions which are applicable to all CETA programs and activities. Title VIII was added to CETA through passage of the Youth Employment and Demonstration

¹⁴ Comprehensive Employment and Training Act of 1973, Statutes at Large 87, secs. 101-6, 840-46 (1973), U.S. Code, vol. 2, secs. 811-16 (1975).

Projects Act of 1977 and established the Young Adult Conservation Corps. Participants in this program are employed in useful conservation efforts or other public projects on public lands and waters.¹⁵

As indicated in Chapter I, the Pinellas County ISTP was operated under the authority of CETA, Title I during the July 1, 1975 - June 30, 1976, time period examined in this study. The discussion of CETA's enactment and provisions therefore completes, with one exception, the historical background section of this chapter. The one remaining historical detail to be noted here is that an institutional skill training program was administered in Pinellas County under authority of the MDTA prior to the effective date for CETA legislation.

Review of Recent ISTP Evaluation Studies

In general, researchers have attempted to evaluate federally funded institutional skill training programs in two respects. They have examined the efficiencies of programs, usually through computations of benefit-cost ratios, incremental training-related earnings, or costs per training-related job placement. And they have investigated the degree to which these programs have served specific population groups, by examining client characteristics. Particular attention, in this regard, has been devoted to determining if those most in

¹⁵U.S., Department of Labor and Department of Health, Education, and Welfare, Employment and Training Report of the President: 1978 (Washington, D.C.: Government Printing Office, 1978), pp. 39-41.

need have been served. It is possible to make a program more efficient, from a benefit-cost viewpoint, by engaging in a practice referred to as "creaming" whereby clients with greater potentials for benefits (but perhaps less in need of training) are selected. For the two studies discussed in this section, emphasis will be placed on efficiency measures which were computed.

Garth L. Mangum and John Walsh reviewed studies of ARA and MDTA training programs in their book, A Decade of Manpower Development and Training, published in 1973. Although noting the generally favorable evidence with regard to MDTA programs at that time, they emphasized the inconclusive nature of this evidence:

MDTA's worth remains unproved after a decade of experience, not because it has never been evaluated but because none of the existing evaluations--nor all of them in aggregate--have proved the program's worth beyond logical challenge.¹⁶

In their discussion of early manpower program evaluation studies, Mangum and Walsh pointed out some of the methodological shortcomings of these investigations and stressed the need for longer-term data:

Since no study of substantial size has ever produced an acceptable control group for any manpower program evaluation, it is only a matter of supposition that this can be done. Yet uncertainty will end only when such a study is made, accompanied by long-term, longitudinal follow-up.¹⁷

¹⁶Garth L. Mangum and John Walsh, A Decade of Manpower Development and Training (Salt Lake City, Utah: Olympus Publishing Company, 1973), p. 19.

¹⁷Ibid., p. 23.

In an attempt to provide an evaluation similar to that suggested in these comments by Mangum and Walsh, the Employment and Training Administration of the Department of Labor has entered into a contract with Westat, Inc., a private research firm, of Rockville, Maryland. The objective is to obtain a continuous longitudinal manpower survey (CLMS) for CETA programs of different types, including institutional skill (classroom) training. The current plan is that three follow-up interviews will be conducted with trainees, in addition to the initial interviews, which are held during the first three months that clients are enrolled. The three follow-up interviews are to come approximately 8, 18, and 35 months after CETA entry.¹⁸

The Bureau of the Census is involved in the CLMS nationwide sampling effort and is also to provide data for a control (comparison) group from its Current Population Survey (CPS). At the time the first CLMS follow-up report was prepared (in July 1978), the control group had not been developed, however, and therefore training outcomes included in this report only indicate the gross impact of programs (for example, changes in earnings of participants between their pre-CETA and post-CETA time periods). Later CLMS follow-up reports will

¹⁸Westat, Inc., "Continuous Longitudinal Manpower Survey: Follow-up Report No. 1," prepared for Office of Program Evaluation, Employment and Training Administration, U.S. Department of Labor, Rockville, Md., 1978, p. 3-3. (Mimeographed.)

show net impact by comparing earnings changes of trainees with those in the control group who did not participate in training.¹⁹

The first CLMS follow-up report (July 1978) contains characteristics for ISTP trainees who entered CETA during the January - June 1975 time period and characteristics, as well as pre-program versus post-program experiences, for trainees who entered during this period and terminated (either complete or incomplete) at least three months before the second follow-up interviews were conducted. These second follow-up interviews were held during the July - December 1976 time period, approximately 18 months after the participants entered CETA. An estimated 73,700 classroom training (ISTP) participants had been out of the CETA program for at least three months at the times of these second follow-up interviews. Characteristics and pre-program versus post-program labor market experiences are also presented in the first CLMS follow-up report for a smaller, subgroup of 47,600 ISTP trainees who had been terminated from CETA for at least 12 months when second follow-up interviews were conducted.²⁰

It should be noted that pre-CETA versus post-CETA comparisons for these large groups of participants are based on interviews with a smaller number of trainees who are part of a sample group. It should also be pointed out that the

¹⁹Ibid., pp. 1-13, 2-5, 2-6.

²⁰Ibid., pp. 7-44, 7-47.

ISTP participants examined 12 months or more after termination were only involved in the training program for a relatively short period of time, a maximum of six months. Those who were interviewed at least three months after termination could have been in the training program as long as 15 months.²¹ (It should be recalled that second follow-up interviews were conducted 18 months following CETA entry.)

For the estimated 73,700 classroom training clients who were terminated at least three months when second follow-up interviews were held, pre-CETA versus post-CETA changes in labor market data are computed in the CLMS for two different intervals. First, changes between the quarter prior to CETA entry and the first quarter after CETA termination are calculated; then, changes from the fourth quarter preceding entry to the first quarter after termination are computed. Changes noted in the report for the first period mentioned are as follows: An increase in average annualized earnings of \$1,520.00; an increase in average hourly wages of \$.25 (for those who were employed); and an increase in average percent of time employed of 19 percentage points. Changes for the latter interval are as follows: An increase in average annualized earnings of \$450.00; an increase in average hourly wages of \$.29 (for those who were employed); and an increase in average percent of time employed of one percentage point.²²

²¹Ibid., pp. 1-10, 3-3, 3-4.

²²Ibid., p. 7-44.

For the estimated 47,600 classroom training clients who were terminated at least 12 months when second follow-up interviews were conducted, pre-CETA versus post-CETA labor market data changes are computed between the first quarter preceding CETA entry and the fourth quarter following CETA termination and also between the fourth quarter before CETA entry and the fourth quarter after CETA termination. Changes reported for the first of these two intervals are as follows: An increase in average annualized earnings of \$1,860.00; an increase in average hourly wages of \$.38 (for those employed); and an increase in average percent of time employed of 27 percentage points. For the second period specified, the changes are as follows: An increase in average annualized earnings of \$740.00; an increase in average hourly wages of \$.41 (for those employed); and an increase in average percent of time employed of eight percentage points.²³

The average annualized earnings and average percent of time employed data show more impressive results from classroom training (for both groups of clients) when the quarter immediately preceding CETA entry is used for comparison with the relevant post-CETA time periods. As indicated in the CLMS report, this was to be expected since the clients considered had a rather low employment rate just before entry.²⁴

The changes in average hourly wages show more "impressive" results for the program (for both groups) when the fourth

²³Ibid., p. 7-47.

²⁴Ibid., p. 3.

quarter preceding CETA entry is used for comparison with post-CETA experiences. This is also not surprising since the calculations of average hourly wages only consider those participants employed. And, as noted in the report, wage rates in general advanced during the time spans involved. Moreover, higher wage rates during later time periods could be expected for participants, even if they had not entered training.²⁵

The fact that no adjustments were made for this general upward trend in wage rates is one qualification mentioned in the report with regard to the data presented. This problem should be eliminated when a proper control group is available for comparison in the future. Wage rate changes for a valid control group should reflect more correctly (than a general wage rate index) the changes which would have occurred for clients without the benefit of training. Although the general increase in wage rates during the pre-CETA to post-CETA intervals appears to provide an upward bias for classroom training (ISTP) results shown in the CLMS study, the change in the nation's rate of unemployment may have prevented more favorable outcomes:

The improvement was accomplished despite more difficult economic conditions in the postprogram period which may have restrained the gain. (The national unemployment rate in the preprogram period was a bit over 5%, while in the postprogram period it averaged around 8%.)²⁶

²⁵Ibid., p. 3-8.

²⁶Ibid., pp. 1-2.

The focus of this investigation will shift at this point to a study of CETA programs prepared in 1978 by the United States General Accounting Office (GAO). This report to the Congress by the Comptroller General is the fourth and final report of a series dealing with the Department of Labor's implementation of CETA, and is entitled, "Job Training Programs Need More Effective Management."

The GAO study utilizes a sample of over 2,000 CETA classroom training clients from 12 prime sponsors in six different states (California, Illinois, Massachusetts, Minnesota, Nevada, and Wisconsin). The participants examined all terminated from ISTP's during the 1976 fiscal year.²⁷ Basically, program results are measured in the study by post-CETA placement rates, six-month retention rates, and costs per placement and per training-related placement. These results are included for each of the 12 prime sponsors, as well as for the entire sample. A control group is not used.

The percentage of clients obtaining training-related employment upon termination ranged from a high of 48 percent for Boston, Massachusetts, to a low of zero percent in Lake County, Illinois, where 88 clients participated in classroom training, and none obtained training-related jobs. A total of 740 participants from the group of 2,043 examined at all locations found training-related employment (36 percent).

²⁷U.S., General Accounting Office, Report to the Congress: Job Training Programs Need More Effective Management, July 7, 1978, p. i.

The percentage of clients retaining training-related jobs after six months ranged from a high of 30 percent for the Hampden County, Massachusetts, Consortium to a low of zero percent for Lake County, Illinois. (A notation in the GAO report indicates that, "Lake County primarily operated a prevocational training program."²⁸) In all, 424 participants from the group of 2,043 retained training-related positions after six months (21 percent).

The cost per training-related placement ranged from a high of \$27,567.00 for the Las Vegas-Clark County, Nevada, Consortium to a low of \$3,658.00 for the Madison-Dane County, Wisconsin, Consortium. (No training-related placement cost was calculated for Lake County, Illinois.) The average cost per training-related placement at all 12 locations was \$10,157.00.²⁹ Cost calculations include trainee allowances, as well as costs of facilities, instruction, counseling, administration, and assessment services.³⁰

The Comptroller General's report also included comments regarding the reasons why CETA classroom training was not more successful. One of these comments stressed the need for better labor market surveys in order to determine occupations with good job prospects:

CETA requires that classroom training be designed for occupations in which skill shortages exist, and that

²⁸Ibid., p. 50.

²⁹Ibid., pp. 49-50.

³⁰Ibid., pp. 9-10.

participants not be referred to training unless the prime sponsor has determined that reasonable employment opportunities exist in the occupation for which they are being trained. However, some prime sponsors continued offering courses with unfavorable labor market demand and poor past performance.³¹

³¹Ibid., p. 15.

CHAPTER III

PINELLAS COUNTY DELIVERY SYSTEM AND CETA EXPENDITURES

The first step in examining the economic cost (from a societal point of view) of the Pinellas County Institutional Skill Training Program (ISTP) is to determine the inputs provided. This chapter, by explaining the delivery system of the Pinellas County program, will disclose the different organizations involved in the administration of the program, their purposes, and their relationship to each other. The CETA expenditures reported by these organizations will also be noted. The economic cost of all resources contributed to the Pinellas County ISTP effort will not be analyzed until Chapter IV, however. It must be emphasized that the following description of the delivery system is for the July 1, 1975 - June 30, 1976, time period.

As indicated previously in Chapter I, CETA, Title I funds allocated to Pinellas County are channeled through the Pinellas County-St. Petersburg Manpower Consortium. Primary administrative responsibility for manpower programs was delegated

to the Board of County Commissioners by a consortium agreement, which was executed in April 1974. Both the Chairperson of the Board of County Commissioners and the Mayor of the City of St. Petersburg, however, must approve all grant documents from the Department of Labor and the State of Florida. The county and the city also share equally the legal responsibilities associated with the execution of such documents.

Consortium (manpower planning unit) employees, although paid by grant funds, are employees of the county.

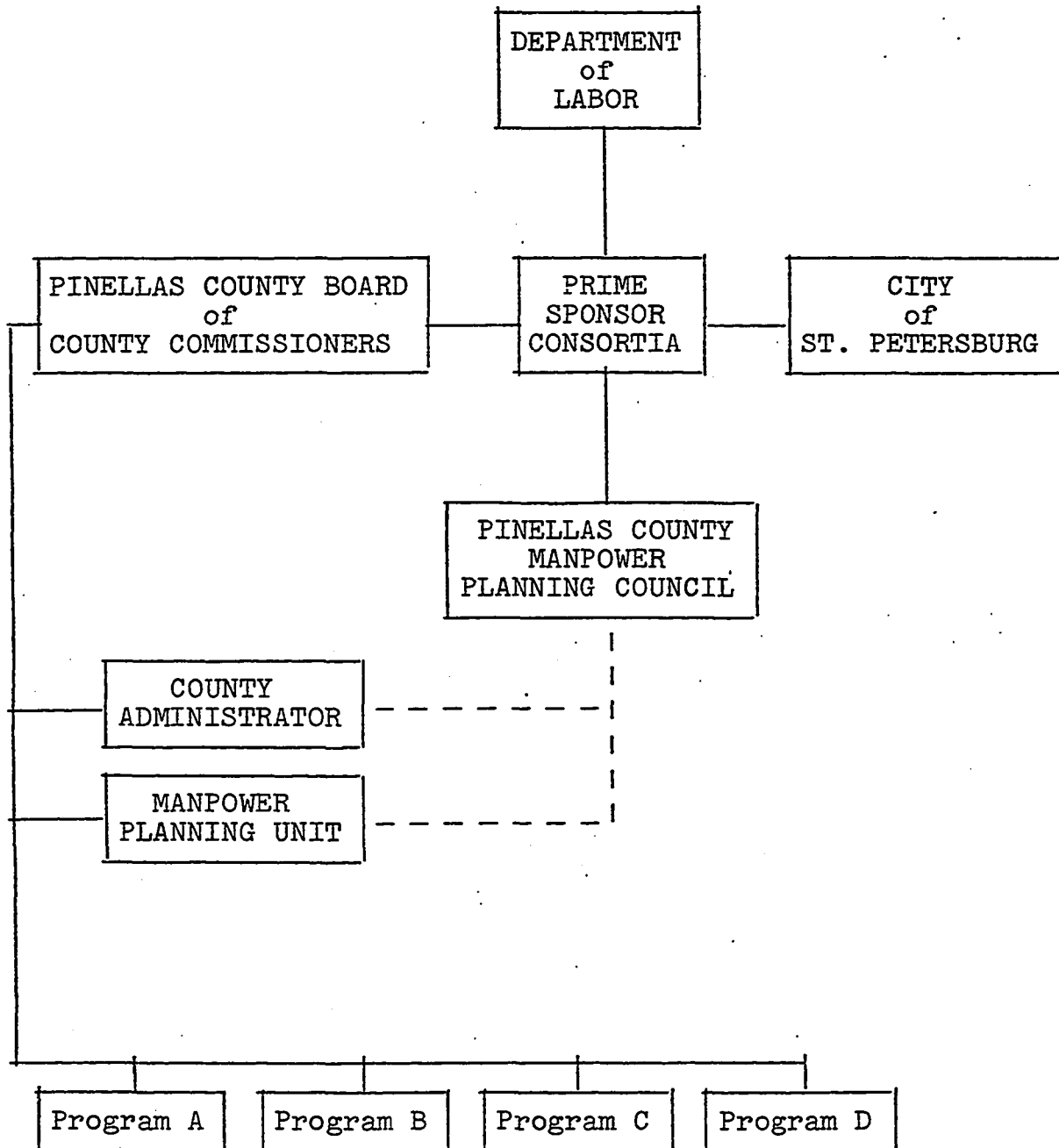
A twenty member advisory council is appointed by the Board of County Commissioners and meets monthly to discuss recommendations to assist the consortium in developing a "responsive plan." It should be noted that the consortium is involved in the administration of programs funded through several different titles of the Comprehensive Employment and Training Act.¹ An organizational chart illustrating the administrative relationships mentioned above is included as Figure 1.

During the year ended June 30, 1976, the consortium operated CETA, Title I programs under a delivery system composed of coordinated but separate public and non-profit organizations. The consortium awarded grants to the public agencies involved and arranged delivery agent contracts with the non-profit entities. Table 1 contains a breakdown of CETA, Title I

¹Pinellas County-St. Petersburg Manpower Consortium, "The Comprehensive Employment and Training Act (CETA) in Pinellas County," Clearwater, Fla., 1976, pp. 2-3. (Mimeographed.)

FIGURE 1

ORGANIZATIONAL CHART OF THE PINELLAS COUNTY-ST. PETERSBURG MANPOWER CONSORTIUM



Source: Pinellas County-St. Petersburg Manpower Consortium, "FY 1976 Comprehensive Manpower Plan," Clearwater, Fla., 1975, p. 43. (Mimeographed.)

TABLE 1

CETA, TITLE I EXPENDITURES FOR PINELLAS
COUNTY, JULY 1, 1975 - JUNE 30, 1976,
(Expenditures by Program Category
for Each Organization)^a

Organization	Total	Classroom Training	On-the-Job Training	Work Experience	Services to Participants	Vocational Education Funds ^b
Pinellas County Opportunity Council, Inc.	\$ 59,084.55				\$ 59,084.55	
Florida State Employment Service	161,134.00				161,134.00	
Pinellas County School Board	1,120,243.07	\$786,935.00		\$236,573.00		\$96,735.07
On-the-Job Training Program	106,402.51	18,742.37	\$87,660.14			
Opportunities Industrialization Center	92,204.10	48,044.26			44,159.84	
Pinellas Municipal Work Experience Program	416,738.26			416,738.26		
Gulf Coast Carpenter's Union Program	16,479.50	16,479.50				
Pinellas-St. Petersburg Manpower Planning Unit	39,526.04	18,340.08	1,857.73	13,755.06	5,573.17	
Total	2,011,812.03	888,541.21	89,517.87	667,066.32	269,951.56	96,735.07

Source: Compiled from U.S. Department of Labor CETA Financial Status Reports and accounting working papers supplied by the Pinellas County School Board and the Pinellas County-St. Petersburg Manpower Consortium.

^aAll figures include encumbrances as well as actual cash outlays.

^bSection 112, CETA, Title I funds.

expenditures by program category for each organization for the July 1, 1975 - June 30, 1976, time period. Table 2 provides a breakdown of Title I expenditures by cost category for each of these organizations for the same time period.

In addition to "regular" Title I funds, \$96,735.07 of "Section 112" (of CETA, Title I) funds for vocational education were also expended in Pinellas County during the year ended June 30, 1976. As indicated in Table 1, this amount was spent for programs at the Pinellas County School Board. Although reported as a separate program category expenditure, these funds were dispensed as part of the classroom training (ISTP) effort by the school board.

If Section 112 monies are included, the total CETA, Title I expenditure for the year is \$2,011,812.03. And if Section 112 expenses are added to regular classroom training expenditures, the sum is \$985,276.28, which is 49 percent of the total. This is the program category of primary importance in this investigation. More specifically, however, this study is concerned with the classroom training program (ISTP) administered by the Pinellas County School Board. This program was responsible for the approximately 90 percent of the classroom training expenditures, a total of \$883,670.07 (including the \$96,735.07 of Section 112 funds).

As noted in Table 1, the school board also expended \$236,573.00 on work experience programs. These programs are intended to provide job training in a very general fashion but are mainly a stopgap measure to provide employment and

TABLE 2

CETA, TITLE I EXPENDITURES FOR PINELLAS
COUNTY, JULY 1, 1975 - JUNE 30, 1976,
(Expenditures by Cost Category
for Each Organization)^a

Organization	Administration	Allowances to Clients	Wages to Clients	Fringe Benefits to Clients	Training Costs	Services to Clients
Pinellas County Opportunity Council, Inc.	\$ 17,216.84					\$ 41,867.71
Florida State Employment Service	27,260.00					133,874.00
Pinellas County School Board ^b	130,346.00	\$532,538.00	\$155,594.00	\$ 6,933.00	\$153,331.17	141,500.90
On-the-Job Training Program	11,181.94				80,696.87	14,523.70
Opportunities Industrialization Center	24,021.84	19,069.38			16,963.96	32,148.92
Pinellas Municipal Work Experience Program	7,308.00		380,566.09	28,864.17		
Gulf Coast Carpenter's Union Program					16,479.50	
Pinellas-St. Petersburg Manpower Planning Unit	39,526.04					
Total ^b	256,860.66	551,607.38	536,160.09	35,797.17	267,471.50	363,915.23

Source: Compiled from U.S. Department of Labor CETA Financial Status Reports and accounting working papers supplied by the Pinellas County School Board and the Pinellas County-St. Petersburg Manpower Consortium.

Note: The column indicating total expenditures for each organization has been omitted here; these totals are the same as those shown for each organization in Table 1.

^aAll figures include encumbrances as well as actual cash outlays.

^bThese figures include Section 112-Vocational Education funds expended.

income for particular segments of the population (in the case of school board programs, economically disadvantaged youth). These expenditures will not be evaluated in this study.

Expenditures by three other organizations included in Tables 1 and 2 were related to the school board's ISTP effort, however, and the inputs represented by these expenditures must be considered in the evaluation process. The other three organizations involved were the Pinellas County Opportunity Council, the Florida State Employment Service, and the Pinellas County-St. Petersburg Manpower Planning Unit.

The Pinellas County Opportunity Council, Inc., a private, non-profit community action agency, provided ". . . outreach (recruitment), coaching and follow-up services . . . in behalf of and coordinated with the other manpower programs of the Consortium."² The Florida State Employment Service provided ". . . intake assessment, orientation, job counseling, testing, selection and referral to training, job development and direct placement services to participants of all manpower programs of the Consortium."³ The Pinellas County-St. Petersburg Manpower Planning Unit was, of course, involved in the administration of the school board program and was, in particular, responsible for coordinating the program with the Department of Labor (see Figure 1).

²Ibid., p. 4.

³Ibid., p. 4-5.

To facilitate the analysis of the school board's role in the ISTP delivery system in Pinellas County, an organizational chart of the school board CETA unit is presented as Figure 2. School board classroom training expenditures by cost category are also shown separately from work experience expenditures in Table 3. (Again, Section 112 funds expended have been included under classroom training.)

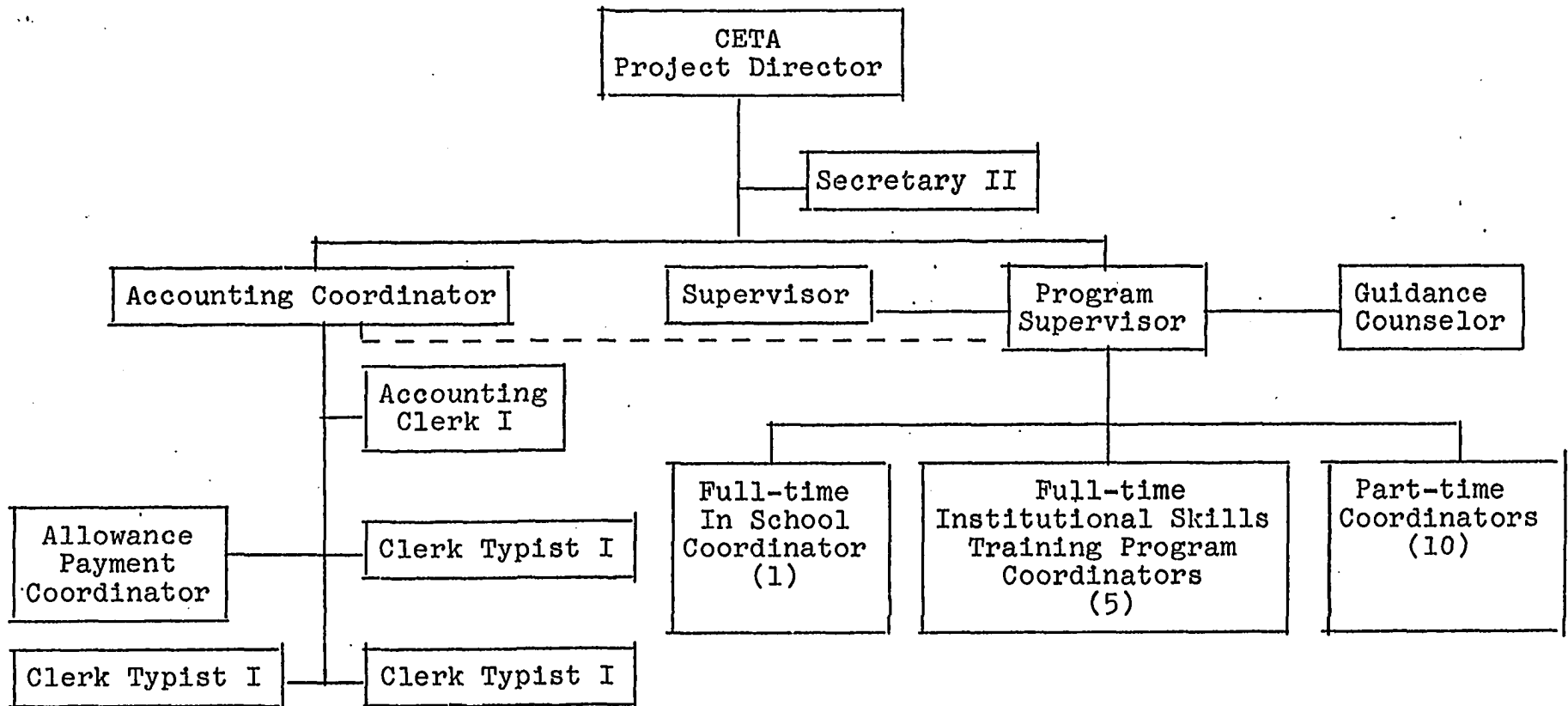
The budget figures included in Table 3 are broken down by cost category, but only the total amounts are separated for classroom training and work experience (program categories). This separation is indicated in the footnotes of the table. For a further analysis of school board budget and expenditures, see Table 14 in Appendix 1. The figures presented there are by line item within each cost category but do not include Section 112 funds.

Basically, the Pinellas County Institutional Skill Training Program involves two types of classroom situations and many different types of training. The different types of training in which school board clients who terminated during the July 1, 1975 - June 30, 1976, time period were enrolled are shown in Table 4.

The first five training programs noted in Table 4 are referred to by the school board as "class size" programs. These are programs where the school board CETA unit originates classes exclusively for CETA participants. Classroom space is provided at no charge to the program by county vocational and technical schools, and instructors for these courses are hired

FIGURE 2

ORGANIZATIONAL CHART OF PINELLAS COUNTY
SCHOOL BOARD CETA UNIT



Source: Pinellas County School Board CETA Unit. (Mimeographed.)

TABLE 3

PINELLAS COUNTY SCHOOL BOARD CETA, TITLE I BUDGETS AND
EXPENDITURES, JULY 1, 1975 - JUNE 30, 1976,
(Expenditures by Cost Category for Each
Program Category)^a

Cost Category	Title I Budget (Regular)	Title I Budget (Vocational Education funds)	Combined Budget	Classroom Training (ISTP) Expenditures (including Vocational Education funds) ^{a, b}	Work Experience Expenditures ^a	Total Expenditures ^a
Administration	\$ 140,170.00		\$ 140,170.00	\$ 92,532.00	\$ 37,814.00	\$ 130,346.00
Allowances to Clients	558,795.00		558,795.00	528,041.00	4,497.00	532,538.00
Wages to Clients	157,150.00		157,150.00		155,594.00	155,594.00
Fringe Benefits to Clients	12,880.00		12,880.00		6,933.00	6,933.00
Training Costs	105,880.00	\$ 74,890.00	180,770.00	153,331.17		153,331.17
Services to Clients	123,380.00	39,000.00	162,380.00	109,765.90	31,735.00	141,500.90
Total	1,098,255.00 ^c	113,890.00 ^d	1,212,145.00 ^e	883,670.07	236,573.00	1,120,243.07

Source: Compiled from Department of Labor CETA Financial Status Reports and accounting working papers supplied by Pinellas County School Board.

^aExpenditure figures include encumbrances as well as actual cash outlays.

^b\$57,965.17 of Training Costs, \$38,769.90 of Services to Clients and \$96,735.07 of Total represent Section 112, Vocational Education Funds expenditures (basically for the work evaluation program and purchase of equipment for classes).

^cProgram category breakdown is \$831,985.00 for Classroom Training and \$266,270.00 for Work Experience.

^dVocational Education Funds budget has been placed in the Classroom Training Program category for purposes of this analysis.

^eProgram category breakdown is \$945,875.00 for Classroom Training and \$266,270.00 for Work Experience.

TABLE 4

PINELLAS COUNTY SCHOOL BOARD: ISTP MEMBERSHIP DATA FOR
CLIENTS TERMINATED, JULY 1, 1975 - JUNE 30, 1976

Training Program	Completed Training Program	Terminated: Training Incomplete	Classroom Hours Required for Completion ^a
Clerk, General Office	25	12	1,080
Auto Paint & Body Repair	9	5	2,160
Cooking & Baking	1	13	2,160 (cooking) 1,350 (baking)
Auto Mechanics		9	2,160
Diesel Mechanics	1	8	2,160
Bookkeeping	6		1,080
Licensed Practical Nurse	4		1,350
Cosmetology	4		1,200
Data Processing	3	1	1,650
Welding		3	
Keypunch		2	
Nurses' Aide		1	
Masonry		1	
Commercial Art		1	
Accounting Clerk ^a	1	1	
Horticultural		1	
Lands Maintenance		1	
Electronics		1	
Work Evaluation	—	<u>37</u>	
Total	54	97	

Source: Pinellas County School Board "Terminated Client Status Change Summary Sheets" for Months of July 1975 - June 1976.

^aOnly noted for classes organized exclusively for CETA trainees and for other programs which produced at least one completion during the year ended June 30, 1976. This information was not readily available for the accounting clerk training program.

through regular school board procedures. The instructors are paid, however, by CETA, Title I funds. Payments are also made from grant funds to the county schools for utilities used in the classrooms, except in the case of some of the general office clerk classes held at the St. Petersburg Vocational and Technical Institution.

All other training programs listed in Table 4, and others available to CETA clients at various county institutions, are referred to as "slot-in" programs. These are regular classes already in existence at county schools, and CETA clients are accepted into such classes on a "space available" basis. The charge to the CETA program for these trainees is only a flat fee for supplies and materials. The school board maintains a list of these charges for the various programs available at different vocational and technical schools in Pinellas County.⁴ These fees ranged from \$11.50 for masonry to \$255.00 for electronics for one year (four quarters) of classes (for the classes noted in Table 4). One program, commercial art, was listed at no charge. These, of course, were the fees in effect for the 1976 fiscal year.

An examination of Table 4 reveals those training programs which were selected more often, those which produced more completions, and the classroom hours required for completion of the more popular programs. These classroom hours required

⁴See Appendix 2 for supply and material costs for "slot-ins," FY-76, for Tomlinson Adult Vocational Center, Pinellas Vocational Technical Institute, and Dunedin High School Night Program.

for completion may be compared with the Florida State Board of Education's concept of full time equivalency (FTE), for school districts, which is 900 classroom periods (hours) for the school year (180 class days during the nine months x five periods per day). "Class size" training programs usually involve 30 hours per week in classes dealing with specified types of training; in addition, participants receive credit for some hours spent in supplemental classes. For example, it may be necessary for students to attend basic education courses in conjunction with both "class size" and "slot-in" training programs.

Trainees receive a basic allowance equal to the minimum wage of \$2.30 per hour (in 1976) for the number of classroom training hours validated. This normally amounts to 37.5 hours per week. If a client also receives unemployment compensation, however, this amount is deducted from his basic allowance. For example, if a client receives \$50.00 a week unemployment compensation and goes to school 37.5 hours in the program, the amount of his basic allowance is \$86.25, but the CETA program only pays \$36.25 of this total.

Participants who receive Aid for Dependent Children or other public assistance (other than food stamps) are only paid \$6.00 per day incentive allowance from CETA; they do not receive the basic hourly allowance. Although the school board does not adjust its payments to those who receive food stamps, administrators of the food stamp program check with

the school board concerning amounts food stamp recipients are paid by the school board.

Clients qualifying for the basic allowance may also receive \$2.00 per day each for some dependents. It does not apply to the first two dependents or any beyond the sixth. A daily transportation allowance of \$2.00 is paid to all clients the first 21 days. After this initial 21 day period, the daily transportation allowance ranges from a maximum of \$2.00 downward.⁵

All clients accepted into the school board classroom training program are referred to the school board by CETA units in two different Florida State Employment Service offices in Pinellas County (St. Petersburg and Clearwater). These units are financed by CETA, Title I funds (see Tables 1 and 2) and provide all of the services noted previously. The two major tasks performed by these CETA employment service units are those of selection of clients for the program and placement assistance upon termination from the program.

In the selection of clients, two basic requirements determine eligibility. A person must be economically disadvantaged and either unemployed or underemployed.⁶ And a person

⁵Pinellas County-St. Petersburg Manpower Consortium, "FY 1976 Comprehensive Manpower Plan," Clearwater, Fla., 1975, p. 44. (Mimeographed.)

⁶Some clients were admitted to the training program under special provisions, although not economically disadvantaged. Primarily, these were participants who were either Vietnam Era veterans or handicapped.

must also be a member of a "significant segment" of the population. Definitions of significant segments are presented in more detail in Appendix 3. Basically, there are five categories: high school dropouts, persons 16-24 years old lacking work experience, Vietnam Era veterans, female heads of households, and persons 45 years old or over.⁷ Applicants are also rated to determine the priority of those who are eligible for admission into the program. These rating criteria and a sample form used for this evaluation are also included in Appendix 3. A summary of client characteristics is provided in Table 5 for the 306 ISTP participants served by the school board in the year ended June 30, 1976.

In addition to the Florida State Employment Service, the Pinellas Opportunity Council was also involved in the process of providing clients for the school board program through its outreach activities. After an examination of client files at the school board, it was found that 49 of 360 clients were originally referred to the employment service CETA units by the Pinellas Opportunity Council. Although these 360 clients were not all in the program during the time period under investigation, this sample does indicate the extent to which the council's services affect the school board program.

⁷Pinellas County-St. Petersburg Manpower Consortium, "FY 1976 Comprehensive Manpower Plan," pp. 14, 33. (Mimeographed.)

TABLE 5

PINELLAS COUNTY SCHOOL BOARD ISTEP: SUMMARY OF CLIENT
CHARACTERISTICS, JULY 1, 1975 - JUNE 30, 1976

Characteristic		Total Clients Served (Includes those carried over)
Total		305
Sex	Male	158
	Female	147
Age	18 and under	42
	19 - 21	89
	22 - 44	145
	45 - 54	19
	55 - 64	10
Education	8 and under	22
	9 - 11	140
	High School Graduate or Equivalent	128
	Post High School	15
Family Income	Aid for Dependent Children	30
	Other Public Assistance	18
	Economically Disadvantaged	286
Ethnic Group	White	212
	Black	90
	American Indian	1
	Other	2
Spanish American		1
Limited English-Speaking Ability		3
Migrant or Seasonal Farm Family Member		1
Veteran	Recently Separated	6
	Special	9
	Other	14
Handicapped		34
Full-Time Student		14
Offender		29
Labor Force Status	Underemployed	18
	Unemployed	280
	Other	7
Receiving Unemployment Insurance		26

Source: U.S. Department of Labor Quarterly Summary of Participant Characteristics for July 1, 1975 - June 30, 1976, time period (supplied by Pinellas County School Board).

When clients are referred to the school board from the employment service CETA units, they are usually placed in a work evaluation group where four different areas are assessed. Social and behavioral functioning are evaluated through the observation of work samples and testing, and work habits are assessed in the same manner. Test results indicate academic and learning skills; and tests, together with medical questionnaires, are also administered to determine medical and physical condition.

If a client attends work evaluation sessions on a full-time basis, it requires 10 class days or 50 hours at the rate of 5 hours per day. Some participants, however, can only attend sessions for 2 hours each night. This, of course, means that these clients will be in work evaluation for approximately one month. It may even require slightly longer since there may be a problem of when a particular examination is scheduled to be offered.

Administrators of the program state that only eight percent of the clients completing work evaluation are not accepted into the program, and these are normally not rejected because of academic deficiencies. Of course, some participants may decide during or after work evaluation that they do not desire to enter the program. As indicated in one of the footnotes to Table 3, the work evaluation program was one of two

purposes for which Section 112 funds were primarily expended during the year ended June 30, 1976.⁸

⁸Interview with Fred Matz, Accounting Coordinator, Pinellas County School Board CETA Project, St. Petersburg, Fla., Aug. 15, 1976.

CHAPTER IV

COST OF THE PINELLAS COUNTY PROGRAM

With some understanding of the delivery system and reported CETA expenditures for the Pinellas County Institutional Skill Training Program, it is now possible to proceed to an analysis of the economic cost of this program from a societal point of view. As always, when examining economic cost, we must focus on the opportunities foregone--the real goods and services which were not produced as a result of the resources devoted to the program.

We cannot use the reported CETA expenditures for the Pinellas County School Board for the year ended June 30, 1976, as a measure of the total economic cost of the program. The task is not that simple. As already noted in the preceding chapter, other organizations also incurred CETA expenses in order to get the trainees into the program and into employment following termination from the program. In addition, there is the question of whether non-CETA expenditures were made in order to aid the program. There is also, of course, the more fundamental question of whether any

expenditure made (CETA or non-CETA) represented an opportunity (economic) cost for society.

Even before approaching these questions, however, the reported CETA expenditures for the school board will require some adjustment. To be consistent, school board expenditures should be calculated only for the 151 clients who terminated during the year ended June 30, 1976. This is the sample group for which benefits are to be estimated. As indicated in Table 5, the total number of clients participating in classroom training at the school board between July 1, 1975, and June 30, 1976, was 305.

The figure of 305 does not indicate the number in training each day throughout the entire year. Of the 305 who participated, 123 were carried over from the year ended June 30, 1975, and 154 were still enrolled on June 30, 1976. (It should be noted that some who were carried over from the previous year may still have been enrolled on June 30, 1976.) Of course, with 305 enrolled at one time or another during the year and 154 still in the program on June 30, 1976, the total terminated during the year was the 151 figure mentioned previously.

Since some of these 151 clients were in training prior to July 1, 1975, there were expenditures associated with their training at the school board not reflected in the \$883,670.07 amount noted for the year ended June 30, 1976. Furthermore, part of the \$883,670.07 expense was related to the training of

the 154 trainees still enrolled on June 30, 1976. If it can be assumed that a month of training for a client cost the same prior to July 1, 1975, as it did for the year ended June 30, 1976, however, the expenditure data for the latter time period can be used to estimate school board CETA spending for training only the 151 clients terminated.

In order to estimate the expenditures for the 151 clients in this way, it is first necessary to calculate an average daily enrollment for the program during the year ended June 30, 1976 (to take proper account of the length of time each of the 305 clients spent in the program during the year). Through the procedure illustrated in Table 6, we can estimate this average daily enrollment figure, which we can then treat as being the number of clients in the program continuously throughout the one year period. This is only an average figure for the year, based on mean figures for each month. With enrollment numbers for the beginning and ending of each month, however, it is a relatively reliable average.

It is now possible to make an estimate of school board expenditures associated with carrying one client in the program for one year by dividing the average daily enrollment figure of 135 into the total amount spent on classroom training at the school board of \$883,670.07. This yields an estimate of \$6,545.70 per client for one year in the program and \$545.48 per "client month."

An examination of data received for the 151 clients terminated from the school board program in the year ended

TABLE 6

PINELLAS COUNTY ISTEP: ENROLLMENT AT END OF EACH MONTH,
JUNE 30, 1975 - JUNE 30, 1976, AND AVERAGE DAILY
ENROLLMENTS FOR MONTHS AND YEAR

Date	Number Enrolled in Program	Average Daily Enrollment	Month
June 30, 1975	123		
		119	July 1975
July 31, 1975	115		
		114	Aug. 1975
Aug. 31, 1975	112		
		111	Sept. 1975
Sept. 30, 1975	110		
		115	Oct. 1975
Oct. 31, 1975	119		
		121	Nov. 1975
Nov. 30, 1975	123		
		129	Dec. 1975
Dec. 31, 1975	135		
		135	Jan. 1976
Jan. 31, 1976	134		
		135	Feb. 1976
Feb. 29, 1976	136		
		150	Mar. 1976
Mar. 31, 1976	164		
		165	Apr. 1976
Apr. 30, 1976	166		
		167	May 1976
May 31, 1976	167		
		161	June 1976
June 30, 1976	154		
Total of Average Daily Enroll-			
ments 1,622			
Average Daily Enrollment			
for Year ended June 30, 1976			
(1,622 ÷ 12) 135			

Source: Pinellas County School Board CETA Unit

June 30, 1976, provides an approximation of the average time each spent in the training program. This figure is 7.4 months.¹ The fact that 37 of the 151 participants were only involved in work evaluation contributed to this rather low "average time in the program" calculation.

Applying the \$545.48 monthly cost to carry a client in the program, we can now estimate the average school board CETA expenditure for carrying each of the 151 clients who terminated from the program. The resulting \$4,036.55 is an estimate of school board CETA expenditures for one client for 7.4 months in the program. If we multiply \$4,036.55 times the 151 clients, we arrive at a total CETA training expense of \$609,519.05--not \$883,670.07. In other words, 151 clients for an average of 7.4 months is only 69 percent of 135 clients for an average of one year. Our expenditure data are for a full year, but the benefit sample of 151 clients terminated during the year does not reflect the full year's effort for the school board training program.

Before addressing the question of whether expenditures are representative of economic costs, the analysis will continue with an examination of other relevant CETA and non-CETA expenditures. It was noted in the description of the school board delivery system that three other organizations (Florida State Employment Service, Pinellas Opportunity Council, and

¹This was derived by working through the files of the 151 clients and rounding the data in order to approximate the time spent in the program by each individual.

the Manpower Planning Unit) received CETA funding in order to aid in the administration of the institutional skill training program in Pinellas County. If incremental wages in training related jobs are to be used as an indication of benefits, all costs incurred in order to achieve these wages must be considered, including the cost of selection, counseling, and placement of clients, as well as classroom training.

The Florida State Employment Service's reported expenditure for services to all CETA, Title I clients in the year ended June 30, 1976, was \$161,134.00 (see Table 1). This total amount cannot be attributed to CETA school board trainees, however, since the employment service aided other types of Title I clients (for example, on-the-job trainees and many for testing, counseling, and placement only) with these funds. An examination of employment service CETA, Title I reports for the July 1, 1975 - June 30, 1976, time period showed 2,298 total participants and 1,697 new clients during the year. These same categories for the school board program were 305 and 182 respectively. Therefore, school board participants were 13 percent of those at the employment service and new enrollments were 11 percent of those at the employment service.

If these ratios were used to prorate Florida State Employment Service expenditures for the year to the school board program, we would multiply \$161,134.00 times 11-13 percent approximately. Administrators at the employment service estimated a somewhat higher percentage range of 15-20 percent,

however. For one thing, a very high percentage of the total Title I clients served by the employment service (perhaps as high as 80 percent according to one administrator) attempted to enter the school board program. Related testing and counseling services regarding CETA classroom training represent an expenditure for that program, even though the clients were not accepted for training.

Administrators at the employment service have also questioned whether the \$161,134.00 amount for their total CETA, Title I effort is reflective of the true expense. Although that figure includes an indirect cost percentage of 12 percent for employment service overhead, the manager of the St. Petersburg employment service office believes this may be too low.² Because of the factors noted, it appears that the allocation of 11-13 percent of the reported CETA employment service expenditure to the ISTP effort is too low, and an estimate in the 15-20 percent range suggested by administrators at the employment service seems more appropriate.

In the interest of providing conservative benefit-cost estimates, the larger, 20 percent figure will be adopted here. It must be remembered, however, that we are working with a benefit group which is only approximately 69 percent of the full year's effort. The \$161,134.00 CETA expenditure for the employment service for the year ended June 30, 1976, must

²An estimate of the time devoted to the Title I program by non-CETA employment service workers is contained in Appendix 4.

therefore be multiplied by 20 percent and the product of this calculation must then be multiplied times 69 percent. The result is \$22,236.49.

The Pinellas Opportunity Council's reported CETA expenditure for services to all CETA, Title I clients in the year ended June 30, 1976, was \$59,084.55 (see Table 1). Once again, we cannot attribute all of this to the school board ISTP effort since some of the Council's CETA, Title I clients did not enter classroom training but received other Title I services from the Florida State Employment Service. According to information provided by the Opportunity Council, 228 of their referrals to the employment service were found eligible for Title I services of some kind.

The Opportunity Council did not have data regarding what percentage of its Title I clients entered classroom training at the school board. As noted in the discussion of the ISTP delivery system, however, a sample of 360 participant files at the school board showed 49 of 360 (14 percent) were originally referred to the employment service by the Opportunity Council. We also know that 182 new participants were enrolled in the school board program during the year ended June 30, 1976. If we can assume that 14 percent (25) of these were from the Opportunity Council, we can compare the 25 with the 228 Opportunity Council clients accepted for Title I services to get some basis for apportioning the Council's CETA expenditures to the ISTP effort. By this process, we determine that

approximately 11 percent of Opportunity Council clients accepted for CETA, Title I services entered the school board classroom training program.

The 11 percent figure is probably too low for prorating the Council's CETA expenditures, however, since many of the Council's clients were no doubt counseled regarding the school board program but were not accepted and only received other Title I services from the employment service instead. In addition, as with the employment service, the total expense reported to CETA may be somewhat low because of understatement of overhead costs. Unlike the employment service, there was no overhead cost at all included in reported CETA expenditures by the Opportunity Council, although some were probably warranted. For example, there was no charge for office space used, and a small amount of office equipment purchased with other funds was utilized. A small amount of personnel overhead was also involved in Title I Opportunity Council activities without a compensating charge.

For these reasons, an apportionment of 20 percent of reported CETA, Title I expenditures for the Opportunity Council also appears warranted for the year ended June 30, 1976. Again, however, it must be noted that our sample is only 69 percent of the year's effort. Therefore, the 20 percent apportionment must be multiplied by 69 percent to obtain the CETA expenditure relevant to our sample for this organization. The result is \$8,153.67.

The Pinellas County-St. Petersburg Manpower Planning Unit's reported CETA, Title I expenditure for the July 1, 1975 - June 30, 1976, time period was \$39,526.04. This amount was apportioned to various Title I programs by the planning unit on the basis of the relative expenditures (see Table 1). The total Manpower Planning Unit CETA expenditure allocated to classroom training was \$18,340.08. This included classroom training other than the institutional skill training program at the school board, however. In addition, Section 112 expenditures by the school board were not considered in the apportionment. When these expenditures are considered, the school board ISTP share of the \$39,526.04 expenditure is 44 percent or \$17,391.46 for the year ended June 30, 1976.

There was no CETA, Title I charge for indirect costs (overhead) at the Manpower Planning Unit for the July 1, 1975 - June 30, 1976, time period. "In-kind" contributions were provided by the Board of County Commissioners, however, in the form of office space, utilities, data processing, purchasing, and accounting supportive services. An indirect cost plan was to be developed during the 1977 fiscal year. For the year ended June 30, 1976, an implicit charge of 10 percent has been added to the \$17,391.46 apportionment for the ISTP effort. This yields an amount of \$19,130.61; but again, we must only use 69 percent of this or \$13,200.12 as an expenditure associated with our benefit sample.

In our discussion of the three Pinellas County support organizations, mention has been made of expenditures other

than those financed with CETA monies. Since the program evaluation is being done from a societal point of view, these are also relevant, if they represent opportunity costs for society. We must now return to the Pinellas County School Board to determine if CETA, Title I expenditures reported by that organization represented the total spending during the year for the benefit group noted.

There was no charge for school board overhead costs included in the CETA, Title I expenditures reported for the year ended June 30, 1976. Like the Manpower Planning Unit, however, the school board was involved in developing an indirect cost percentage to charge in subsequent time periods. The percentage currently used (1976) by the school board for other federal grants is 4.46 percent. If this were applied to the \$883,670.07 of Title I funds spent on the ISTP effort by the school board, the charge for indirect costs for the year would be \$39,411.60. We will use 69 percent of this amount (\$27,194.07) as an imputed expenditure associated with our benefit sample.

The 4.46 percent currently charged to federal grants by the school board is basically for administrative overhead. School board employees involved in the CETA classroom training program did, in fact, require some supervisory and coordinative support from other school board employees not paid by CETA grant funds. In addition, CETA funded employees were paid through county payroll facilities, and county accounting and data processing services were provided in this manner.

Beyond the administrative support mentioned above, however, the Pinellas County School Board provided three other types of in-kind contributions to the CETA classroom training program. First, no rent was charged for office facilities used by the school board CETA administrative unit. Second, no rent was charged for "class size" program classes held in county facilities (and no utilities for one particular class). Third, only supply and material fees (see Appendix 2) were charged for CETA trainees attending regular classes at county vocational and technical institutions. There were no charges to the program for in-kind contributions to these trainees in the form of instructors' services or classroom facilities.

Before discussing whether these in-kind contributions, as well as the others previously noted, represented an economic cost to society, we must also mention a couple of factors which could be used to justify minor reductions in any estimate of the economic cost of the training program. First, some school board employees paid from CETA, Title I funds devoted part of their effort to CETA, Title III programs at the school board.³ This means the amounts reported as Title I expenditures for their salaries were somewhat higher than the true costs associated with their Title I effort.

Second, approximately \$36,000.00 of equipment with a useful life longer than one year was purchased during the year

³Title III of CETA provides funds for youth summer employment programs and other employment programs for high school and college age students.

ended June 30, 1976, by the school board, primarily from Section 112 funds. This equipment should also result in benefits to clients receiving training after June 30, 1976. Of course, it is also correct that some benefits expected to accrue to clients as a result of training during the year ended June 30, 1976, are due to equipment purchased with Title I and other federal grant funds in previous time periods.

School board records indicate that approximately \$25,000.00 worth of equipment purchased in previous years was utilized during the July 1, 1975 - June 30, 1976, time period. (This amount represents the cost of the equipment used and not the depreciation for the year.) Because the amount of equipment purchased in the year ended June 30, 1976, was large relative to the total amount utilized, however, the total school board CETA expenditure for the year overstates slightly the spending for training for that time period alone.

The discussion has, to this point, been concerned with the question of what expenditures benefited the sample group of ISTP clients who terminated from the program during the year ended June 30, 1976. An attempt has been made to consider all substantial expenditures related to the ISTP effort in Pinellas County. Some minor expenditures related less directly to the Pinellas County program have no doubt been omitted. One that immediately comes to mind is a charge for overhead expenses

within the U.S. Department of Labor national offices.⁴ The proper charge, in this particular case, would have been difficult to determine and, it is believed, would have been small relative to total Pinellas County program expenditures.

Attention must now be directed toward the more pervasive question of whether the expenditures noted should be considered economic costs for society for purposes of our analysis. Typically, only those expenditures which represent marginal social opportunity costs should qualify. Payments for the use of unemployed resources would therefore seem to be excluded.

Whereas there may have been no alternative use for particular resources during a given time period, however, the question remains as to whether a zero marginal social cost should be attributed to these resources in benefit-cost comparisons to be used as a planning guide where allocative efficiency is an issue. Moreover, the question of whether there was no alternative use in the short run just because the resources would not, in fact, have been utilized may require further consideration.

The most obvious example (in this study) of an expenditure which should be questioned on the basis of economic cost is the \$532,538.00 amount paid out by the Pinellas County

⁴Michael E. Borus and William R. Tash, Measuring the Impact of Manpower Programs: A Primer (Ann Arbor, Mich.: Institute of Labor and Industrial Relations, the University of Michigan/Wayne State University, 1970), p. 53.

School Board as "allowances to clients" (see Table 2).⁵

This was by far the largest single expenditure for the ISTP effort in Pinellas County for the period examined and, explicitly, represents nothing more than a transfer payment. It can be assumed that food, shelter, and clothing were purchased by CETA participants with these funds, but these costs to society would have been incurred without the program and therefore do not represent marginal social opportunity costs.

The proper economic cost to be considered for engaging clients in the training is the foregone earnings (output), if any, of the trainees due to their unemployment while in the program. Although most of the participants were unemployed when entering the program (see Table 5), some would undoubtedly have been employed during the time they were in training. If it were assumed that all of the trainees would have been otherwise employed full-time at the then existing minimum wage, the \$532,538.00 expenditure for client allowances could be used as a measure of foregone earnings and output for society. Of course, the relevant cost for this item for our sample group would be 69 percent of this amount or \$367,451.22.

If it were instead assumed that all of the trainees would have been unemployed throughout their time in the program, there would be no cost at all for foregone earnings and output

⁵Note that all expenditures of the Pinellas County School Board shown under "wages to clients" and "fringe benefits to clients" were for the work experience program. See Table 14 in Appendix 1 for further clarification.

for society. Even if all of the participants would, in fact, have been unemployed, however, there may still be a basis for treating the \$367,451.22 expenditure as a reflection of foregone earnings for long run (planning) purposes. An argument for this treatment could be based on the assumption that alternative government programs, perhaps public works projects, can be developed in the long run if the resources are not employed in the private sector (also a possibility, of course). Indeed, it could be argued that such alternatives were available in the short run, and therefore the opportunity foregone was not zero (even for that period).

Two authors of a well-known public finance text have included the following statement in their chapter dealing with expenditure evaluation:

Using unemployed resources poorly may indeed be better than not using them at all. But it is not as good as using them for a superior purpose. Unless there are political constraints which permit only one use, cost-benefit analysis should apply the concept of opportunity cost even where resources are otherwise unemployed."⁶

Burton A. Weisbrod has suggested an approach to educational program evaluation which considers the potential earnings of students (rather than actual earnings and output, which may be affected by unemployment):

It seems to me to be analytically unwise to mix study of allocative efficiency of additional expenditures on education with study of the efficiency of monetary and fiscal policy in maintaining full employment. I

⁶Richard A. Musgrave and Peggy B. Musgrave, Public Finance in Theory and Practice (New York: McGraw-Hill, Inc., 1973), p. 161.

would like to urge that in looking at the question of whether to invest more in education, we consider what students could earn and produce, not what they might actually earn or produce, as affected by unemployment. The efficiency of educational expenditures in dealing with unemployment is a quite different question from the efficiency of education as an allocation problem. Although there might be short-run transitional unemployment associated with some movement of students into the labor force, the basic issue of investment in people through education is of the long run.⁷

Of course, it can be argued that the unemployed clients whom the CETA program is designed to benefit were unemployed due to structural reasons and therefore would not have been affected by more "efficient" monetary and fiscal policy. Still, it is more than possible that their productivity would have been greater than zero in a different type of effort sponsored by the government sector.

An argument could be made here with regard to the value of foregone leisure time, but that is an intangible which would only add to our measurement problems. This is not to say, however, that the argument is without substance. If the maximization of satisfaction is the objective for society, rather than output alone, it is an important consideration when leisure time is valued more highly than the immediate consumption benefits of training. It should also be noted that when unemployed resources with zero opportunity cost are assumed to exist, it can be argued that part of the foregone earnings (output) due to otherwise employed clients entering training

⁷Burton A. Weisbrod, "Education and Investment in Human Capital," The Journal of Political Economy 70 (Supplement: Oct. 1962):123.

may be offset by otherwise unemployed persons moving into their jobs. This is referred to as the "vacuum effect."⁸

When benefit-cost ratios are calculated for this study, two sets of calculations will be made. One will include as an economic cost the \$367,451.22 expenditure allocated to our sample group of trainees for "allowances to clients," and the other will not include any of this expenditure. This will provide the two possible extremes for reader evaluation. It must be stressed that, when included, the expenditure is being viewed as representative of foregone earnings and output for trainees.

At the beginning of this chapter, it was estimated that the total CETA expenditure at the school board for our sample of 151 clients was \$609,519.05. Deducting the \$367,451.22 expenditure for client allowances, leaves a remaining expense of \$242,067.83 to be examined. These funds were spent for "administration," "training costs," and "services to clients" as indicated in Table 2 and Table 14 in Appendix 1. (Table 14 also reveals the expenditures by line item but does not include Section 112 funds spent.) Approximately \$36,000.00 of these funds were expended for equipment, which will be used, to some extent, in subsequent time periods.

In addition to school board CETA expenses for the sample group, other non-CETA, school board expenditures were also

⁸Steve L. Barsby, Cost-Benefit Analysis and Manpower Programs (Lexington, Mass.: D. C. Heath and Co., 1972), p. 15.

discussed previously. A \$27,194.07 amount was imputed for administrative overhead at the school board, and it was indicated that additional in-kind contributions were involved to some extent. Finally, it was noted that some school board CETA expenditures apportioned to our sample group benefited other groups (CETA, Title III clients) or should benefit other groups in subsequent periods. (Although some expenditures for equipment in previous time periods benefited our sample group, it is believed that equipment expenditures for this time period exceeded equipment depreciation.)

All things considered, if the \$27,194.07 administrative overhead apportionment is added to the \$242,067.83 reported CETA expenditure an estimate of the economic cost (exclusive of earnings foregone by trainees) at the school board is obtained which seems relatively accurate. The assumption here is that the \$242,067.83 expenditure was for resources which would have been employed elsewhere and, based upon the further assumption of competitive conditions, is reflective of the value of those resources in alternative uses. As indicated in Table 14 (Appendix 1), a large portion of this amount was spent for salaries, fringe benefits, and travel for those employed in providing administration, training, and services to clients.

The \$27,194.07 charge for administrative overhead at the school board, if not an accurate reflection of marginal social opportunity cost for the short-run period examined, certainly appears to represent a program-related cost

which should be included when benefit-cost comparisons are used for determining what programs are selected in the future. Even for the long-run, however, the apportionment of overhead cost on the basis of average (per unit) cost may overstate the true marginal cost if economies of scale are involved.

Some of these same points can be noted with regard to the other school board in-kind contributions noted previously. Here, it is perhaps more evident that these resources would, in most cases, not have been utilized during the period examined, however. For this reason, and partially to offset expenditures included but which aided or will aid other groups, an additional cost was not imputed for these other in-kind contributions.

It is also believed that the expenditures previously apportioned to the Pinellas County ISTEP effort for the three support organizations are approximately reflective of the social opportunity cost of the resources used. Again, there were some overhead expenses included in these estimates which perhaps do not accurately represent marginal costs to society in the short-run period under examination. Still, in the long-run, alternative uses should be available for these resources. (This is not to say that there were no alternative uses and marginal social opportunity cost for the period investigated.)

The estimated program costs to be used for the Florida State Employment Service, Pinellas Opportunity Council, and the Pinellas County-St. Petersburg Manpower Planning Unit

are \$22,236.49, \$8,153.67, and \$13,200.12, respectively. When these are added to the \$269,261.90 estimated cost (exclusive of trainee foregone earnings) for the Pinellas County School Board, the total estimated economic cost of the program becomes \$312,852.18. If we then add the \$367,451.22 amount for trainee foregone earnings, the estimated program cost is \$680,303.40.

CHAPTER V

PINELLAS COUNTY BENEFIT DATA

In Chapter I it was noted that benefits would be measured by estimating training-related incremental earnings for the group of 151 Pinellas County ISTP participants who terminated during the year ended June 30, 1976. In this chapter, the necessary employment and training data for making benefit estimates for this group will be presented. The analysis and estimates of benefits, however, will be reserved for the following chapter.

It is only necessary to examine employment and training data for the 114 clients who actually entered vocational training in order to estimate training-related incremental earnings for the entire group of 151. Thirty-seven of the 151 clients were only involved in work evaluation and cannot benefit by obtaining employment related to training.¹ The cost of

¹It can be argued that some benefits may accrue to these 37 clients as a result of their work evaluation experience. Although an attempt will not be made to quantify any such benefits, the possibility of their existence will be mentioned as an additional factor to be considered in evaluating the program in the concluding chapter.

providing work evaluation for these 37 participants, however, represents a cost of obtaining whatever benefits will accrue to the group of 151 and was therefore included in the cost estimates in the previous chapter.

In order to estimate training-related incremental earnings for the 114 trainees, their employment situations before entering the program must be compared with post-CETA employment histories. Where post-CETA employment data are lacking, information from CETA files regarding client training histories will also aid in estimating benefits. Information relating to clients' last employment before CETA was obtained from CETA intake records and provides trainee wage rates in their last previous employment, as well as the types of occupations. Post-CETA employment data were obtained both from CETA termination records and from client interviews.

Participants were not necessarily terminated from CETA upon their terminations from the institutional skill training program at the Pinellas County School Board. If employment was not obtained when the client terminated from training, he was referred to the Florida State Employment Service CETA unit for help in finding work. In any case, it was the employment service that assigned final dispositions for the trainees and completed CETA termination records.

Basically, four types of final dispositions were assigned: positive, training-related; positive, training-unrelated; non-positive; and "other positive." Table 7 provides a breakdown

TABLE 7

TRAINING AND CETA TERMINATION DATA FOR CLIENTS TERMINATED
FROM PINELLAS COUNTY ISTP, JULY 1, 1975 - JUNE 30, 1976

CETA Termination Status	Completed Training	Terminated: Training Incomplete-- Four or More Months	Terminated: Training Incomplete-- Less Than Four Months	Total
Positive, Training- related	29	3	1	33
Positive, Training- unrelated	6	5	1	12
Non-positive	7	23	6	36
Other Positive	6	7	0	13
Termination Information Not Available	6	10	4	20
Total	54	48	12	114

Source: Pinellas County School Board CETA Unit, "Terminated Client Status Change Summary Sheets," July 1975 - June 1976, and information obtained from interviews with Pinellas County ISTP clients.

of the number of trainees assigned to each of these four categories. Termination information is not available for the 20 clients included in the fifth category shown in this table.

The positive, training-related group contains those participants who obtained employment related to their training when terminating from CETA. Clients in the positive, training-unrelated category obtained employment upon termination from CETA, but it was not related to the training received. The non-positive category includes those for whom the employment service could verify no positive results within a reasonable period of time. There were numerous reasons for this assignment. Some clients would not respond to employment service attempts to aid them in finding jobs. Some moved to other locations, and the employment service was unable to trace them; a few became chronically ill or died. The "other positive" category represents those who terminated from CETA to enroll in an activity funded by another CETA title or a manpower program not funded by CETA, to enroll full time in academic or vocational schools, or to join the military service.

Twenty-two of the 114 clients with possible benefits were never assigned final dispositions by the CETA unit of the employment service. Their records were transferred to the employment service when they terminated from the training program but, for some reason, the employment service failed to officially terminate them from CETA. Two of these unassigned clients were interviewed. One had been unemployed for the

entire two year period after leaving the training program and has been treated as a non-positive termination for purposes of this study. The other had been employed in two unrelated occupations following training and therefore has been treated as a positive, training-unrelated termination. Twenty of these clients, however, could not be located for interviews and are therefore included in the "termination information not available" category in Table 7. This table also contains information regarding time spent in training and program completion for trainees in each termination category.

The importance of program completion will be discussed more fully in the following chapter. At this point, it can be observed from an examination of Table 7 that 88 percent of clients who obtained jobs related to training upon termination from CETA had completed their respective training programs. Fifty percent of those obtaining unrelated employment and 46 percent assigned "other positive" dispositions completed training. On the other hand, only 19 percent of the trainees in the non-positive category and 30 percent of those for whom termination information is not available completed training programs.

Positive, Training-related Terminations

Thirty-three of the 114 clients with possible training benefits were assigned positive, training-related dispositions upon termination from CETA. A major portion of the effort involved in this study was devoted to finding and interviewing

these trainees, whenever possible, in person. Through personal and telephone interviews, information was obtained from 27 of the 33 participants regarding their employment and salary situations approximately one to two years after leaving training. It is believed that this information will provide greater credibility for estimates of long-run benefits. Only a small number (approximately 10 percent) of clients from other categories were interviewed, however, and therefore CETA training and termination records must also be utilized in order to estimate benefits for the 114 participants.

Table 8 is presented here to provide a summary of the employment and training data obtained from CETA records and interviews for the 33 trainees who initially found related jobs when terminated from CETA. For the six trainees who could not be located for interviews, initial post-CETA occupations and wages indicated on CETA termination records are shown in parentheses in place of occupations and wages at times of interviews. Initial post-CETA employment data are omitted for the 27 clients who were interviewed since the more recent and important information regarding their occupations is provided.

Training records of the 33 clients who obtained related jobs upon termination from CETA revealed very few negative comments. This was to be expected, of course, since 29 of the 33 completed training programs. Twelve completed clerk, general office training. Five completed the auto paint and

TABLE 8

EMPLOYMENT AND TRAINING DATA FOR CLIENTS WHO TERMINATED FROM PINELLAS
COUNTY ISTP, JULY 1, 1975 - JUNE 30, 1976, AND ENTERED RELATED
OCCUPATIONS UPON TERMINATION FROM CETA

Last Occupation Before CETA ^a	Wage Rate Before CETA ^a	Weeks Unempl. Before CETA ^a	Occupation at Time of Interview (or at CETA Termination, if not interviewed)	Last Known Wage Rate	Age at CETA Entry	Sex	Race	Previous Education (grade completed)	Months in ISTP (*Com- pleted) ^b	Type of Training	Relationship of "Interview" Occupation to Training
1. Waitress	\$1.60 ^c	21	Clerk Typist 1 ^d	\$2.78	19	F	W	12	6*	Clerk, Gen. Office	Related ^d
2. Secretary ^e	1.60 ^e	20 ^f	File Clerk	3.07	23	F	W	13	4*	Acctg. Clerk	Related ^f
3. Bartender	2.00 ^c	52	Apartment Manager	3.25	44	F	W	10	9*	Clerk Gen. Office	Related
4. Bookkeeper	2.25	1,	Not interviewed (Clerk, Gen. Office) (3.00)		50	F	W	12	9*	Bookkeeping	Not interviewed
5. Waitress	1.35 ^o	4	Clerk, Gen. Office	2.67	22	F	W	11	9*	Clerk Gen. Office	Related
6. Cashier	2.00	4	Secretary	4.32	42	F	W	12	12* ^g	Clerk Gen. Office	Related
7. Cashier	2.00	52	Receptionist	2.75	41	F	W	12	12*	Clerk Gen. Office	Related
8. Cashier	2.00	2	Janitorial Work ^h	2.40	24	F	W	12	12	Cooks & Bakers	Unrelated ^h
9. Shipping Clerk	1.90	52	School Book Store Manager	3.32	41	F	W	11	11*	Clerk, Gen. Office	Related

Continued

TABLE 8-Continued

	Last Occupation Before CETA ^a	Wage Rate Before CETA ^a	Weeks Unemply. Before CETA ^a	Occupation at Time of Interview (or at CETA Termination, if not interviewed)	Last Known Wage Rate	Age at CETA Entry	Sex	Race	Previous Education (grade completed)	Months in ISTP (*Com- pleted) ^b	Type of Training	Relationship of "Interview" Occupation to Training
10.	Assembler	\$2.00	16	Filing & Making Eyeglass Patterns ¹	\$2.30	59	F	W	8	12	Key punch	Unrelated ¹
11.	Sales Trainee	2.25	52 ^j	Boat Mechanic	3.25 ^k	20	M	W	12	12* ⁸	Diesel Mechanic	Related
12.	Nurses' Aide	2.00	1	Licensed Practical Nurse	3.50	21	F	W	12	12*	Lic. Pract. Nurse	Related
13.	Nurses' Aide	2.64	0	Licensed Practical Nurse	4.40	24	F	B	12	12*	Lic. Pract. Nurse	Related
14.	Cashier	1.90	5	Unemployed	----	21	F	W	12	12*	Lic. Pract. Nurse	Unemployed
15.	Laundry Worker	2.25	12	Unemployed	----	20	F	B	12	14*	Clerk, Gen. Office	Unemployed
16.	Public Checker	2.10	12	Secretary	3.28	19	F	W	12 ¹	14*	Clerk, Gen. Office	Related
17.	Draftsman	3.00	1	Unemployed	----	27	M	W	12 ^m	10*	Bookkeeping	Unemployed
18.	Maid	2.00	28	Customer Service Representative	3.65	31	F	B	13	15*	Clerk, Gen. Office	Related

Continued

TABLE 8-Continued

	Last Occupation Before CETA ^a	Wage Rate Before CETA ^a	Weeks Unempl. Before CETA ^a	Occupation at Time of Interview (or at CETA Termination, if not interviewed)	Last Known Wage Rate	Age at CETA Entry	Sex	Race	Previous Education (grade completed)	Months in ISTP (*Com- pleted) ^b	Type of Training	Relationship of "Interview" Occupation to Training
19.	Cosmeto- logist	\$2.00	2	Accounts Payable Clerk	\$3.11	43	F	W	12	11* ⁸	Clerk, Gen. Office	Related
20.	Tray Line Worker	1.90	8	Unemployed	----	20	F	W	12	15*	Data Processing	Unemployed
21.	Alterations (Piece Work)	1.50	52	Unemployed	----	37	F	W	12	16*	Bookkeeping	Unemployed
22.	Construction Laborer	2.85	52	Auto Body Repair	4.00	20	M	W	12	12*	Auto Paint & Body Rep.	Related
23.	Gas Station Attendant	2.75	3	Industrial Spray Painter	5.00	20	M	W	9	17*	Auto Paint & Body Rep.	Related
24.	Plater	3.42	1	Auto Painter	4.00	24	M	W ⁿ	12	17*	Auto Paint & Body Rep.	Related
25.	Construction Laborer	2.00	24	Not interviewed (Auto Body Repair)	(2.30)	17	M	W	8	17*	Auto Paint & Body Rep.	Not interviewed
26.	Cashier	2.10	8	Credit Clerk Supervisor	3.60	29	F	W	11	17*	Clerk, Gen. Office	Related
27.	Recreational Aide	1.94	2	Welder ^o	4.59	21	M	W	12	17	Welding	Related ^o

Continued

TABLE 8-Continued

	Last Occupation Before CETA ^a	Wage Rate Before CETA ^a	Weeks Unemploy. Before CETA ^a	Occupation at Time of Interview (or at CETA Termination, if not interviewed)	Last Known Wage Rate	Age at CETA Entry	Sex	Race	Previous Education (grade completed)	Months in ISTP (*Com- pleted) ^b	Type of Training	Relationship of "Interview" Occupation to Training
28.	Proofreader	\$2.20	15	Not interviewed (Clerk Typist)	\$(2.65)	18	F	W	12	9*	Clerk, Gen. Office	Not interviewed
29.	Salesperson	2.00	26 ^j	Not interviewed (Bookkeeper)	(2.50)	47	F	W	12	13*	Data Processing	Not interviewed
30.	Painter	3.50	8	Not interviewed (Auto Body Repair)	(unknown)	25	M	W	11	17*	Auto Paint & Body Rep.	Not interviewed
31.	Book Binder	2.50	42	Not interviewed (welding)	(8.75)	43	M	W	8	2	Welding	Not interviewed
32.	Real Estate Sales	Comm. ^p	42	Office Nurse	3.32	43	F	W	12	12*	Lic. Pract. Nurse	Related
33.	Nurses' Aide	1.65	13	Hair Stylist	4.50	18	F	W	11	13*	Cosmetology	Related

Source: Compiled from Pinellas County CETA intake and termination records and information from interviews with Pinellas County ISTP clients.

^aLast occupation, wage rate, and weeks unemployed before CETA training have all been taken from CETA intake forms. Some clients gave different responses when interviewed. In most cases, however, these clients admitted that, due to the time elapsed, they were not sure about the before-CETA employment information given in the interview. It is also possible that clients worked in different occupations between the dates of the intake forms and the dates they started in the program. It was also found, through these interviews, that when a client is listed on the intake form as unemployed for 52 weeks, it may mean longer than 52 weeks, sometimes several years. Clients with designation of 0 in the unemployment column were working at the time of the intake but were considered underemployed.

Continued

TABLE 8-Continued

^bClients who completed training are noted with an asterisk. Some clients interviewed did not believe they had completed even though shown on school board records as completed, and some believed they had completed but were not shown as completed. Records of the school board have been used here in designating those who completed, except for one Licensed Practical Nurse who obviously did complete--contrary to notation in CETA records.

^cDoes not include tips received according to client's response in interview.

^dPublic service job financed by CETA. Client also believes that pre-CETA experience provided adequate skills for her to perform current duties.

^eClient worked as secretary for father and received room and board in addition to \$1.60 wage.

^fClient was in school as full time accounting clerk trainee before entering CETA. Although current employment is related, the ability to perform current duties is somewhat attributable to previous experience, working as secretary for father for 3 years, and also to previous schooling.

^gDoes not include time spent in CETA training during a previous enrollment period. This previous training may have been in a different area.

^hCurrent occupation is only part time for 20 hours per week.

ⁱClient indicated in interview that current job is no more than marginally related to training, and hours worked per week are currently only 25.

^jClient was a full time student when entering training.

^kClient indicated in interview that he also earns commission on some jobs.

^lAlso completed one semester of junior college.

^mAlso completed two or three years of drafting classes before CETA training.

ⁿSpanish American.

^oClient is in U.S. Air Force in addition to working as a welder 40 hours per week in the private sector. He will be discharged soon since the Air Force has not provided the welding job he was promised when he enlisted (according to interview with client).

^pClient worked on commission and indicated in interview that she made as much as \$9,000.00 one year. She also noted, however, that earnings were much below this rate at other times.

body repair program, and four others graduated from the program for licensed practical nurses. The remaining eight completions were from programs for bookkeeping (three), data processing (two), accounting clerks (one), diesel mechanics (one), and cosmetology (one). The four clients in this group of 33 who did not complete training were enrolled in cooks and bakers training (one), keypunch (one), and welding (two). Three of these four clients were in training for 12 months or longer. One of the welding trainees was only in the program two months.

Five of the six participants in this group who could not be located for interviews completed training programs. Two were enrolled in auto paint and body repair training; one was in general office clerk training; one was in bookkeeping; and one was a data processing trainee. The other student who was not located was the one enrolled in welding training for only two months.

Positive, Training-unrelated Terminations

A summary of employment and training data for the 12 clients who obtained unrelated jobs when terminated from CETA is supplied in Table 9. Only initial post-CETA employment information (from CETA termination records) is shown in the body of the table. For the two clients in this group who were interviewed, more recent employment data are provided in the footnotes to the table.

TABLE 9

EMPLOYMENT AND TRAINING DATA FOR CLIENTS WHO TERMINATED FROM PINELLAS
COUNTY ISTP, JULY 1, 1975 - JUNE 30, 1976, AND ENTERED UNRELATED
OCCUPATIONS UPON TERMINATION FROM CETA

Last Occupation Before CETA ^a	Wage Rate Before CETA ^a	Weeks Unemply. Before CETA ^a	Initial Occupation After CETA ^a	Wage Rate After CETA	Age at CETA Entry	Sex	Race	Previous Education (grade completed)	Months in ISTP (*Com- pleted) ^b	Type of Training	Relationship of Initial Occupation to Training
1. Waitress ^c	\$1.00 ^c	0	Teacher's Aide ^c	\$2.50 ^c	47	F	W	10	8	Cooks & Bakers	Unrelated ^c
2. Cook	1.85	4	Car Clean-Up	\$7 - \$10 per car	22	M	B	9	8	Auto Paint & Body Rep.	Unrelated
3. Duct Installer	4.00	10	Not shown in records	2.50	26	M	W	12	12	Diesel Mechanic	Unrelated
4. Waitress ^d	1.70	4	Laundry Worker	2.30	17	F	AI ^d	11	12*	Clerk, Gen. Office	Unrelated
5. Maid	2.00	3	Cleaner	2.30	20	F	B	11	4	Nurses' Aide	Unrelated
6. Salesperson	2.00	36	Sales Clerk	2.30	19	F	W	11	9*	Clerk, Gen. Office	Unrelated
7. Seamstress	2.25	8	Waitress	1.00 ^e	30	F	W	12	9*	Clerk, Gen. Office	Unrelated
8. None	none	No work exper. ^f	Shipping Clerk	2.40	18	M	W	10	12*	Auto Paint & Body Rep.	Unrelated

Continued

TABLE 9-Continued

	Last Occupation Before CETA ^a	Wage Rate Before CETA ^a	Weeks Unemply. Before CETA ^a	Initial Occupation ^a After CETA ^a	Wage Rate After CETA	Age at CETA Entry	Sex	Race	Previous Education (grade completed)	Months in ISTP (*Com- pleted) ^b	Type of Training	Relationship of Initial Occupation to Training
9.	Nursery Worker	\$2.10	14 ^f	Store Laborer	\$2.40	18	M	W	10	12*	Auto Paint & Body Rep.	Unrelated
10.	Machine Operator	1.80	36	Community Worker	2.84	19	F	B	12	14*	Data Processing	Unrelated
11.	Waitress	.75 ^g	32	Custodian	2.79	28	F	W	9	.5	Clerk, Gen. Office	Unrelated
12.	Cashier ^h	2.00	48	Cashier ^h	2.10 ^h	22	F	B	10	10	Cooks & Bakers	Unrelated ^h

Source: Compiled from Pinellas County CETA intake and termination records and information from interviews with Pinellas County ISTP clients.

^aLast occupation, wage rate, weeks unemployed, initial occupation after CETA and related wage rate have all been taken from CETA intake and termination records (with exception of initial occupation after CETA and related wage for client on line 12; see footnote ^h). Client with designation of 0 in the unemployment column was working at the time of the intake but was considered underemployed.

^bClients who completed training are noted with an asterisk.

^cThis client was interviewed and indicated that \$1.00 wage rate in last occupation before CETA does not include tips received. At the time of the interview, the client had returned to the same waitress job she held before training and stated that she was earning approximately \$2.50 per hour, including tips.

^dThis client's race is American Indian. When an interview was attempted, it was found that she is now deceased.

^eHourly wage without tips.

^fThis client was a full-time student at the time the intake form was completed.

Continued

TABLE 9-Continued

^gThis was the hourly wage shown on the intake form. Although not specified, it can probably be assumed to be without tips included.

^hThis client was interviewed. Since she was not officially terminated from CETA, the information regarding her initial occupation after CETA and the related wage rate were obtained through the interview. At the time of the interview, she had also had a second unrelated job as a part time teacher's aide in a nursery school at \$2.30 per hour. When interviewed, she was unemployed and recovering from a broken ankle. When the ankle healed, she hoped to return to the nursery school job--perhaps full time.

Training records for these 12 participants included few negative comments, although only six were successful in completing training programs. Three of those who completed were trained as general office clerks. Two finished the auto paint and body repair program, and one was a data processing graduate.

The two clients in this group who were interviewed were previously enrolled in cooks and bakers training, one for eight months and the other for 10 months. Neither completed training. One had returned to the waitress job she held prior to CETA training, and the other, who had worked in two unrelated occupations following training, was unemployed and recovering from a broken ankle when interviewed. The other four trainees who did not complete training (from this group of 12) were enrolled in auto paint and body repair (one), diesel mechanics (one), nurses' aide training (one), and general office clerk training (one). The general office clerk trainee was only in the program for approximately one-half month, and the nurses' aide trainee was enrolled approximately four months.

Non-positive Terminations

Rather than include data for these 36 clients in tabular form, the relevant information will be presented in the discussion which follows. Post-CETA employment data were not available from CETA termination records for these trainees. Non-positive dispositions were assigned by the CETA

unit of the Florida State Employment Service when employment or other positive results could not be verified for participants. These dispositions, because of their nature, however, provide some basis for evaluating the program's effect on this group of 36 clients. Moreover, additional post-CETA information is available for five trainees from this group who were interviewed, and CETA training records will reveal further useful data for estimating benefits for the 36 participants. Neither the information obtained from interviews nor from CETA files suggest an optimistic picture with regard to expected economic benefits from the program for the 36 clients. This, of course, was basically the message conveyed through the assignment of non-positive termination dispositions for them.

Six of these clients were actually involved in vocational training for only two months or less. One of these six was interviewed and was the only one of the five interviewed (from the group of 36) who was employed in an occupation related to training. His CETA file indicated he had received previous training for this occupation (welding), however, and it is difficult to attribute much of any benefits he may derive from the job to his short period as a CETA trainee.

Six others from the non-positive termination category were in training from four to five months but did not complete their programs. One of these six is now deceased. Two were terminated from training due to poor attendance and unsatisfactory progress. One changed from cooks and bakers training

to auto mechanics during a four month training span and then quit because he was "undecided." One, who had a nervous disorder thought to be a result of training, was to have returned to training but never did. And one, who was a "former offender," was in the training program only four months and could not be located when an interview was attempted.

Fourteen of the 36 were in training six to 16 months but failed to complete programs and, for one reason or another, appear to have little chance of benefiting economically from their training. Five of these were terminated due to attendance problems and/or because of unsatisfactory progress or lack of interest. Two others were terminated for lack of cooperation. One had personal and health problems as well as some problems in class, and another had excessive absences before being terminated from CETA when he was incarcerated. One terminated due to illness and tried to re-enter the program but was rejected on the basis of the work evaluation report. One was noted as being unable to "cope in this technology." The remaining three in this group of 14 were interviewed. Two of these had not worked at all since training (for one, it had been approximately two years), and the other was working in an unrelated area, with no plans to use his training skills in the future.

This leaves 10 of the 36 designated as non-positive terminations who appear to have more than a negligible chance of benefiting economically from the program. Seven of the

10 completed training (the only completions in the group of 36). Even here, however, expected benefits are questionable. It must be remembered that all 36 clients in this category were terminated without verification of any positive results. In most cases, the time between termination from training and termination from CETA by the employment service was several months or longer.

One of these 10 trainees was interviewed. She completed general office clerk training but was assigned a non-positive CETA termination disposition by the employment service when she became pregnant and was not seeking employment. It was learned that she was unemployed for approximately one year after her CETA termination before she started her own day-care center for children. She indicated that she might possibly return to office work after having a second child and seeing it through the pre-school years.

Another one of the 10 trainees completed training (bookkeeping) in only six months, possibly because she was enrolled in the program in another time period, according to the CETA intake form. If this client were to obtain related employment, all of the benefits could not necessarily be attributed to expenditures included for her in our cost data.

The other five, in this group of 10, who completed training programs were enrolled in general office clerk training (three) and cosmetology (two). The remaining three participants in the group quit before completion. One left

the auto mechanics program after 16 months; one terminated from cooks and bakers training following 10 months in the program; and one, who is now 56 years old, quit general office clerk training after 16 months to stay home with her ill husband.

Other Positive Terminations

Data for these 13 participants will also be presented without the use of a summary table. It was previously noted that this disposition was assigned for any of three reasons: the client enrolled in an activity funded by another CETA title or a manpower program not funded by CETA; the client enrolled full time in academic or vocational schools; or the client joined the military service. Four of the 13 clients who were assigned this disposition belong in the first of these three categories as a result of obtaining CETA financed jobs. Seven were assigned this disposition for the second reason, and two entered the military service. Six of the 13 participants completed training programs.

All four of the clients who obtained CETA financed employment completed training. Three of these four graduated from the general office clerk program and went to work in CETA financed jobs which were related to their training. The other trainee completed the bookkeeping program and obtained a CETA funded position as a night watchman. One of the three general office clerk trainees was interviewed and was still in the same clerk-cashier (CETA, Title VI) position with the City of Dunedin,

Florida. She was earning \$3.66 per hour compared with a wage of \$2.90 per hour as a grocery store cashier before CETA training. At the time of the interview, approximately two years had elapsed since she had completed training.

Two of the seven participants who enrolled full time in academic or vocational schools completed training programs. One of the two graduated from the clerk, general office program, and the other was a bookkeeping trainee. The other five of these seven clients did not complete their programs. CETA files indicated that instructors believed one of these could not cope with the public and could not be employable. Another of the five was terminated from training due to lack of progress and attendance problems, and two others, who were in training approximately five months each, were noted as having attendance problems before they terminated. The remaining client in this group received a federal grant to attend junior college after approximately one year as a general office clerk trainee.

Neither of the two clients who entered the military service completed training. Information from CETA files indicated that both had problems with absences, punctuality, and indifference before terminating. One of the two was only in training approximately four months.

Termination Information Not Available

The 20 trainees included in the final category in Table 7 were not assigned dispositions by the employment

service CETA unit and could not be located for interviews. In spite of the lack of post-CETA employment and termination data, an attempt must be made to estimate benefits for this group. Training data for these clients will be summarized in the discussion which follows and utilized in the following chapter for benefit projections.

It would not be proper to reduce the sample under consideration from 114 to 94 by eliminating benefits and costs for these 20 participants. There is no reason to assume that benefits per dollar of cost for these 20 will be the same as benefits per dollar for the other 94 trainees. Eliminating these 20 from consideration could therefore bias benefit-cost comparisons.

There may be reason to believe that benefits per dollar of cost will be lower for the 20 clients in this category. It can be noted from Table 7 that only six of the 20 trainees (30 percent) in this group completed training whereas 48 of the other 94 (51 percent approximately) completed their programs. In addition, four of the 20 (20 percent) terminated in less than four months without completing. Only eight of the 94 (approximately nine percent) terminated without completing in such a short time. It should also be mentioned that evidence seems to indicate the employment service tried unsuccessfully to achieve and verify positive results for these trainees for an extended period of time.

Two of the 20 clients were in training only one month or less. Two others completed only approximately two months.

One was in the program just over four months and was noted as having trouble with absences. Two were terminated for poor attendance, and another was terminated for unsatisfactory progress. One was in training approximately five months and had problems with attendance, punctuality, and attitude. One completed two months of auto paint and body repair training and then transferred to landscape maintenance for four months before termination. One terminated after six months of auto mechanics and was cited for poor attention and lack of progress during this period; and one, who completed cooks and bakers training, was deceased at the time an interview was attempted.

Five of the remaining eight participants in this group completed training (two in the general office clerk program, two in auto paint and body repair, and one in cosmetology). The other three terminated in seven months (horticulture), 10 months (clerk, general office), and 17 months (cooks and bakers). CETA training files seemed to indicate the client who terminated after 17 months of cooks and bakers training had completed the program. Other CETA records, however, suggested otherwise. There was also some evidence in the files that some of these final eight clients obtained related employment, but that information was not complete.

CHAPTER VI

PINELLAS COUNTY BENEFIT ANALYSIS

The presentation of employment and training data in the previous chapter should allow some assessment of the impact of the Pinellas County Institutional Skill Training Program for the time period examined. To further aid in the assessment of program benefits, an analysis of that data will be presented here. This analysis will lead to numerical estimates of economic benefits for the program. Numerous assumptions will be required, however, in order to arrive at these estimates. As a result, they cannot be stated without qualifications. One objective of this chapter is to make the reader aware of these qualifications due to the assumptions required. With this knowledge, the benefit estimates can serve as a useful tool for evaluating the impact of the training program.

The 114 clients with possible training benefits can be divided into three classifications with regard to our knowledge concerning their post-CETA employment histories. First, there are those who were interviewed one to two years

following termination from the training program, and therefore for whom we have more recent, longer-term employment information. Second, there are those for whom information is only available concerning their initial employment upon termination from CETA. And third, there are those clients for whom no post-CETA employment information is available. The latter group includes trainees who were not interviewed and also were not assigned final dispositions by the employment service CETA unit, as well as those who were assigned non-positive or "other positive" dispositions and were not interviewed.

Our task, in this chapter, is to estimate benefits for the entire group of 114 participants. These benefits will then be compared with estimates of training costs in Chapter VII. It should be emphasized that benefits for the 114 trainees will be examined from the societal point of view, and we are therefore interested in the value of training-related increments in earnings and output for the economy as a whole. The possible elimination of welfare (transfer) payments as a result of training is not a consideration when this viewpoint is adopted. As noted in Chapter I, indirect and intangible benefits from the program will also not be considered when benefits are quantified. These other factors will be mentioned as additional considerations in the concluding chapter. Benefits will be quantified in this chapter by estimating the value of training-related incremental wages for ISTP clients. Wage rates received prior to CETA training will require an upward adjustment

(to allow for the general upward trend in money wage rates) before training-related incremental wages can be calculated.

Benefit Analysis: Clients Assigned Positive,
Training-Related Dispositions

Benefits will be estimated in this section for the participants who obtained training-related jobs upon termination from CETA. Some post-CETA employment information is available for all 33 of these clients (see Table 8). In addition, 27 of the 33 were interviewed, and data regarding their employment situations one to two years after terminations were also obtained. Twenty of the 27 interviewed were still employed in areas related to their training. Five of the other seven interviewed were unemployed, and the remaining two trainees were working part time in unrelated jobs.

One problem in projecting benefits for this group of 33 trainees is that of deciding how to treat the six who could not be located for interviews. All six obtained related employment at the time they terminated from CETA, but information from the 27 interviews suggests that 100 percent cannot be expected to retain related jobs. Only 20, or 74 percent, of those interviewed were still in occupations related to their training one to two years later. Moreover, one of these (client number one in Table 8) was working in a CETA funded, public service job and stated that she believed her pre-CETA experience had provided adequate skills for her to perform the duties associated with that position. She will therefore be

treated as an "other positive" termination for purposes of our benefit analysis. This reduces the total in the group currently under examination to 32, the number of these interviewed to 26, and the number in related occupations when interviewed to 19. The percentage still in related jobs when interviewed now becomes 73 percent.

There is also some question about the relationship of post-CETA employment to training for one of the six clients who could not be located for an interview. The participant shown on line 31 in Table 8 was only in welding training for two months approximately before obtaining a related job at \$8.75 per hour. Because of the short time spent in training, and also because of the exceptionally high wage rate relative to others in the group, this client will be treated as a positive, training-unrelated termination for purposes of benefit estimates. Otherwise, the incremental wages for one participant, with questionable benefits from training, would have a substantial effect on estimates of training-related benefits. The treatment of this client further reduces the number in the group currently being examined to 31 but does not affect the percentage of those interviewed who were still in related jobs (since this client was not interviewed). It does, however, also reduce the number who were not located for interviews from six to five.

It appears that the most appropriate assumption regarding these five who were not interviewed is that 73 percent were

still in related occupations when interviews were attempted. To avoid working with a fraction of a client, 73 percent of five will be rounded to the nearest whole number, and therefore four of the five trainees will be treated as being in related jobs when interviews were conducted. As indicated previously, 19 of the clients in this group (reduced to 31 after subtracting the two trainees changed to the "other positive" and training-unrelated categories) were working in related occupations when they were interviewed.

This leaves only eight clients in this group who will not be treated as working in related positions one to two years following terminations from CETA. One of the eight is the one not located for an interview and assumed not to have been in a related job when the interview was attempted. The other seven were interviewed and were either unemployed or working part time in unrelated occupations. It will be assumed that these eight participants will not return to related occupations, and therefore that none of their future earnings can be attributed to their training. Some training-related earnings could be estimated for the eight clients for the time between CETA terminations and interviews, but these will not be included in our benefit calculations because of the relatively small amounts involved.

If interviewed at a subsequent time, it might well be found that some of the eight clients were back in related employment. It is also possible, however, that some of the

other 23 will move out of related occupations permanently in the future. Since we will assume that these 23 will remain in related jobs throughout their remaining average work life expectancy, we will also assume the eight trainees will not return to related employment. Based upon information from interviews with seven of the eight, this latter assumption does not appear particularly unwarranted.

One of the two who were working part time in unrelated areas was 62 years old when interviewed and was planning on retiring and receiving social security benefits. The other one, who was trained in cooking and baking, had not been able to function in jobs related to her training. One of the five unemployed clients had only been employed a short time following training and had been unable to find another job, probably because of discrimination due to a physical handicap. Three female trainees had stopped working because of having small children at home, and another female participant was contemplating attending college after recently being married.

Benefits will be estimated for the other 23 trainees for both the period between CETA terminations and interviews and the period represented by the remaining average work life expectancy from the times of interviews. The benefit period between CETA terminations and interviews will be treated as 18 months in duration because the actual times between terminations and interviews ranged from 12 to 24 months for the 23 trainees. For the remaining average work life expectancy

period, it will be assumed that training-related incremental wage rates increase at the beginning of each succeeding year. It will be assumed that incremental wage rates are constant during each 12 month period, however. The basis for the annual incremental wage rate increases will be discussed more fully at the end of this section. For the 18 month benefit period between CETA terminations and interviews, training-related incremental wage rates will be held constant when benefits are estimated.

As mentioned previously, before initial post-CETA incremental wage rates are calculated, some adjustment is probably warranted for wage rates received by the 23 clients in their last employment prior to entering the training program. Wage rates in these same occupations would undoubtedly have increased due to the general upward trend in money wage rates. Therefore, it would not be proper to assume that the amounts by which post-CETA wage rates exceeded pre-CETA wage rates were all attributable to training. In order to determine the correct adjustment for pre-CETA wage rates, it is first necessary to calculate the time which elapsed between pre-CETA employment and initial post-CETA occupations. It is important to consider the periods of unemployment before entering the program and the time periods between training terminations and CETA terminations, as well as time spent in training. When all three are considered, the average time between pre-CETA and post-CETA employment for the 23 participants

was approximately 16 months.. (The average time in the training program was approximately 12 months.)

Although all 23 clients did not leave training on the same date, it will be assumed that all 23 terminated from the training program on December 31, 1975, for purposes of adjusting pre-CETA wage rates. (All 23 trainees, of course, did terminate from training sometime during the July 1, 1975 - June 30, 1976, time period.) Since the average time between training terminations and CETA terminations was approximately one month, it will also be assumed that the 23 clients each obtained initial post-CETA employment on January 31, 1976. With an average time between pre-CETA and post-CETA employment of 16 months, we are therefore assuming that pre-CETA wages were last earned by the 23 trainees on September 30, 1974. The average wage rate for manufacturing employees in Pinellas County increased by 9.7 percent during the 16 months between September 1974, and January 1976,¹ and pre-CETA wage rates will be adjusted upward by this percentage before initial post-CETA incremental wage rates are calculated for the 23 participants. Further evidence of the general upward trend in money wage rates during this period was the increase in the federal minimum wage rate from \$2.20 to \$2.30 per hour on January 1, 1976.

¹Fla., Department of Commerce, Division of Employment Security, Pinellas County Labor Market Trends, Nov. 1975, p. 4, and Tampa-St. Petersburg SMSA Labor Market Trends, Mar. 1977, p. 7.

It could be argued that a larger upward adjustment is justified because some clients would have returned to previous occupations during the training period, and the added work experience would have resulted in promotions to higher levels (and wage rates) within old occupational categories. Furthermore, some of the younger participants might have found better paying positions after another 16 months (without training) as a result of considerations given to the maturity factor by employers.

It could also be argued, however, that we should not assume all 23 trainees would have been employed at times of CETA terminations (and subsequently) if they had not participated in the program. Most of the 23 clients were unemployed when entering the program (see Table 8). It could therefore be asserted that all of the wages received in post-CETA occupations should be considered training-related incremental earnings for most of the 23 trainees. This would certainly be an extreme position and will not be assumed in this study. Nevertheless, it does call attention to an important consideration in the evaluation process. It is possible that some clients who found related jobs would have remained unemployed without the training program.

The arguments noted above may very well offset each other. If this is the case, the most appropriate adjustment in pre-CETA wage rates may be the one based on the increase in the average wage rate for manufacturing employees in Pinellas

County. Incremental wage rates based upon a larger (15 percent) upward adjustment for pre-CETA wage rates will also be calculated, however, to allow the reader to judge the sensitivity of benefit estimates to assumptions of higher rates of growth in pre-CETA wage rates.

Although an appropriate control group is not available for comparison, the data presented in Table 9 for the 12 trainees who obtained unrelated employment when terminated from CETA may provide some indication of the ability of clients with similar characteristics to obtain higher wage rates, after a similar time period, without the benefit of training. These clients did receive training, of course, but it is difficult to see how it could have aided them in obtaining the unrelated jobs shown. There are two other problems in using this group as a standard. First, the clients were in training and therefore did not obtain additional work experience which might have resulted in higher wage rates. Second, all of these 12 trainees did obtain some type of employment or they would not have been included in the positive, training-unrelated group.

A mean incremental wage rate will not be calculated for the 12 participants in Table 9. It can be noted, however, that most of them obtained post-CETA jobs with approximately the same economic status as the last positions held prior to entering the program. Moreover, with the exception of the trainee shown on line 10, the largest percentage increase

from pre-CETA to post-CETA wage rates for any of the clients was approximately 15 percent. (It does not appear that percentage increases were larger than this for the participants with either pre-CETA or post-CETA income from tips or for the client whose post-CETA wage was designated as \$7.00 to \$10.00 per car.) The wage rate in post-CETA employment was \$1.50 per hour lower for one of the trainees, shown on line three in the table.

Rather than compute an initial post-CETA incremental wage rate for each of the 23 participants, the mean entry wage rate will be calculated, adjusted upward by either 9.7 or 15 percent, and then compared with the mean initial post-CETA wage rate for the 23 clients. The mean initial post-CETA incremental wage rate determined by this procedure will then be used for all 23 trainees in further benefit calculations.

As a result of information obtained through interviews, it was discovered that the last previous wage rates shown on CETA intake records for three of the 23 clients did not include additional compensation such as tips and room and board (see footnotes to Table 8). It was also discovered that the last previous wage rates indicated for two other trainees were those received many years earlier and therefore not reflective of what wage rates would have been in these jobs at the times they entered training (or shortly before). These two participants, for whom data are shown on lines seven and nine of Table 8, were housewives and out of the labor market for long periods

before entering the program. Furthermore, the client noted on line 32 in Table 8 was previously involved in real estate sales and the last previous wage rate was only designated on intake records as "commission." The federal minimum hourly wage rate at the times these six clients began training (\$2.20) will therefore be used for them in our computations of the mean entry wage rate for the 23 participants.² In addition, the average pre-CETA wage rate for the five of the 31 trainees not located for interviews will be used in our calculations for the four who were assumed to have been in related occupations when interviews were conducted.

After making the substitutions indicated in the preceding paragraph, the mean pre-CETA wage rate for the 23 clients is \$2.28 per hour. If this mean entry wage rate is now adjusted upward on the basis of the average increase in hourly wage rates for Pinellas County manufacturing employees during the September 1974 - January 1976 time period, 9.7 percent of the \$2.28 figure must be added. The additional \$.22 per hour yields an adjusted mean pre-CETA wage rate of \$2.50 for the 23 trainees. If the mean entry wage rate is, instead, adjusted upward by 15 percent, the adjusted mean entry wage rate becomes \$2.62 per hour.

²It was assumed that no time elapsed between pre-CETA jobs and training for these six clients when the average time between pre-CETA and post-CETA employment was previously calculated for the 23 clients.

The mean wage rate in initial post-CETA occupations for the 23 participants was \$2.87.³ When this amount is compared with the \$2.50 adjusted mean entry wage rate, the resulting mean initial post-CETA incremental wage rate for the group is \$.37. When the mean initial post-CETA wage rate is compared with the higher adjusted mean entry wage rate of \$2.62, the mean initial post-CETA incremental wage rate for the group is \$.25.

It was mentioned previously that the benefit period between CETA terminations and client interviews would be assumed to be 18 months long, since interviews were conducted one to two years following terminations. It was also noted that we would assume incremental wage rates for the 23 participants were the same throughout this time period as they were at the beginning of the period. If it is further assumed that each of the 23 trainees worked 3,120 hours during the 18 month period (40 hours per week multiplied times 78 weeks); the total of training-related incremental wages (for all 23 trainees) for this time period is \$26,551.20 when the larger initial post-CETA incremental wage rate is used and \$17,940.00 when the smaller incremental hourly wage rate estimate is substituted.

³This amount was computed on the basis of information from CETA terminations records. This information was only included in Table 8 of the previous chapter for the clients who were assigned positive, training-related dispositions but were not located for interviews. (Wage rates were shown in Table 8 for jobs held at the times of interviews for the other clients.) The average initial post-CETA wage rate for the five participants not located for interviews was included in computations for the four assumed to have been in related jobs when interviews were conducted.

Although all of the training-related incremental wages for this 18 month period were not received at the same times that training costs were incurred, it will be assumed that each dollar of benefits for the 18 month period is equivalent to one dollar of costs. Actually, some incremental wages for clients who terminated and obtained related employment before June 30, 1976, were earned during the time that costs included in our estimates were incurred. In addition, the assumption that initial post-CETA incremental wage rates did not increase during the 18 month period somewhat offsets the fact that part of the incremental wages were earned after June 30, 1976. (Clients' wages were higher at the end of the 18 month period when interviews were conducted.)

When estimating benefits for the period represented by the remaining average work life expectancy of the 23 clients, however, it cannot be assumed that dollars of training-related incremental earnings are directly comparable with dollars of economic costs which were incurred many years earlier. Due to the length of time involved, there must be some provision for converting incremental earnings into benefits which are comparable with costs.

If the resources employed in the training program had, instead, been devoted to an alternative investment project, an addition to the human or physical capital stock would have resulted. The alternative addition to the capital stock would then have resulted in additional production in subsequent time

periods. Since this alternative investment was foregone, it is these subsequent foregone increments in output which represent the economic cost to society. The evaluation process must therefore account not only for these amounts but also for the times when they would have occurred.

Typically, incremental returns from the program being evaluated are converted into benefits which are comparable with costs by determining the dollar outlay (at the time costs were incurred) which would have been required in the best equivalent, alternative investment in order to generate the same future returns at the same times. This dollar outlay required in the best alternative investment reflects the market value (referred to as the present value) of incremental returns from the program being evaluated at the time costs were incurred and is therefore comparable with these costs.

The size of the required dollar outlay in the best alternative investment depends upon the rate of return which the foregone investment would have provided. The higher the alternative rate of return, the smaller the present value of incremental returns from the program in question (since a smaller outlay would have been required to achieve them). The alternative rate of return used to determine the present value of incremental returns from a particular project is normally referred to as the discount rate. Selecting the proper discount rate is obviously an important decision in the

evaluation process and is the subject of much debate in economic literature.⁴

The procedure outlined above for converting incremental returns to dollar benefits which are comparable with costs will be utilized here. Moreover, it will be assumed that all costs occurred on June 30, 1976, and incremental returns estimated for the remaining average work life expectancy period will be converted to their present (market) value on that date.

The starting point for estimating program benefits for the period represented by the remaining average work life expectancy of the 23 participants is the determination of the training-related mean incremental wage rate when interviews were conducted. This wage rate will be used for all 23 clients when calculating their training-related incremental wages for estimated hours of employment during the 12 months following interviews. As indicated previously, this incremental wage rate (at times of interviews) will be increased annually by an appropriate percentage (to be explained below) in order to arrive at incremental wage rates to be used when computing incremental wages for subsequent years of the average work life expectancy period. Training-related incremental wages estimated

⁴It should be noted that if it is assumed that the resources employed in the training program would otherwise have been devoted to the production of consumer goods, it is still necessary to "discount" subsequent incremental wages attributed to the program to account for the time preference of consumers.

for each year will, of course, be converted to their present value on June 30, 1976, by the procedure explained previously.⁵

Before the training-related mean incremental wage rate in initial post-CETA occupations was determined, the mean pre-CETA wage rate for the 23 trainees was adjusted upward by 9.7 percent to compensate for the general upward trend in money wage rates which took place during the 16 month average time between pre-CETA and initial post-CETA employment. In addition, a higher, 15 percent increase in pre-CETA wage rates was also used for a separate calculation, based upon the assumption that CETA clients would have received percentage increases in hourly wage rates (without training) which were larger than the increase in the average hourly manufacturing wage rate in Pinellas County for the relevant time period.

Since interviews were conducted approximately 18 months after clients obtained initial post-CETA employment, it might appear that the figures resulting from these previous adjustments will require further upward adjustment before the training-related mean incremental wage rate at times of interviews is computed. According to the Florida Department of Commerce, however, the average hourly manufacturing wage rate in Pinellas County decreased 3.2 percent during the 18 months between

⁵Although incremental wages will be earned throughout each year, the normal capital budgeting technique of assuming all incremental returns for each year occur at the end of the year will be used when converting incremental wages to their present value on June 30, 1976.

January 1976 and July 1977.⁶ (It has been assumed, as before, that all 23 trainees obtained initial post-CETA employment at the same time, on January 31, 1976, and most of the interviews were, in fact, conducted at the end of this 18 month period, during July and August of 1977.)

The adjusted mean pre-CETA wage rate based on the 15 percent increase in pre-CETA wage rates (\$2.62) will not be adjusted downward to account for the 3.2 percent decline in the average manufacturing wage rate in Pinellas County. The previous 15 percent upward adjustment was based on the assumption that wage rates for clients would have increased by a larger percentage than the average manufacturing wage rate (if they had not entered the training program), and it will now be assumed that clients' wage rates would have remained unchanged during the 18 months when the average manufacturing wage rate decreased 3.2 percent. The \$2.50 adjusted mean pre-CETA wage rate (based on the 9.7 percent increase in pre-CETA wage rates), however, will be reduced by 3.2 percent to \$2.42 before it is used for calculating the mean incremental wage rate at times of interviews. This means that the \$2.42 fully adjusted mean pre-CETA wage rate will be based on the assumption that clients' pre-CETA wage rates would have changed at the same rate as the average Pinellas County manufacturing wage rate during both the 16 month and 18 month periods (if the clients had not entered training).

¹Fla., Department of Commerce, Division of Employment Security, Tampa-St. Petersburg SMSA Labor Market Trends, Mar. 1977, p. 7, and Sept. 1978, p. 7.

The next step is to calculate the mean wage rate for the 23 participants when interviews were conducted. Four of the 23 trainees were not located and were only assumed to be in related jobs when interviews were attempted. Before the mean wage rate at times of interviews can be computed, "interview" wage rates must be estimated for these four clients. Actually, a total of five trainees from the group of 31 were not located for interviews. Their initial post-CETA wage rates will be adjusted upward at the rate that the mean initial post-CETA wage rate increased for the 19 clients who were in related jobs when interviewed (25 percent), and the average of these five adjusted post-CETA wage rates will be used in further calculations as the wage rate earned by the four participants when interviews were attempted. The result when this methodology is employed is a mean wage rate at times of interviews for all 23 trainees of \$3.59 per hour. When the two fully adjusted mean pre-CETA wage rates (\$2.42 and \$2.62) are subtracted from this \$3.59 hourly wage, estimates of \$1.17 and \$.97 per hour for the mean incremental wage rate at times of interviews result.

It was noted previously that, due to the length of time involved, it would be incorrect to compare incremental wages for the remaining average work life expectancy period directly with program costs. It would also be incorrect to assume that incremental wage rates which existed at the times of interviews were unchanged throughout the average remaining work life expectancy of the 23 participants. Wage rates for workers in

the United States have increased in the past and can be expected to increase in the future as inflation and productivity gains continue. If it is assumed that the adjusted mean pre-CETA wage rate and the mean wage rate in occupations at the times of interviews will both increase at the same specified rate throughout the remaining average work life expectancy period, the training-related mean incremental wage rate will also grow at this rate.

The increase in compensation per hour for the United States nonfarm business sector during the 10 year period between 1966 and 1976 was equivalent to an annual growth rate of 7.4 percent.⁷ This annual rate of growth will be applied to training-related incremental wage rates for the group of 23 clients throughout their remaining average work life expectancy.

Since the remaining average work life expectancy for the 23 trainees is substantially longer than 10 years, it could be argued that benefit projections for this period should be based on the past growth in compensation per hour over a longer time period. The discount rate which will be used to convert incremental wages to their present value on June 30, 1976, however, will be based on interest rates (rates of return) available on that date. Richard A. and Peggy B. Musgrave have included the following comment in their well-known public finance textbook: "In the current setting, the high level of interest

⁷Economic Report of the President: 1978 (Washington, D.C.: Government Printing Office, 1978), p. 300.

rates is a reflection in part of anticipated inflation. If these high rates are used for discounting purposes, the same expected price rise must be reflected in estimating the dollar value of the benefit stream."⁸ The growth rate for compensation per hour during the recent 10 year period will be used for benefit projections because it is believed that increases in compensation during this period were based on a rate of inflation more reflective of the anticipated rate of inflation incorporated in interest rates available on June 30, 1976.

The growth rate in compensation per hour for the United States non-farm business sector is being used instead of the past growth rate for wage rates in Pinellas County for two reasons. First, in the longer run, trainees may migrate to other areas of the country (some already had at times of interviews); and second, data for wage rates in Pinellas County are not available for the entire 10 year period between 1966 and 1976, and a shorter period is not believed suitable for determination of a proper growth rate. It can be noted, however, that the increase in the average hourly manufacturing wage rate in Pinellas County during the eight year period between January 1969 and January 1977 was equivalent to an annual growth rate of 6.4 percent.⁹

⁸ Richard A. and Peggy B. Musgrave, Public Finance in Theory and Practice (New York: McGraw-Hill, Inc., 1973), p. 154.

⁹ Fla., Department of Commerce, Division of Labor and Employment Opportunities, Florida Labor Market Trends: Pinellas County, Mar. 1970, p. 8, and Fla., Department of Commerce, Division of Employment Security, Tampa-St. Petersburg SMSA Labor Market Trends, Mar. 1978, p. 9.

The average age of the 23 participants for whom benefits are being estimated was 32 years when interviews were conducted.¹⁰ A table of expected working life calculated and published by the United States Department of Labor indicates that the remaining average work life expectancy for men of this age was approximately 30 years in 1968.¹¹

A table based on work life expectancies for men and women in 1970 was published in the February 1976 issue of the Monthly Labor Review, but this later table only included remaining work life expectancies for selected ages. Ages 30 and 35 were included but not ages in between. A comparison of the 1968 and 1970 tables does reveal, however, that there was no change in the average number of remaining years of labor force participation for males at age 30 between 1968 and 1970. Moreover, the change at age 35 was only from 27.7 to 27.6 years.

The 1970 table also indicates very little differences in remaining work life expectancies at ages of 30 and 35 between men and women who were single, divorced, widowed, or separated.¹² Most of the women in the group of 23 participants

¹⁰In computing the average age for the 23 clients, the average age for the five trainees not located for interviews (from the group of 31) was used for the four who were assumed to be in related occupations when interviews were attempted.

¹¹Howard N. Fullerton, "A Table of Expected Working Life for Men, 1968," Monthly Labor Review 94 (June 1971):51.

¹²Howard N. Fullerton, Jr. and James J. Byrne, "Length of Working Life for Men and Women, 1970," Monthly Labor Review 99 (Feb. 1976):33.

can be included in one of these categories. Because of the small differences just noted and also because the remaining average work life expectancies for age 32 are not included in the 1970 table, the best estimate of remaining average work life for the 23 clients appears to be the 30 years shown for males of age 32 in the 1968 table.

One major task remains to be completed before benefit estimates are computed for the remaining average work life expectancy of the 23 participants. The discount rate for converting training-related incremental wages to their present value on June 30, 1976, must be determined. Actually, three different discount rates will be selected and used in our calculations in order to demonstrate the sensitivity of benefit estimates to different assumptions regarding the proper discount rate. In addition, a different assumption regarding the annual rate of unemployment for the 23 trainees during their remaining average work life expectancy will be coupled with each of the three discount rates selected.

Two different mean incremental wage rates at times of interviews (\$1.17 and \$.97 per hour) were computed previously to demonstrate the variations resulting from different assumptions regarding the increases in pre-CETA wage rates which the 23 clients would have received without entering the training program. When each of the three discount rate-unemployment rate combinations is coupled with each of the two mean incremental wage rates, six different estimates of benefits will result.

In all six of these calculations, the same annual growth rate (7.4 percent) for the training-related mean incremental wage rate and the same remaining average work life expectancy (30 years) will be used. Moreover, as mentioned previously, it will be assumed that the mean incremental wage rate increases (by 7.4 percent) at the beginning of the second and each succeeding year of the 30 year period. Training-related incremental wages for all estimated hours of work during each interim one year period will therefore be based on the mean incremental wage rate effective at the beginning of the year. Full employment for one client will be assumed to be 2,080 hours for each year (40 hours per week multiplied times 52 weeks).

It is not the purpose of this study to deal thoroughly with the theoretical problems involved in the selection of the proper discount rate. Some justification is required, however, for the range of discount rates selected. It is because of the uncertainty regarding the best choice of rates within this range that three rates will be used instead of one.

The lowest discount rate which will be used in our estimates is the yield which existed for long-term United States Government bonds on June 30, 1976. At that time, treasury bonds maturing in the year 2005 were priced to yield approximately eight percent.¹³ This interest rate represents

¹³Wall Street Journal, July 1, 1976, p. 28.

the cost to the government for obtaining the funds used to finance the training program, if the funds were obtained through borrowing rather than taxation. It might therefore be argued that the government had to pay this rate at that time because private investors believed they could earn approximately the same rate of return on riskless capital investments. This rate would therefore serve as a reflection of the social cost of capital (the rate of return which could be earned in the best, risk-equivalent alternative investment).

With regard to the use of the long-term government bond yield as the discount rate for government projects, however, Richard and Peggy Musgrave have included the following statement in their public finance textbook referred to previously:

Investors, in choosing between government bonds and corporate investment, equate the bond rate with corporate returns net of corporate tax; but it is the corporate return before tax which is indicative of the social return. It is appropriate, therefore, to gross up the bond rate to make it a better proxy for the social rate.¹⁴

Musgrave and Musgrave also note that a risk premium must be added to the investment cost if the riskless discount rate is used and the public investment involves risk.¹⁵

William Whipple, Jr., director of the Water Resources Institute of Rutgers University, has also commented on this latter issue:

However, Federal investment is not without uncertainty as to its future usefulness. It is subject to the

¹⁴Musgrave and Musgrave, Public Finance, p. 155.

¹⁵Ibid.

possibility of destruction by earthquakes or other unusual events, and, what is generally more important, to possible technical obsolescence A risk premium to compensate for these net risks should be included in returns from government investment, but there is no such component in the rate of interest on Federal bonds.¹⁶

It could be asked, at this point, if there is any justification for using the government bond discount rate of only eight percent for even one set of benefit estimates. Musgrave and Musgrave also discuss arguments put forth by advocates of a social discount rate below the private market rate of return in their public finance textbook. One argument which is mentioned is that individuals tend to underestimate the importance of saving relative to present consumption. This results in a time discount which is too high, and therefore the government should apply a rate below the private market rate to correct this error.

They also point out that some advocates of a social discount rate (below the private market rate) argue that some external benefits from investment are not taken into consideration in private market rates of return. This leads to something less than the optimum amount of investment for society, and therefore the government should use lower discount rates in evaluating government projects in order to increase the amount of investment taking place.¹⁷

¹⁶William Whipple, Jr., "Principles of Determining a Social Discount Rate," Water Resources Bulletin 11 (Aug. 1975):812-13.

¹⁷Musgrave and Musgrave, Public Finance, p. 152.

The arguments put forth by advocates of a social discount rate lower than the private market rate of return may offset the tax factor mentioned by Musgrave and Musgrave and the risk factor noted by Musgrave and Musgrave and by Whipple. As a result, the eight percent government bond rate may be the most appropriate for discounting training-related incremental wages for program participants.

Some readers, however, may feel that a higher discount rate is required because the arguments for a lower social discount rate do not completely offset the tax and risk factors. Two additional sets of benefit estimates will therefore be computed, based on discount rates of 12 and 16 percent. The 12 percent rate incorporates a four percentage point premium (above the government bond rate) in order to compensate for tax and risk factors not offset by arguments for a lower social discount rate, whereas the 16 percent rate incorporates an eight percentage point premium for this purpose.

Three different annual rates of unemployment will be coupled with the three discount rates selected. These assumed annual rates of unemployment will range from a historically low three percent rate to a historically high rate of nine percent. A moderate rate of unemployment of six percent will also be used. The lowest assumed rate of unemployment (3 percent) will be combined with the lowest discount rate of eight percent, and together they will yield the highest benefit estimates. A rate of unemployment of six percent will be assumed when the

12 percent discount rate is used in calculating benefits. And the nine percent assumed rate of unemployment will be coupled with the 16 percent discount rate in benefit computations.

If the \$1.17 per hour estimate is used as the training-related mean incremental wage rate at times of interviews, the three resulting estimates of benefits for the remaining average work life expectancy period are \$1,392,343.10 (when the eight percent discount rate-three percent unemployment rate combination is used); \$731,539.27 (when the 12 percent discount rate-six percent unemployment rate combination is applied); and \$459,754.82 (when the 16 percent discount rate-nine percent unemployment rate assumption is used). For all three of these benefit calculations, full employment was assumed to be 2,080 hours of work per year for each client; and the 30 year remaining average work life expectancy and 7.4 percent annual growth rate in the mean incremental wage rate were used.

If the \$.97 per hour estimate is used as the training-related mean incremental wage rate at times of interviews, the three resulting estimates of benefits for the remaining average work life expectancy period are \$1,154,335.80; \$606,489.86; and \$381,164.28, respectively for the three discount rate-unemployment rate combinations noted above. The same definition of full employment and the same remaining average work life expectancy and annual growth rate in the mean incremental wage rate were used in these computations.

Two estimates of benefits for the 18 month time period between initial post-CETA employment and interviews (\$26,551.20 and \$17,940.00) were previously determined for the group of 23 participants. One of these two benefit estimates must be added to each of the six estimates of benefits for the remaining average work life expectancy in order to arrive at estimates of total benefits for the group of 23 trainees.

The \$26,551.20 estimate for the shorter, 18 month period will be added to each of the three benefit estimates calculated for the longer time period by using the \$1.17 per hour mean incremental wage rate at times of interviews. The mean incremental wage rate used to compute the \$26,551.20 benefit estimate was based on the assumption that pre-CETA wage rates would have increased by the same percentage as the average manufacturing wage rate in Pinellas County during the 16 months average time between pre-CETA and initial post-CETA employment (if the 23 clients had not entered the training program).

The \$1.17 per hour mean incremental wage rate was based on this same assumption regarding increases in pre-CETA wage rates during the period between pre-CETA and initial post-CETA employment. In addition, it was further assumed that pre-CETA wage rates would have changed by the same percentage as the average Pinellas County manufacturing wage rate during the 18 month average time period between initial post-CETA employment and interviews. It is therefore consistent to combine the \$26,551.20 benefit estimate for the shorter time period with

each of the three estimates for the longer period which were based on the \$1.17 mean incremental wage rate at times of interviews. The three estimates of total benefits obtained by this procedure are \$1,418,894.30; \$758,090.47; and \$486,306.02, respectively.

The \$17,940.00 estimate of benefits for the 18 month period between initial post-CETA employment and interviews will be added to each of the three benefit estimates calculated for the longer time period by using the \$.97 per hour mean incremental wage rate at times of interviews. The mean incremental wage rate used to compute the \$17,940.00 benefit estimate was based on the assumption that, without training, pre-CETA wage rates for the 23 clients would have increased by a larger percentage than the average manufacturing wage rate in Pinellas County during the period between pre-CETA and initial post-CETA employment.

The \$.97 per hour mean incremental wage rate was based on this same assumption for the period between pre-CETA and initial post-CETA employment. Moreover, it was also assumed that clients' wage rates (without training) would not have declined during the period between initial post-CETA employment and interviews, whereas the average Pinellas County manufacturing wage rate did decline during this period. When the \$17,940.00 benefit estimate for the 18 month period is combined with each of the three estimates calculated for the longer period by using the \$.97 per hour mean incremental wage rate at times

of interviews, the three resulting estimates of total benefits are \$1,172,275.80; \$624,429.86; and \$399,104.28, respectively.

Benefit Analysis: Clients Assigned Positive, Training-
Unrelated and Non-Positive Dispositions

Twelve clients obtained employment unrelated to their training upon termination from CETA, and 36 others were assigned non-positive termination dispositions because post-CETA employment could not be verified by the employment service CETA unit. In addition, it was noted previously that one participant who was assigned a positive, training-related disposition would be treated as a positive, training-unrelated termination for purposes of benefit analysis. This participant was only in welding training approximately two months before obtaining related employment.

It will be assumed that no economic benefits from training will accrue to these 49 clients (the 13 treated here as positive, training-unrelated terminations and the 36 assigned non-positive dispositions). The dispositions assigned to these 49 participants upon their termination from CETA (with the exception of the client who was in welding training only two months) are not indicative of training-related benefits, and information from training files and interviews with seven of the clients does not appear to warrant a different assumption.

As mentioned before, it is difficult to see how CETA training aided the 13 clients (assigned positive, training-unrelated dispositions) significantly in obtaining, or

performing duties associated with, the unrelated jobs they entered upon termination from CETA. These jobs are shown in Table 9 in the previous chapter for 12 of the 13 trainees. The other client obtained initial post-CETA employment as a welder as indicated above. Of course, it is possible that some have benefited (or will benefit) subsequently from the CETA program by moving into occupations related to training. The assumption that this will not occur, however, is perhaps warranted as an additional offset for the assumption in the previous section that all clients in related occupations at times of interviews will continue in related jobs throughout the entire remaining average work life expectancy period. The types of jobs accepted upon termination from CETA by some of these 13 clients may also be an indication that their training skills are less marketable than those who obtained related employment initially.

There are more substantial reasons for being pessimistic with regard to possible training benefits for some of the 13 participants. Two of the clients in this group were interviewed one to two years following training. One of these had returned to the same pre-CETA waitress job after eight months in cooks and bakers training, and the other had been employed in two unrelated jobs following 10 months of cooking and baking training. Another of the clients in this group of 13 was deceased at the time an interview was attempted.

One of the 13 participants was only in general office clerk training for less than one month, and, as indicated several times above, one only attended welding training approximately two months. In addition, one participant, whose pre-CETA employment was as a maid, accepted a job as a "cleaner" after approximately four months in nurses' aide training.

The comments included in the training records of many of the 36 clients who were assigned non-positive dispositions provide a logical basis for assuming they will not benefit economically from the program. These comments were already discussed extensively in Chapter V. Five of the 36 trainees were interviewed, and only one was working in a related occupation. He had attended welding training for only approximately two months, and his records indicated he had received previous (non-CETA) training for this occupation. The information obtained from these five interviews represents the only post-CETA employment data available for the 36 participants who were assigned non-positive dispositions.

Benefit Analysis: Clients Assigned "Other Positive"
Dispositions or for Whom Termination
Information is not Available

Virtually no post-CETA employment data are available for the remaining 34 clients whose possible training benefits will be examined in this section. Twenty of these 34 trainees were not assigned final dispositions by the CETA unit of the employment service and also could not be located for interviews. In addition, 13 others were assigned "other positive"

dispositions upon termination from CETA, and one, who was assigned a positive, training-related disposition, was changed to the "other positive" category for purposes of benefit analysis.

Four of the 13 clients originally assigned "other positive" dispositions were placed in this termination category because they obtained CETA subsidized employment after leaving the training program. Although data regarding these CETA financed jobs are accessible, the only post-CETA (unsubsidized) employment information available for any of the 34 participants is that relating to the initial post-CETA job obtained by the one client originally assigned a positive, training-related disposition. When interviewed, this trainee was working in a different job which was funded by CETA and was therefore changed to an "other positive" termination for purposes of this analysis. One of the 13 participants originally assigned an "other positive" disposition was also interviewed and was still working in the same CETA financed position which she obtained upon termination from CETA.

In spite of the lack of post-CETA employment data for the 34 trainees, some method of imputing their economic benefits from training must be devised. In a sense, even short-run results have not been determined for any of these 34 participants. It is true that 14 of the 34 have been placed in the "other positive" termination category, but the implication of this disposition is that the client's CETA training has led to the

pursuit of additional training or schooling, through employment in a CETA funded job or entrance into the military service or an academic or vocational school on a full-time (unsubsidized) basis. It cannot be assumed that because of terminations for these reasons, however, that all 14 of these trainees will benefit economically from the program. At the same time, the reasons noted for this disposition do not necessarily suggest that these clients are any less likely to benefit than those for whom no dispositions at all have been assigned. It is as though these 14 participants remain in the unassigned category with the other 20 clients.

It might appear that benefits could be estimated for these 34 trainees on the basis of average expected results already projected for the other 80 participants from the total group of 114 clients with possible training benefits. If clients in the group of 34 could be expected to obtain the same benefits, on the average, as the other 80 trainees, however, the group of 34 and their related training costs could just as easily (and properly) be eliminated from benefit-cost comparisons in order to evaluate the program.

The contention here will be that there is reason to believe the results, on the average, will be lower for the group of 34 than for the other 80. This contention is based on the fact that a smaller percentage of clients in the group of 34 completed training programs. Only 38 percent (13 of 34) of the smaller group completed training whereas 51 percent (41 of

80) in the larger group completed. Based upon post-CETA employment information obtained for the group of 80 participants, this characteristic (training completion) appears to be an extremely important determinant of benefits from training.

Sixty-eight percent (28 of 41) who completed training from the group of 80 clients obtained related employment upon termination from CETA. Most of these participants (23) were interviewed one to two years later, and 78 percent (18 of 23) were still working in related jobs. Only three of the other 39 clients (eight percent) who failed to complete training obtained related employment upon termination from CETA, and only one of these was still in a related occupation when interviews were conducted with the three trainees one to two years later.

Estimated benefits for the group of 34 trainees will be based on estimates already determined for the larger group of 80 participants. The same average (per client) results will not be assumed, however. Because of the importance of training completion, the percentage of the benefits estimated for the larger group which will be imputed for the smaller group of 34 will be based on the ratio of training completions rather than the ratio of total clients contained in the two groups. Therefore, estimates of benefits previously calculated for the 80 trainees will be multiplied times .32 (13 divided by 41) in order to arrive at estimates of benefits for the 34 participants considered in this section.

The six benefit estimates calculated for clients assigned positive, training-related dispositions represent total benefit estimates for all of the other 80 participants because no training benefits were attributed to clients assigned positive, training-unrelated or non-positive dispositions. These six benefit estimates are \$1,418,894.30; \$758,090.47; \$486,306.02; \$1,172,275.80; \$624,429.86; and \$399,104.28. If 32 percent of each of these estimates is calculated, the six corresponding estimates of benefits for the group of 34 clients are \$454,046.18; \$242,588.95; \$155,617.93; \$375,128.26; \$199,817.56; and \$127,713.37, respectively.

Total Benefits for All 114 Trainees

If each of the six benefit estimates for the 80 participants considered in the first two sections of this chapter is combined with the corresponding estimate of benefits for the 34 clients examined in the above section, total benefit estimates for all 114 trainees can now be determined. Each estimate for the group of 34 is, of course, based on the same set of assumptions as the corresponding estimate for the group of 80 which was used to compute it. For example, the \$454,046.18 estimate for the 34 participants was based on 32 percent of the \$1,418,894.30 estimate for the larger group. Therefore, the assumptions used to determine the \$1,418,894.30 estimate are implicit in the \$454,046.18 estimate. If benefits included in each estimate of total benefits for the 114 clients are all to be based on the same set of assumptions, the corresponding benefit estimates for the two groups may be combined.

All benefit estimates are based on the same assumptions regarding the growth rate for the mean incremental wage rate at times of interviews (7.4 percent) and the remaining average work life expectancy (30 years). The \$1,418,894.30 estimate for the group of 80 and the corresponding estimate of \$454,046.18 for the group of 34 are also based on a mean incremental wage rate at times of interviews of \$1.17 per hour, a discount rate of eight percent, and an annual rate of unemployment of three percent. The estimate of total benefits for all 114 trainees based on these assumptions is therefore \$1,872,940.48.

The \$758,090.47 estimate for the group of 80 and the corresponding estimate of \$242,588.95 for the 34 participants are based on a mean incremental wage rate at times of interviews of \$1.17 per hour, a discount rate of 12 percent, and an unemployment rate of six percent. The estimate of total benefits for all 114 clients based on this set of assumptions is therefore \$1,000,679.42. The \$486,306.02 estimate for the larger group and the corresponding estimate of \$155,617.93 are based on a mean incremental wage rate of \$1.17 per hour, a discount rate of 16 percent, and an unemployment rate of nine percent. The resulting estimate of total benefits when these assumptions are used is therefore \$641,923.95.

The \$1,172,275.80 estimate for the group of 80 and the corresponding estimate of \$375,128.26 for the 34 trainees are based on a mean incremental wage rate at times of interviews of \$.97 per hour, a discount rate of eight percent, and an annual

rate of unemployment of three percent. The combination of these two estimates provides a total benefit estimate for all 114 clients of \$1,547,404.06. The \$624,429.86 and \$199,817.56 corresponding estimates for the two groups are based on a mean incremental wage rate of \$.97 per hour, a discount rate of 12 percent, and an unemployment rate of six percent. The resulting estimate of total benefits based on these assumptions is \$824,247.42. The \$399,104.28 and \$127,713.37 corresponding estimates assume a mean incremental wage rate of \$.97 per hour, a discount rate of 16 percent, and an unemployment rate of nine percent. These two estimates combine to yield a total benefit estimate for the 114 participants of \$526,817.65.

CHAPTER VII

BENEFIT-COST SUMMARY

In this chapter, the cost estimates of Chapter IV and the benefit estimates of Chapter VI will be brought together, and benefit-cost ratios will be calculated for the group of clients who terminated from the Pinellas County ISTP during the July 1, 1975 - June 30, 1976, time period. Twelve different ratios have been computed by comparing each of the six benefit estimates noted at the end of the last chapter with two different cost estimates. The purpose of this chapter is only to summarize and compare the benefit and cost estimates. The significance of these benefit-cost computations will be discussed in the concluding chapter.

In order to facilitate the summary of benefit-cost data and the calculation of benefit-cost ratios, Tables 10 and 11 have been constructed. The same six benefit estimates are shown in both tables, with each estimate preceded by the estimated mean incremental wage rate (at times of interviews), discount rate, and estimated annual rate of future employment used in its computation. It should be recalled that the difference

TABLE 10

ESTIMATED BENEFIT-COST RATIOS FOR CLIENTS WHO TERMINATED FROM PINELLAS COUNTY
ISTP, JULY 1, 1975 - JUNE 30, 1976: ESTIMATE OF EARNINGS FOREGONE
DURING TRAINING NOT INCLUDED IN COST ESTIMATE

Estimated Mean Incremental Hourly Wage Rate at Times of Interviews	Discount Rate	Estimated Rate of Future Unemployment	Benefit Estimate ^a	Cost Estimate	Estimated Benefit-Cost Ratio
\$1.17	8 percent	3 percent	\$1,872,940.48	\$312,852.18	5.99:1.00
1.17	12 percent	6 percent	1,000,679.42	312,852.18	3.20:1.00
1.17	16 percent	9 percent	641,923.95	312,852.18	2.05:1.00
.97	8 percent	3 percent	1,547,404.06	312,852.18	4.95:1.00
.97	12 percent	6 percent	824,247.42	312,852.18	2.63:1.00
.97	16 percent	9 percent	526,817.65	312,852.18	1.68:1.00

^aAll benefit estimates are based on the assumptions of an annual rate of growth of 7.4 percent for mean incremental wage rates at times of interviews and a remaining average work life expectancy of 30 years for the clients involved.

TABLE 11

ESTIMATED BENEFIT-COST RATIOS FOR CLIENTS WHO TERMINATED FROM PINELLAS COUNTY
ISTP, JULY 1, 1975 - JUNE 30, 1976: ESTIMATE OF EARNINGS FOREGONE
DURING TRAINING INCLUDED IN COST ESTIMATE

Estimated Mean Incremental Hourly Wage Rate at Times of Interviews	Discount Rate	Estimated Rate of Future Unemployment	Benefit Estimate ^a	Cost Estimate	Estimated Benefit-Cost Ratio
\$1.17	8 percent	3 percent	\$1,872,940.48	\$680,303.40	2.75:1.00
1.17	12 percent	6 percent	1,000,679.42	680,303.40	1.47:1.00
1.17	16 percent	9 percent	641,923.95	680,303.40	.94:1.00
.97	8 percent	3 percent	1,547,404.06	680,303.40	2.27:1.00
.97	12 percent	6 percent	824,247.42	680,303.40	1.21:1.00
.97	16 percent	9 percent	526,817.65	680,303.40	.77:1.00

^aAll benefit estimates are based on the assumptions of an annual rate of growth of 7.4 percent for mean incremental wage rates at times of interviews and a remaining average work life expectancy of 30 years for the clients involved.

between the \$1.17 mean incremental wage rate used in some cases and the \$.97 rate used in others is due to the difference in assumptions regarding the growth of trainee pre-CETA wage rates which would have occurred between the times of last pre-CETA employment and the times of interviews (if the trainees had not enrolled in the program).

It is the estimate of program cost used in computing the respective benefit-cost ratios which causes the two tables to differ. In Table 10, a cost estimate of \$312,852.18 is compared with each of the six benefit estimates in order to calculate benefit-cost ratios. In Table 11, the larger cost estimate of \$680,303.40 is used for each comparison, and, of course, smaller benefit-cost ratios are obtained for respective benefit estimates.

The \$367,451.22 difference between the two estimates of program cost represents the amount paid as "allowances to clients" to those trainees in the group examined. This payment should only be included as an economic cost to society, however, if it is reflective of foregone earnings (output) of participants while in the CETA program. To the extent that some trainees would otherwise have been unemployed during the time they were in the program (or would have earned less than the federal minimum hourly wage rate received while in training), it can be argued that something less than the entire \$367,451.22 amount should be included as a cost due to trainee earnings foregone. Some readers may therefore prefer to view the differences

between the respective benefit-cost ratios presented in Tables 10 and 11 as possible ranges of benefits per dollar of cost provided by the Pinellas County ISTP.

CHAPTER VIII

SUMMARY OF CLIENT CHARACTERISTICS AND PARTICIPATION IN VOCATIONAL TRAINING PROGRAMS

It was established in the introductory chapter that this study would focus primarily on benefits and costs related to training participants terminated from the Pinellas County ISTP during the year ended June 30, 1976. Most of the effort thus far has been devoted to this benefit-cost assessment of the program's efficiency. It should be emphasized at this point, however, that participants were not selected solely on the basis of their ability to benefit. If that were the case, a different group of trainees might well have been chosen.

Basically, the CETA legislation which led to the creation of the Pinellas County ISTP was designed to aid the "economically disadvantaged" segment of the population. The ability to benefit from training was one consideration in the selection of clients for the Pinellas County program, but admission was also based on need.

In this chapter, the characteristics of trainees terminated from the program during the July 1, 1975 - June 30, 1976, time period will be examined in order to allow some assessment of the client selection process and the importance of particular characteristics in achieving economic benefits from training. In addition, the participation of these clients in the various types of vocational training available to program members will be summarized and discussed. Some of the data to be included here have been presented in different forms and less detail in other chapters of the study. The purpose of this chapter is to bring these data together in one location and to provide the detail necessary for further analysis. Tables 12 and 13 have been constructed to help accomplish these objectives.

Client Characteristics

Table 12 contains characteristics for the 114 clients involved in vocational training and terminated from the Pinellas County ISTP during the year ended June 30, 1976. Characteristics have not been included for the other 37 participants terminated from the program during this time period who were only involved in work evaluation. Although the cost of providing work evaluation for these 37 clients was included in the benefit-cost calculations of this study, it was assumed that program-related benefits for these participants would be negligible and no attempt was made to quantify them.

TABLE 12

CHARACTERISTICS FOR 114 TRAINEES TERMINATED FROM PINELLAS COUNTY ISTP,
JULY 1, 1975 - JUNE 30, 1976, BY CETA TERMINATION CATEGORY^a

Characteristic ^b or Total		Positive, Training-Related Terminations ^c	Positive, Training-Unrelated Terminations ^c	Non-Positive Terminations	Other Positive Terminations ^c	Termination Information Not Available	Total
Total		31	13	36	14	20	114
Sex	Female	23	8	12	9	10	62
	Male	8	5	24	5	10	52
Age	18 and Under	3	3	2	4	2	14
	19-21	9	3	11	4	9	36
	22-44	16	5	19	5	8	53
	45-54	2	2	3	1	1	9
	55-64	1	0	1	0	0	2
Educ.	8 and Under	2	1	2	0	0	5
	9-11	7	9	16	5	12	49
	High School Grad. (or equivalent)	20	3	16	8	7	54
	Post High School	2	0	2	1	1	6
Aid for Dependent Children or Other Public Assistance		4	1	7	7	5	24
Economically Disadvantaged		27	12	31	14	19	103
Race	American Indian	0	1	0	0	0	1
	Black	3	4	11	7	4	29
	White	28	8	25	7	16	84
Spanish American		1	0	0	0	0	1

Continued

TABLE 12-Continued

Characteristic ^b or Total	Positive, Training-Related Terminations ^c	Positive, Training-Unrelated Terminations ^c	Non-Positive Terminations	Other Positive Terminations ^c	Termination Information Not Available	Total
Veteran	1	2	4	0	0	7
Handicapped	1	2	4	2	5	14
Full-Time Student ^d	3	2	1	0	1	7
Offender	0	3	10	1	3	17
Underemployed ^d	1	1	2	0	0	4
Unemployed ^d	30	12	34	14	20	110
Receiving Unemployment Insurance	4	2	1	0	2	9

Source: CETA intake and termination forms supplied by the Pinellas County School Board CETA unit, and interviews with Pinellas County ISTP participants.

^aTrainees were not necessarily terminated from CETA at the same times they were terminated from the skill training program. No CETA termination information was available for 20 of the 114 trainees because they were not assigned final CETA dispositions and also could not be located for interviews.

^bCharacteristics indicated in this table for the 114 trainees are those which existed when the participants were admitted to the CETA program.

^cThe characteristics of two clients initially assigned to the positive, training-related category have been transferred, in this table, to the positive, training-unrelated and "other positive" termination categories respectively.

^dClients who were full-time students when admitted to the program have also been included in underemployed and unemployed categories.

TABLE 13
PROGRAM MEMBERSHIP FOR 114 TRAINEES TERMINATED FROM PINELLAS COUNTY ISTD,
JULY 1, 1975 - JUNE 30, 1976, BY CETA TERMINATION CATEGORY^a

Training Program or Total	Positive, Training-Related Terminations ^b	Positive, Training-Unrelated Terminations ^b	Non-Positive Terminations	Other Positive Terminations ^b	Termination Information Not Available	Total
Total	31	13	36	14	20	114
Clerk, General Office	11	4	7	8	7	37
Auto Paint & Body Repair	5	3	2		4	14
Cooking & Baking	1	2	8	1	2	14
Auto Mechanics			6		3	9
Diesel Mechanics	1	1	6		1	9
Bookkeeping	3		1	2		6
Licensed Practical Nurse	4					4
Data Processing	2	1	1			4
Cosmetology	1		2		1	4
Welding	1	1	1			3
Accounting Clerk	1			1		2

Continued

TABLE 13-Continued

Training Program or Total	Positive, Training-Related Terminations ^b	Positive, Training-Unrelated Terminations ^b	Non-Positive Terminations	Other Positive Terminations ^b	Termination Information Not Available	Total
Keypunch	1		1			2
Nurses' Aide		1				1
Masonry				1		1
Commercial Art			1			1
Horticulture					1	1
Lands Maintenance					1	1
Electronics				1		1

Source: CETA termination forms and training files supplied by the Pinellas County School Board CETA unit, and interviews with Pinellas County ISTP participants.

^aTrainees were not necessarily terminated from CETA at the same times they were terminated from the skill training program. No CETA termination information was available for 20 of the 114 trainees because they were not assigned final CETA dispositions and also could not be located for interviews.

^bThe characteristics of two clients initially assigned to the positive, training-related category have been transferred, in this table, to the positive, training-unrelated and "other positive" termination categories respectively.

The client characteristic categories in Table 12 correspond closely with those shown in Table 5, on page 50. In Table 5, however, all 305 clients served by the Pinellas County ISTP during the July 1, 1975 - June 30, 1976, time period (including those involved only in work evaluation and those not terminated from vocational training before June 30, 1976) were considered when the occurrence of each characteristic was computed. The characteristics shown in Table 12 for only the 114 participants who terminated from training during the specified period are more pertinent for this analysis since benefits were only examined for this group. Moreover, additional detail has been provided in Table 12 by showing the occurrence of each characteristic within each of five CETA termination categories.

It should be pointed out again that trainees were not necessarily terminated from CETA at the same times they were terminated from the skill training program. The 20 clients whose characteristics are contained in the last of the five termination categories shown in Table 12 were never assigned final CETA dispositions and could not be located for interviews. It should also be noted that two trainees initially assigned to the positive, training-related category when terminated from CETA were transferred to other termination categories for purposes of benefit analysis. This method of treating these two participants will continue to be employed throughout this investigation of client characteristics. As a result,

the numbers of trainees included in the termination categories of Table 12 differ slightly from those in Table 7, on page 75

The breakdown of characteristics by termination category presented in Table 12 should allow the reader to obtain some insight with regard to attributes which lead more or less frequently to economic benefits from the training program. This can be accomplished by comparing the number of times a particular characteristic occurs in a specific termination category with the number of times it occurs in the group of all 114 trainees terminated and then considering the percentage of total benefits (for all 114 clients) attributed to participants in that termination category. Actually, when benefits were computed, some of the five termination categories were combined and attention was focused on three groups of trainees.

The 31 participants for whom characteristics have been included in the first column of Table 12 represent one of these groups. All 31 of these clients obtained training-related employment (other than CETA financed, public service jobs) upon termination from CETA. Twenty-six of these participants were located for interviews one to two years following terminations, and 19 of the 26 were still working in occupations related to training. Future benefits were projected for these 19 trainees and also for four of the five other clients in this category who could not be located for interviews. Approximately 76 percent of all benefit estimates for the 114 trainees who terminated from the Pinellas County ISTP during the year ended June 30, 1976, were attributed to participants in this category.

The second group of clients investigated when benefits were calculated was composed of the 49 participants whose characteristics are shown in the second and third columns of Table 12. This investigation led to an assumption of no training-related economic benefits for these 49 clients in the positive, training-unrelated and non-positive termination categories.

The third group examined included the 34 participants treated as "other positive" terminations or for whom no termination information was available. Characteristics for these clients have been presented in the fourth and fifth columns of Table 12. The remaining 24 percent of benefit estimates was attributed to this group of 34 trainees.

Sex, race, and education are three characteristics which appear particularly noteworthy when the three groups of participants described above are compared with the group of 114 containing all trainees terminated. The group of 114 was composed of 62 females (54 percent) and 52 males (46 percent). One of these 114 clients (one percent) was an American Indian, 29 (25 percent) were Black, and 84 (74 percent) were White. And 60 of the 114 participants (53 percent) were in the high school graduate (or equivalent) or post high school education categories when they entered the program, whereas 54 (47 percent) had only 11 or fewer years of education.

The percentage of female clients treated as positive, training-related terminations was much larger than the

percentage of male clients who were placed in this category. Twenty-three of the 62 female participants (37 percent) were included in this group of 31 trainees for whom the majority of benefits were estimated. Only eight of 52 male participants (15 percent) were treated as members of this group, however. Conversely, a much smaller percentage of all female participants (20 of 62 = 32 percent) was included in the group of 49 clients for whom no benefits were estimated. Twenty-nine of the 52 male trainees (56 percent) were placed in this group of 49. The remaining 31 percent of female participants (19 of 62) and 29 percent of male clients (15 of 52) were included in the group of 34 trainees to whom 24 percent of benefit estimates were attributed.

The percentage of White clients treated as positive, training-related terminations was much larger than the percentage of Black clients who were placed in this category. Twenty-eight of the 84 White participants (33 percent) were included in this group. Only three of the 29 Black participants (10 percent) were treated as members of this group of 31 trainees, however. Moreover, a smaller percentage of White participants (33 of 84 = 39 percent) was included in the group of 49 clients. Fifteen of the 29 Black trainees (52 percent) were placed in this group of 49. The remaining 27 percent of White participants (23 of 84) and 38 percent of Black clients (11 of 29) were included in the group of 34 trainees. (The percentages of White trainees mentioned here total to only 99 percent because of rounding.)

When examining educational characteristics, it is helpful to combine clients included in the high school graduate (or equivalent) and post high school education categories into one group and those with 11 or fewer years of education into another. It can then be observed that a much larger percentage of trainees with more years of education when entering training were placed in the positive, training-related termination category. Twenty-two of the 60 participants in the high school graduate (or equivalent) and post high school education categories (37 percent) were treated as positive, training-related terminations. Only nine of the 54 clients with 11 or fewer years of education (17 percent), however, were included in this group.

Twenty-one of the 60 participants in the higher education categories (35 percent) were placed in the group of 49, while 28 of the 54 clients with fewer years of education (52 percent) were members of this group. The remaining 28 percent of trainees in the higher education categories (17 of 60) and 31 percent of participants with fewer years of education (17 of 54) were included in the group of 34 clients.

A further examination of Table 12 reveals that only one of the 31 trainees in the positive, training-related group was handicapped, and none were categorized as criminal offenders. The group of 49 clients for whom no benefits were estimated included six of 14 participants (43 percent) who were handicapped and 13 of 17 offenders (76 percent).

At least one other characteristic in Table 12 deserves some comment at this point. Only 103 of the 114 trainees terminated were economically disadvantaged at the times they entered the program. It should be noted that the other 11 clients were selected through special provisions. Primarily, these were participants who were either Vietnam era veterans or handicapped.

It should be emphasized again at this juncture that all clients were selected, to a great extent, on the basis of need. Although it is assumed that all trainees qualified in this regard, the reader may want to consider whether participants who benefited economically from training were, in most cases, those who had greater needs. In the final chapter, this issue will be discussed briefly, and some of the characteristics of the general population in Pinellas County will be provided for comparisons with characteristics of the 114 trainees examined.

Client Participation in Vocational Training Programs

In order to determine which vocational training programs led more or less frequently to economic benefits for participants, Table 13 can be utilized in the same manner described for Table 12. Training program participation has been included in Table 13 for clients in each of the same termination categories shown in Table 12. In addition, of course, total participation in each training program has been provided for all 114 trainees terminated in the final column of the table.

A majority of the 114 clients were trained in one of three areas. Thirty-seven (32 percent) were clerk, general office trainees; 14 (12 percent) were trained in auto paint and body repair; and 14 (12 percent) were enrolled in the cooking and baking program.

In addition to being the type of training with the largest number of participants, the general office clerk program was responsible for the largest number of clients (11) who were treated as positive, training-related terminations. Thirty percent (11 of 37) of all clerk, general office trainees were members of this termination group for which 76 percent of benefits were estimated. Eleven general office clerk trainees (30 percent) were included in the group of 49 participants for whom no benefits were estimated, while the other 15 enrolled in this training program (41 percent) were members of the group of 34 clients to whom 24 percent of benefits were attributed. (Because of rounding, the percentages shown for general office clerk trainees above, and for some of the other training programs below, do not total to 100.)

The auto paint and body repair program placed five of 14 trainees (36 percent) in the group of 31 positive, training-related terminations; five clients (36 percent) in the group of 49; and four participants (29 percent) in the group of 34. Only one of 14 (seven percent) cooking and baking trainees was treated as a positive, training-related termination, whereas 10 of these 14 (71 percent) were included in the group of 49.

The remaining three of the 14 clients trained in cooking and baking (21 percent) were members of the group of 34 participants.

Two other programs with large numbers of trainees demonstrated very little success in placing clients in the positive, training-related termination category. None of the nine auto mechanics trainees were included in this termination category, and only one of the nine participants trained in diesel mechanics was treated as a positive, training-related termination. Some of the smaller programs were more successful in placing clients in this termination category for which the majority of benefits were estimated. Three of six bookkeeping trainees (50 percent), four of four trained as licensed practical nurses (100 percent), and two of four data processing participants (50 percent) were treated as positive, training-related terminations.

Before concluding these comments regarding training program participation, the importance of training completion should once again be stressed. This was discussed previously in Chapter VI. Twenty-eight of the 31 clients treated as positive, training-related terminations (90 percent) completed their respective training programs. Only 13 of the 49 participants for whom no benefits were estimated (27 percent), however, completed training.

CHAPTER IX

CONCLUSION

Although the benefit-cost computations presented in Chapter VII were generally favorable, the question regarding the efficiency of the Pinellas County ISTP (for the period examined) was left somewhat in doubt. Two of the 12 benefit-cost estimates reflected fewer dollars of benefits than of costs. Moreover, the assumptions employed in arriving at all 12 of these ratios can be debated.

The author of this study is aware of the limitations of the benefit-cost computations presented in Chapter VII. It was noted in the introductory chapter that these ratios, because of the assumptions required for their calculation, would only serve as a starting point for evaluating the Pinellas County program. Based upon knowledge of how these benefit-cost estimates were computed and consideration of other possible indirect and intangible benefits and costs, however, the author has reached a favorable conclusion with regard to the program's efficiency.

This final chapter will be devoted primarily to an explanation of this conclusion. In addition, some of the characteristics of ISTP participants will be compared with those of the general population in Pinellas County, and the question of whether clients who were most in need were able to benefit from the program will be discussed.

Efficiency of Pinellas County ISTP

The 12 benefit-cost estimates shown in Tables 10 and 11 (Chapter VII) range from a high of \$5.99:\$1.00 to a low of \$.77:\$1.00. An argument could be expressed in support of using each of these 12 ratios as a measure of the program's efficiency. Although the highest ratio of \$5.99:\$1.00 suggests the most optimistic view of program results, the author's favorable conclusion regarding the program is based, to a greater degree, on the fact that even the lowest ratio indicates estimated benefits equal to 77 percent of estimated costs.

This ratio was calculated by using the most pessimistic assumptions employed. An estimated rate of future unemployment of 9 percent was assumed for those clients expected to continue in training-related occupations, and a discount rate of 16 percent was used to convert expected future benefits to their present value on June 30, 1976. In addition, this lowest estimate employed the most liberal assumption regarding the growth which would have occurred in clients' pre-CETA wage rates if they had not entered the training program. As a result, the lowest estimated mean incremental wage rate at times of interviews (\$.97) was used in this computation.

Even with these rather conservative assumptions, however, the benefit-cost ratio for the program would have exceeded \$1.00:\$1.00 if an estimate of foregone trainee earnings had not been included in the estimate of program cost. This situation is illustrated by the last benefit-cost ratio shown in Table 10 (\$1.68:\$1.00). The \$.77:\$1.00 benefit-cost estimate includes a cost for foregone trainee earnings equivalent to the allowances received by participants while in the program. (Allowances were paid on the basis of the federal minimum wage rate for the number of hours spent in training.)

This estimate of the cost to society resulting from time devoted to training by ISTP clients will be considered unjustified by some readers. It can be argued that, where trainees would otherwise have been unemployed, there was no economic cost involved. Moreover, it has been argued that, even in cases where clients would otherwise be employed, there is no economic cost for society if other previously unemployed workers obtain jobs vacated by trainees entering the program (the "vacuum effect").¹

On the other hand, some writers have adopted the viewpoint that the inclusion of some cost for otherwise unemployed resources may be justified. The following quotation by Richard A. and Peggy B. Musgrave was cited previously in Chapter IV of this study: "Unless there are political constraints

¹Steve L. Barsby, Cost-Benefit Analysis and Manpower Programs (Lexington, Mass.: D. C. Heath and Co., 1972), p. 15.

which permit only one use, cost-benefit analysis should apply the concept of opportunity cost even where resources are otherwise unemployed."² It can also be argued that some amount should be imputed as an economic cost for the leisure time foregone by clients while participating in the program, even if they would not otherwise have been employed. This argument is only valid, however, if it is correct that clients received less satisfaction from training than they would have from the foregone leisure time.

The author is somewhat in sympathy with the arguments for including an estimate of cost for the time devoted to training by ISTP participants. In the first place, many of the clients might very well have worked if not enrolled in the program, and, in some of these cases, the jobs they (in effect) vacated might not have been filled by other workers who were previously unemployed. Moreover, it is also feasible to employ CETA trainees (who would not otherwise be employed) in other types of government manpower efforts instead of classroom training programs. The argument for including a cost for leisure time foregone also adds creditability to the use of allowances for clients as part of training costs. In other words, even if it is assumed that, in some cases, there was no lost production as a result of participants devoting their time to training, it can be argued that there was an intangible cost associated with their foregone leisure time.

²Richard A. and Peggy B. Musgrave, Public Finance in Theory and Practice (New York: McGraw-Hill, Inc., 1973), p. 161.

Now that the intangible cost of foregone leisure has been considered, it is also necessary to evaluate some of the possible intangible benefits provided by the Pinellas County ISTP. Chapter I of this study contained a quotation in which Steve L. Barsby noted five of the possible "noneconomic" benefits from government programs of this type. Two of these (the option for further education and training and the satisfaction as a result of achieving success in a chosen field)³ appear particularly relevant, based on information from ISTP client interviews. Several trainees interviewed were either involved in additional (post-CETA) training or education activities or were planning such activities for the future. In addition, numerous participants commented on their increased satisfaction in post-CETA occupations (relative to pre-CETA employment) and expressed gratitude for the opportunities provided by the CETA program.

The author feels that another possible intangible (and indirect) benefit deserves mention at this point. There may be some satisfaction obtained by members of society, other than trainees, as a result of knowing that they have contributed to the fairness of the economic system. Garth L. Mangum and John Walsh included the following statement in their book, A Decade of Manpower Development and Training:

It is possible to argue that a better trained labor force might spark economic growth or might allow more growth with less inflation, but it is by no means certain or proved. The primary justification for manpower programs,

³Barsby, Cost-Benefit Analysis, pp. 19-20.

including MDTA, rests upon a value judgment. The long-term objective of the American society has been the expansion of individual freedoms, achievable in a concrete sense only by broadening the range of choices available to each individual.⁴

Other indirect (but tangible) benefits and costs may be attributable to the Pinellas County ISTP for the time period examined and therefore deserve some consideration in the overall evaluation process. Barsby also included some examples of these types of benefits in the same quotation noted above (and in Chapter I): "Some of these benefits may accrue to society (and to the individual) through reductions in crime, increased productivity because of improved health, increased earnings of the children (the intergeneration effect), increased nonwage job benefits, and increased productivity of other resources."⁵ It seems probable that some of these types of benefits will accrue to society as a result of the skill training program in Pinellas County.

Barsby mentions another factor, however, which could be viewed as a possible indirect cost (or benefit reduction) for the Pinellas County program. He points out that the increase in qualified workers resulting from training may cause some "displacement" of other workers with less training and therefore reduce program benefits.⁶ This, of course, assumes that the

⁴Garth L. Mangum and John Walsh, A Decade of Manpower Development and Training (Salt Lake City, Utah: Olympus Publishing Company, 1973), p. 18.

⁵Barsby, Cost-Benefit Analysis, p. 19.

⁶Ibid., p. 18.

"displaced" workers are not employed elsewhere, or are employed in less productive efforts than previously. Other indirect costs, like the cost of Department of Labor overhead which could be apportioned to the Pinellas County program, appear to be rather inconsequential.

One possible remaining source of benefits from the Pinellas County ISTP has not been discussed here. It was mentioned in previous chapters that no benefits would be estimated (quantified) for the 37 clients who were only involved in work evaluation and did not actually enter vocational training. Indeed, it is not believed that these participants achieved benefits which were, to any degree, substantial. Nevertheless, it is possible that the work evaluation experience may have provided some useful knowledge which aided these clients in obtaining subsequent employment. For example, they may have left work evaluation at the ISTP better prepared for the testing associated with later job interviews.

All of the factors mentioned in the foregoing discussion were considered by the author in arriving at a favorable conclusion regarding the efficiency of the institutional skill training effort in Pinellas County. Due to the nature of the study, this conclusion is necessarily somewhat subjective. It is based, to a great extent, on the fact that the benefit-cost ratio computed by utilizing the most conservative assumptions still reflected estimated benefits equal to 77 percent of estimated program costs. It is also based on recognition

of the additional factors discussed in this chapter. The author believes that these additional considerations are favorable, on balance, and more than offset the excess of estimated costs over estimated benefits reflected in the conservatively calculated benefit-cost ratio.

It should also be stressed, at this juncture, that the program's performance was probably hindered by adverse conditions in the job market during the period that the participants were leaving training and through the times that interviews were conducted. The clients examined in this study terminated from the ISTP during the July 1, 1975 - June 30, 1976, time period, and interviews were held in the summer of 1977. The nation's average rates of unemployment during 1975, 1976, and 1977 were 8.5 percent, 7.7 percent, and 7.0 percent, respectively.⁷ The average rates of unemployment in Pinellas County during these three years were 9.8 percent, 8.5 percent, and 6.8 percent, respectively.⁸

Comparisons of Characteristics

It would be difficult to evaluate Pinellas County ISTP client selection procedures on the basis of comparisons between trainee characteristics and characteristics of the

⁷U.S., Department of Labor, Bureau of Labor Statistics, Monthly Labor Review 100 (Jan. 1977):78, and 101 (Dec. 1978):90.

⁸Fla., Department of Commerce, Division of Employment Security, Tampa-St. Petersburg SMSA Labor Market Trends, Feb. 1976 - Dec. 1977.

general population in Pinellas County. The general population characteristics are, of course, not necessarily representative of characteristics of program applicants. Nevertheless, a better perspective regarding the population from which trainees could have been selected may be obtained by comparisons of this type. Data for all of the characteristics shown in Table 12 (Chapter VIII) for ISTP clients are not readily available for the general population in Pinellas County. The information presented for Pinellas County in the following paragraph will allow some comparisons, however.

The estimated population in Pinellas County on July 1, 1975, was 666,595. Females represented 54 percent (358,907) and males 46 percent (307,688) of this total. The number of Blacks and other races was 51,014 (8 percent), whereas Whites numbered 615,581 (92 percent). It was estimated that 104,609 (16 percent) of the population were in the 0-14 age group; 78,904 (12 percent) were 15-24; 107,297 (16 percent) were 25-44; 151,462 (23 percent) were 45-64; and 224,323 (34 percent) were in the 65 and over age group.⁹ The median school years completed by residents of Hillsborough and Pinellas Counties in 1970 was 12 years, and the percentage of families with incomes below the poverty level in 1969, in these two counties, was 10.7 percent.¹⁰

⁹University of Florida, College of Business Administration, Bureau of Economic and Business Research, Florida Statistical Abstract: 1976 (Gainesville, Florida: The University Presses of Florida, 1976), pp. 14,16.

¹⁰University of Florida, Florida Statistical Abstract: 1977, pp. 566-67.

When the data presented in Chapter VIII for the 114 ISTP participants involved in vocational training are compared with the information noted above for Pinellas County, the similarities and differences with regard to the characteristics examined for both groups can be observed. The percentages of females and males are the same in both cases. The percentage of Blacks and "other races" is somewhat higher for the group of 114 ISTP clients than for Pinellas County in general (26 percent versus eight percent). Age group percentages are not easily comparable because the same age categories are not used. It can be observed, however, that a very large percentage of the Pinellas County population is in the 65 and over age group (34 percent in 1975), whereas no one in this age category was enrolled in the training program.

The median school years completed by the 114 ISTP clients examined in Chapter VIII was not previously computed. The data necessary for this calculation were included in Table 12 of Chapter VIII, however. The information presented there reveals that 47 percent of the 114 participants had completed only the eleventh year of school or less when entering the program. An additional 47 percent of the clients had completed the twelfth school year. The median school years completed by the 114 participants, when they entered training, was therefore 12. This is the same as the median school years which Hillsborough and Pinellas County residents had completed in 1970. A very high percentage of the 114 ISTP clients were economically

disadvantaged (90 percent). In most cases, this was the basis for admission to the program. Data presented above for 1969 indicated 10.7 percent of the Hillsborough and Pinellas County population were below the poverty level.

Before concluding this study, some discussion dealing with the ability of the Pinellas County ISTP to provide benefits for those clients who were most in need of training is warranted. It is assumed, of course, that all participants admitted to the program qualified on the basis of "need for training." It has already been mentioned that approximately 90 percent of the 114 ISTP trainees were economically disadvantaged. It must be noted, however, that some clients, because of special disadvantages, can be expected to encounter more difficulty in finding employment, if not in completing the training program.

Although less favorable results can be expected in such cases, it is important that these outcomes are emphasized. Indeed, as indicated in Chapter VIII, the institutional skill training effort was considerably less successful in providing benefits for Blacks and less educated clients than for Whites and better educated participants. In addition, there was even more difficulty in obtaining benefits through the program for former criminal offenders and handicapped trainees. It is realized that, to some degree, employer prejudices may be responsible for the inability of these clients to benefit from training. Nevertheless, if institutional skill training is not the solution for the employment problems of these participants, it must be noted and other remedies sought.

APPENDIX 1

PINELLAS COUNTY SCHOOL BOARD CETA, TITLE I
BUDGET AND EXPENDITURES BY LINE ITEM,
JULY 1, 1975 - JUNE 30, 1976

TABLE 14

PINELLAS COUNTY SCHOOL BOARD CETA, TITLE I BUDGET AND EXPENDITURES BY LINE ITEM, JULY 1, 1975 - JUNE 30, 1976,
 (Line Item Budget Figures are for Classroom Training and Work Experience combined. Line Item
 Expenditures are for each Program Category separately and are also combined.)^{a,b}

Cost Category or Line Item	Title I Budget (Regular ^b)	Classroom Training Expenditures (Regular ^b)	Work Experience Expenditures (Regular ^b)	Total Expenditures (Regular ^b)
Administration				
Salaries	\$100,360.00	\$65,020.97	\$27,866.02	\$92,887.07
Fringe Benefits	18,410.00	12,116.95	5,192.99	17,309.94
Travel	7,600.00	4,586.49	1,965.64	6,552.05
Other Costs (telephone, utilities supplies, postage, etc.)	<u>13,800.00</u>	<u>10,807.59</u>	<u>2,789.35</u>	<u>13,596.94</u>
Total Administration	\$ 140,170.00	\$ 92,532.00	\$ 37,814.00	\$ 130,346.00
Total Allowances to Clients	558,795.00	528,041.00	4,497.00	532,538.00
Total Wages to Clients	157,150.00		155,594.00	155,594.00
Total Fringe Benefits to Clients	12,880.00		6,933.00	6,933.00
Training Costs				
Instructors' Salaries	79,560.00	73,188.19		73,188.19
Fringe Benefits	14,170.00	12,970.00		12,970.00
Repairs and Servicing	1,650.00	376.25		376.25
Instructional Supplies and Materials	8,000.00	6,289.83		6,289.83
Laundry Service	<u>2,500.00</u>	<u>2,541.73</u>		<u>2,541.73</u>
Total Training Costs	105,880.00	95,366.00		95,366.00
Services to Clients				
Salaries	81,670.00	52,237.61	22,119.59	74,357.75
Fringe Benefits	14,410.00	9,669.25	3,623.60	13,293.02
Travel	14,300.00	4,562.39	5,991.81	10,553.48
Child Care	3,000.00	1,061.40		1,061.40
Tuition and Instructional Supplies	9,000.00	3,331.85		3,331.85
Medical	<u>1,000.00</u>	<u>133.50</u>		<u>133.50</u>
Total Services to Clients	<u>123,380.00</u>	<u>70,996.00</u>	<u>31,735.00</u>	<u>102,731.00</u>
Total Budget or Expenditures	\$1,098,255.00	\$786,935.00	\$236,573.00	\$1,023,508.00

Source: Compiled from Department of Labor CETA Financial Status Reports and accounting working papers supplied by Pinellas County School Board.

^aExpenditure figures include encumbrances as well as actual cash outlays.

^bSection 112, CETA, Title I funds are not included in the budget or expenditures.

APPENDIX 2

SUPPLY AND MATERIAL COSTS FOR CETA "SLOT-IN" TRAINEES AT
TOMLINSON ADULT VOCATIONAL CENTER, PINELLAS
VOCATIONAL TECHNICAL INSTITUTE, AND
DUNEDIN HIGH SCHOOL

(Although spacing, underlining, and capitalization have been changed slightly, the pages contained in this Appendix are primarily in the same form and punctuated in the same manner as the mimeographed source sheets which were obtained from the Pinellas County School Board.)

SUPPLY AND MATERIAL COSTS FOR SLOT-INS

FY-76

Tomlinson Adult Vocational Center

Certified Laboratory Assistant	\$160.00
Cosmetology	115.00
Dental Auxiliary	121.00
Licensed Practical Nurse	116.00
Medical Assistant	119.00
Business Education:	
Accounting Clerk	89.40
Clerk Typist	42.75
General Office Clerk	53.25
Receptionist	48.75
Secretary	58.70
Transcriptionist	41.75
Certified Laboratory Assistant	145.00
Commercial Art I	0.00
Commercial Art II	0.00
Commercial Art - Reproduction	0.00
Cosmetology	112.00
Dental Auxiliary	114.50
Drafting	35.00
Licensed Practical Nurse (Men)	68.90
Licensed Practical Nurse (Women)	107.50
Medical Assistant	109.50

Source: Pinellas County School Board. (Mimeographed.)

SUPPLY AND MATERIAL COSTS FOR SLOT-INS

FY-76

Pinellas Vocational Technical Institute

Watch Repair Technology	\$107.15
Radio Television Repair Technology	167.45
Air Conditioning Technology	253.94
Architectural Technology	187.90
Auto Body Repair Technology	246.22
Automotive Technology	707.27
Building Maintenance (Oren Douglas Ctr)	16.00
Business Education	61.10
Carpentry (Oren Douglas Ctr)	50.75
Civil Technology	223.02
Culinary Arts - Cooking and Baking	51.45
Diesel Technology	192.95
Drafting and Design Technology	87.35
Electrical Wiring (Oren Douglas Ctr)	29.85
Electro-Mechanical Technology	164.70
Electronics Technology	255.00
Horticulture Technology	110.40
Landscape Maintenance (Oren Douglas Ctr)	13.50
Licensed Practical Nurse	150.00
Major Appliance Repair	307.98
Plumbing (Oren Douglas Ctr)	48.00
Machine Trades	47.84
Masonry (Oren Douglas Ctr)	11.50
Motorcycle	223.10
Nurse Aide (Evening), Women	37.50
Orderly (Evening), Men	32.50
Welding	54.00 - 80.45

Source: Pinellas County School Board. (Mimeographed.)

SUPPLY AND MATERIAL COSTS FOR SLOT-IN

FY-76

Dunedin High School Night Program

Cosmetology

\$90.00

Source: Pinellas County School Board. (Mimeographed.)

APPENDIX 3

PINELLAS COUNTY ISTP CLIENT ELIGIBILITY AND RATING CRITERIA AND SAMPLE SELECTION COMMITTEE RATING SHEET

(Although spacing, underlining, and capitalization have been changed slightly, the pages contained in this Appendix are primarily in the same form and punctuated in the same manner as the mimeographed source sheets which were obtained from the Pinellas County School Board.)

1976

ELIGIBILITY CRITERIA

To be eligible for services and activities under the CETA Program, a person must be:

1. A member of a significant segment of the population and;
2. Be either
 - a. Economically disadvantaged and unemployed or;
 - b. Economically disadvantaged and underemployed.

(Poverty criteria will be applied to both family income and wage relative to family size for those who are working full-time but receiving wages below the poverty level.)

Significant Segments

1. High School Dropout - Persons regardless of age who have not completed a high school degree or equivalent, are not currently enrolled in an academic or vocational institution, and who do not intend to enroll themselves by their own means.
2. Sixteen thru 24 Year Olds Lacking Work Experience - Persons who are between the ages of 16 and 25 and who lack work experience defined as a minimum of two years sustained employment in an occupation or career development in an occupational group.
3. Vietnam Era Veterans - A veteran who served on active duty in the armed forces in Vietnam, Korea, or waters adjacent thereto between August 4, 1964, and January 31, 1973, and did not receive a dishonorable discharge.
4. Female Heads of Household - A family head of household living with one or more persons related to her by blood, marriage or adoption.
5. Persons 45 Years Old or Over - Self explanatory.

Source: Pinellas County School Board. (Mimeographed.)

SELECTION COMMITTEE

RATING CRITERIA

1. Education

Grade Achieved:	12	11	10	9	8	or less
Rating:	0	1	2	3	4	

For 8 or less, there must be expectation that person can perform with or without educational support.

2. Economically Disadvantaged - 1

3. Degree of Economic Disadvantagedness

% Range Below Poverty:	50-75%	25-50%	0-25%
Rating:	1	2	3

4. Head of Household - 1

5. Length of Unemployment/Underemployment

Length of Time:	15-39 wks.	39 wks. or longer
Rating:	1	2

6. Veteran Preference

Vietnam Era (Special)	- 2
Other	- 1

7. Older Worker Preference (45+ yrs.) - 1

8. Significant Segment Member Preference - 1

9. Work/Training Experience (including military where transferable to civilian)

Length of Experience:	2 or more yrs.	1-2 yrs.	0-1 yr.
Rating:	0	1	2

10. Positive Staff Comment - 1

Source: Pinellas County School Board. (Mimeographed.)

SELECTION COMMITTEE

RATING CRITERIA

Percent Range Below PovertyNON-FARM FAMILY

<u>Family Size</u>	<u>50 - 75%</u>	<u>25 - 50%</u>	<u>0 - 25%</u>
1	\$1295 - 1942	\$ 647 - 1294	\$0 - 646
2	1705 - 2557	852 - 1704	0 - 851
3	2115 - 3172	1057 - 2114	0 - 1056
4	2525 - 3787	1262 - 2524	0 - 1261
5	2935 - 4402	1467 - 2934	0 - 1466
6	3345 - 5017	1672 - 3344	0 - 1671
7	3755 - 5632	1877 - 3754	0 - 1876
8	4165 - 6247	2082 - 4164	0 - 2081
9	4575 - 6862	2287 - 4574	0 - 2286
10	4985 - 7477	2492 - 4984	0 - 2491

For family units with more than 10 members, compute percents from Poverty Income Guidelines.

FARM FAMILY

<u>Family Size</u>	<u>50 - 75%</u>	<u>25 - 50%</u>	<u>0 - 25%</u>
1	\$1100 - 1650	\$ 550 - 1099	\$0 - 549
2	1450 - 2175	725 - 1449	0 - 724
3	1800 - 2700	900 - 1799	0 - 899
4	2150 - 3225	1075 - 2149	0 - 1074
5	2500 - 3750	1250 - 2499	0 - 1249
6	2850 - 4275	1425 - 2849	0 - 1424

For family units with more than 6 members, compute percents from Poverty Income Guidelines.

Source: Pinellas County School Board. (Mimeographed.)

SELECTION COMMITTEE RATING SHEET

[illegible]

Source: Pinellas County School Board. (Mimeographed.)

APPENDIX 4

APPROXIMATE PERCENT OF TIME DEVOTED TO CETA ACTIVITIES BY REGULAR FLORIDA STATE EMPLOYMENT SERVICE EMPLOYEES

(Although spacing, underlining, and capitalization have been changed slightly, the pages contained in this Appendix are primarily in the same form and punctuated in the same manner as the mimeographed source sheets which were obtained from the Florida State Employment Service.)

BASE GRANT EMPLOYEES PROVIDING SUPPORT SERVICE
TO CETA/ES STAFF AT NO COST TO THE
PRIME SPONSOR

<u>Employee Title</u>	<u>Approximate Percent of Total Time Devoted to CETA Activities</u>
Manager, St. Petersburg	20%
Secretary to Manager, St. Petersburg	15%
Manager, Clearwater	5%
Special Services Supervisor, St. Petersburg	30%
Special Services Supervisor, Clearwater	15%
Area Labor Market Analyst	10%
Area Training Instructor	6%
Test Administrator	35%
Industry Services Representative	5%
3 Reception Control Stations	10%
1 Reception Control Station	50%
Telephone Operators	5%
Data Console Operators	5%

Additional Information

1976 FY Budgeted State Administrative Cost (Tallahassee)	12%
1977 FY Proposed Administrative Cost	8.5%
1976 FY Premises Rent Budgeted	\$9,363.00
Projected Cost 1976 & 1977	7,372.00

Source: Florida State Employment Service, St. Petersburg,
Florida. (Mimeographed.)

BIBLIOGRAPHY

Books

- Azzi, Corry F. Equity and Efficiency Effects from Manpower Programs. Lexington, Mass.: D. C. Heath and Co., 1973.
- Barsby, Steve L. Cost-Benefit Analysis and Manpower Programs. Lexington, Mass.: D. C. Heath and Co., 1972.
- Borus, Michael E., and Tash, William R. Measuring the Impact of Manpower Programs: A Primer. Ann Arbor, Mich.: Institute of Labor and Industrial Relations, The University of Michigan/Wayne State University, 1970.
- Brinker, Paul A., and Klos, Joseph J. Poverty, Manpower, and Social Security. Austin, Tex.: Lone Star Publishing, Inc., 1976.
- Galbraith, John Kenneth. The Affluent Society. New York: The New American Library, Inc., 1958.
- Hardin, Einar, and Borus, Michael E. The Economic Benefits and Costs of Retraining. Lexington, Mass.: D. C. Heath and Co., 1971.
- Kiker, B. F., ed. Investment in Human Capital. Columbia, S.C.: University of South Carolina Press, 1971.
- Mangum, Garth L. Employability, Employment, and Income. Salt Lake City, Utah: Olympus Publishing Co., 1976.

_____. MDTA: Foundation of Federal Manpower Policy. Baltimore, Md.: The Johns Hopkins Press, 1968.

Mangum, Garth L., and Robson, R. Thayne., eds. Metropolitan Impact of Manpower Programs: A Four-City Comparison. Salt Lake City, Utah: Olympus Publishing Co., 1973.

Mangum, Garth L., and Walsh, John. A Decade of Manpower Development and Training. Salt Lake City, Utah: Olympus Publishing Co., 1973.

McConnell, Campbell R. Economics: Principles, Problems, and Policies. 7th ed. New York: McGraw-Hill, Inc., 1978.

Mirengoff, William, and Rindler, Lester. The Comprehensive Employment and Training Act: Impact on People, Places, Programs. Washington, D.C.: National Academy of Sciences, 1976.

Musgrave, Richard A., and Musgrave, Peggy B. Public Finance in Theory and Practice. New York: McGraw-Hill, Inc., 1973.

O'Neill, Dave M. The Federal Government and Manpower. Washington, D.C.: American Enterprise Institute for Public Policy Research, 1973.

Schultz, Theodore W. The Economics of Education. London: Columbia University Press, 1963.

Wykstra, Ronald A., ed. Human Capital Formation and Manpower Development. New York: The Free Press, 1971.

Articles

Fullerton, Howard N. "A Table of Expected Working Life for Men, 1968." Monthly Labor Review 94 (June 1971):49-55.

Fullerton, Howard N., Jr., and Byrne, James J. "Length of Working Life for Men and Women, 1970." Monthly Labor Review 99 (Feb. 1976): 31-35.

Schultz, Theodore W. "Investment in Human Capital." The American Economic Review 51 (Mar. 1961): 1-17.

_____. "Reflections on Investment in Man." The Journal of Political Economy 70 (Supplement: Oct. 1962):1-8.

Weisbrod, Burton A. "Education and Investment in Human Capital." The Journal of Political Economy 70 (Supplement: Oct. 1962):106-123.

Whipple, William, Jr. "Principles of Determining A Social Discount Rate." Water Resources Bulletin 11 (Aug. 1975):811-819.

Public Documents

Comprehensive Employment and Training Act of 1973. Statutes at Large, vol. 87 (1973). U.S. Code, vol. 2 (1975).

U.S., General Accounting Office. Report to the Congress: Job Training Programs Need More Effective Management. July 7, 1978.

Other Sources Consulted

Curtis, Thomas D.; Spence, James G.; and Johnson, Thomas E. An Analysis of the Impact of CETA, Title I Classroom Training on Vocational and Technical Education. Tampa, Fla.: University of South Florida, /1976/.

Curtis, Thomas D., and Spence, James G. A Further Analysis of the Impact of CETA, Title I Classroom Training on Vocational and Technical Education. Tallahassee, Fla.: Florida State Advisory Council on Vocational and Technical Education, /1977/.

Economic Report of the President: 1978. Washington, D.C.: Government Printing Office, 1978.

Fla., Department of Commerce, Division of Labor and Employment Opportunities. Florida Labor Market Trends: Pinellas County, Mar. 1970.

Fla., Department of Commerce, Division of Employment Security. Pinellas County Labor Market Trends, Nov. 1975.

. Tampa-St. Petersburg SMSA Labor
Market Trends, Feb. 1976 - Dec. 1977;
Mar. 1977; Mar. 1978; Sept. 1978.

Fla., Department of Education, Advisory Council
on Vocational and Technical Education.
Annual Evaluation Report: 1975. Tallahassee,
Fla., 1975.

Matz, Fred. Accounting Coordinator, Pinellas
County School Board CETA Project, St.
Petersburg, Fla. Interview, Aug. 15, 1976.

Pinellas County-St. Petersburg Manpower Consortium.
"FY 1976 Comprehensive Manpower Plan."
Clearwater, Fla., 1975. (Mimeographed.)

. "The Comprehensive Employment and
Training Act (CETA) in Pinellas County."
Clearwater, Fla., 1976. (Mimeographed.)

University of Florida, College of Business Adminis-
tration, Bureau of Economic and Business
Research. Florida Statistical Abstract: 1976.
Gainesville, Fla.: University Presses of
Florida, 1976.

. Florida Statistical Abstract: 1977.
Gainesville, Fla.: University Presses of
Florida, 1977.

U.S., Department of Labor, Bureau of Labor Statistics.
Monthly Labor Review, Jan. 1977, Dec. 1978.

U.S., Department of Labor and Department of Health,
Education, and Welfare. Employment and
Training Report of the President: 1978.
Washington, D.C.: Government Printing Office,
1978.

Wall Street Journal, July 1, 1976.

Westat, Inc. "Continuous Longitudinal Manpower
Survey: Follow-up Report No. 1." Prepared
for Office of Program Evaluation, Employment
and Training Administration, U.S. Department of
Labor. Rockville, Md., 1978. (Mimeographed.)