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AUTHOR	Somers, Gerald G.; Stromsdorfer, Ernst W.
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ABSTRACT

This nationwide study to determine the cost-effectiveness of the Neighborhood Youth Corps Program (NYC) is based on participants from projects in operation during fiscal year 1965-66 and 1966-67. Out of the original 1,120 projects 60 were randomly selected, 20 from the three regions--north, south, and west. The sample size of the participants was 780 for the estimation of educational benefits and 676 for economic benefits. An interview survey technique was used to collect data, as well as a mail questionnaire and telephone contacts. Specific conclusions were: (1) The program had no significant effect on the number of high school grades completed, (2) Participants of the program who finished high school were more likely to continue their education after graduation, (3) The participants' earnings were enhanced more by encouragement to participate in the labor force than by increased skills and reduced unemployment, and (4) Negroes gained more from the program than any other ethnic group. (GEB)

A Cost-Effectiveness Study of the In-School and Summer Neighborhood Youth Corps

Gerald G. Somers, Project Director

Ernst W. Stromsdorfer, Principal Investigator

Center for Studies in Vocational and Technical Education

Industrial Relations Research Institute
The University of Wisconsin
Madison, Wisconsin 53706

July, 1970

A COST-EFFECTIVENESS STUDY OF THE IN-SCHOOL AND SUMMER NEIGHBORHOOD YOUTH CORPS

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PREFACE

The Neighborhood Youth Corps program is one of a number of Government programs designed to improve the quality of education and the performance of new entrants to the labor force. Its main functions are to reduce the high school dropout rate, improve the quality of the students' educational experience and help provide skills which will be of use in the labor market. The issue at hand is the extent to which this program has succeeded in fulfilling its legislative goals. How have the participants in the NYC fared, during and after their schooling, relative to those students of similar background and ability who have not taken part in the program? The purpose of this study is to provide answers to this basic question. To the extent that this study is successful in achieving its purpose, it should contribute to effective educational and labor market policy.

This study is nationwide in scope. It required the cooperation of several hundred widely-scattered school officials, Neighborhood Youth Corps project administrators, and field interviewers. Their cooperation and assistance was excellent even though almost all of the contact between them and the staff at the University of Wisconsin was by the relatively impersonal means of telephone and letter. It was truly an educational experience to work with this cross-section of the American educational system and Neighborhood Youth Corps Program.

The study authors wish to express their sincere thanks for the cooperation and assistance so willingly and straightforwardly given.

On a more immediate level, numerous persons have been instrumental in assisting in this study. Leslie Kish of the University of Michigan gave guidance in the original stages of planning the sample procedure. Charles D. Palit of the Wisconsin Survey Research Laboratory provided continuing assistance until all the problems of sampling procedure were ironed out. He is the author of Appendix I, A Description of the Sample Design for a Cost-Effectiveness Analysis of the In-School and Summer Neighborhood Youth Corps.

Roger A. Miller, Professor of Economics at the University of Wisconsin, provided guidance in developing the appropriate procedure for weighting the stratified national sample.

Teh-wei Hu, Associate Professor of Economics at the Pennsylvania State University deserves our special appreciation for his continuing advice and assistance throughout the course of the project.

Criticism and suggestions were given at various points throughout the study by Glen C. Cain, Sar A. Levitan, Charles Metcalf, Thomas I. Ribich, and Alice Rivlin. Thomas I. Ribich is Associate Professor of Economics at the University of North Carolina. Alice Rivlin is Senior Fellow at the Brookings Institution. Glen Cain and Charles Metcalf are members of the Department of Economics at the University of Wisconsin. Sar Levitan is Professor of Economics at the George Washington University. Needless to say, while these persons can take credit for many improvements in the study, the responsibility for any errors or omissions lies with authors.

The study was assisted by a large staff of research assistants, coders, and programmers. Gayle Lee and Sandra Wendling were the project secretaries. They were assisted by Millie Eichelberg. Jackie Greenberg, Sybil Better, Jane Haugh and Ann Yen were research assistants. Walter Tam and Eric So performed the necessary calculations. Rosalie Bennett and Linda Wiggen supervised the coding staff. The staff and facilities of the University of Wisconsin Data and Computation Center and the Social Systems Research Institute gave assistance in statistical computation.

Finally, the project was furthered at all stages by the assistance and encouragement of Betti Goldwasser, Gerald Fehd and Frances Wattenberg of the Manpower Administration, U. S. Department of Labor.

We would like to express our thanks to all these persons and organizations. We hope that our joint effort provides sound and useful answers to some of the questions facing educational and labor market policy. However, any errors or omissions are the responsibility of the authors.

Gerald G. Somers
Ernst W. Stromsdorfer

HIGHLIGHTS OF THE STUDY

Study Design and Methodology

Previous studies which attempt to measure the effect of the Neighborhood Youth Corps in achieving its program goals are ambiguous with respect to their respective conclusions as well as non-comparable in terms of study design.

Except for the present study, no cost-benefit or cost-effectiveness studies of the NYC based on a national sample exist.

The present study is a national sample of NYC participants from projects in operation during fiscal years 1965-66 and 1966-67. There were 1120 projects in operation during this time with a total enrollment of 333,548 participants enrolled one day or longer.

Sixty projects were randomly selected with probability of selection proportional to size of project. Twenty projects were selected from each of three regions--north, south and west.

A sample of 1200 was desired, with ten NYC participants (the experimental group) and ten control respondents from each of the 60 projects. The basic working sample, however, was 780 for the estimation of educational benefits and 676 for the estimation of economic benefits.

Numerous instances occurred in which estimates of project enrollments differed among local sponsor records, records kept at Regional Manpower offices, records kept at the Service Bureau Corporation and data reported in BWA-0051-A, Historical Detail Listing, Neighborhood Youth Corps, Highlights of Monthly Sponsor Activity Reports.

Cost data generally had fewer and smaller discrepancies among data sources than did the enrollment data.

Program performance data were collected by means of a field interview report and a school record data sheet. Incompleteness of school records made this data source unusable in the study.

Data on school performance generally had less interviewee error in it than did the data on labor market experience.

Statistical tests indicate that the NYC and the control samples can not be said to be from the same population. However, the two samples are quite similar with respect to basic socio-demographic variables.

The control group, therefore, is a comparison group. Strict cause and effect assertions between participation in the NYC and the indexes of performance cannot be made, therefore. However, this is a general

problem with respect to any study which does not incorporate a strict experimental model.

Issues with Respect to Costs

Social, governmental and private costs are measured in this study.

Costs are based mainly on Department of Labor, Neighborhood Youth Corps, Division of Program Review and Analysis, Ongoing and Terminated Projects--RY 66, For Week Ending Fiscal 1966, RPT 20073 and RPT 20119.

Social cost estimations based on government data are qualified by problems of shadow pricing and joint costs.

The sponsor share is subject to more conceptual error than is the federal government share. The federal government share is a more accurate measure of social economic costs than is the combined federal plus sponsor share.

From a private cost standpoint, the wages to the NYC participant represent both a benefit and the opportunity cost of foregone leisure, study time or home production.

If the NYC participant represents a type of structurally unemployed person, then wages paid to the participant contain an element of subsidy and overstate both social and private economic cost.

Issues with Respect to Benefits

Social, governmental and private benefits are measured.

Each of the benefit measures is partial index not only of NYC performance in general, but also is partial with respect to the specific outputs of the program, such as scholastic performance.

The major indexes of program performance--the probability of high school graduation and total post-high school before tax earnings--approximate the ideal measure of "before-after" program effects since a complete educational and labor market history was obtained for the high school years on each study respondent.

Cost Analysis

The statistical analysis of costs indicates that average and marginal cost based on the federal share represents the most reliable measure of social economic cost.

Marginal social costs for the combined in-school and summer project enrollments are $409 based on the federal share.

Average social costs for the combined in-school and summer project enrollments are $313 based on the federal share.

For the total sample, marginal social and average social cost based on the federal share for in-school project enrollment estimated separately are $422 and $368, respectively.

For the total sample, marginal social and average social cost based on the federal share for summer project enrollment estimated separately are $184 and $102, respectively.

When the total sample is separated into summer-only projects and in-school and summer projects combined marginal and average summer project costs exceed marginal costs of the combined in-school and summer projects.

Private opportunity costs are estimated at $758 for the total sample; $600 for participants who enrolled only in a summer project; $722 for in-school only enrollees; and $1014 for those who enrolled in both an in-school and a summer project.

Private and social direct out-of-pocket costs incurred by enrollees are estimated at $7.80 per month for in-school only enrollees and $28.94 per month for summer project only enrollees.

Estimates of Economic Benefits

The economic benefits of this study are monetary measures of benefit and do not include all economic benefits, whether monetary or non-monetary. Home production, for instance is not counted as a benefit.

The Neighborhood Youth Corps program does yield substantial net monetary benefits to its participants. However, this effect is selective among sex and ethnic groups. Negroes benefit more than whites, for instance.

The NYC as a whole does not return any net tax benefits to the federal government. Certain groups, particularly Negro females, do return a net tax benefit.

In-school NYC program component appears to yield the highest net labor market benefits rather than the summer component or a combined in-school and summer program.

Private economic benefits are generally less than social economic benefits, due to income and social security taxes.

The maximum length of participation whereby benefits will continue to accrue to an NYC participant is about 12 to 13 months.

Unweighted post-high school before tax earnings are a total of $4,159 for the NYC group for the total time this group was eligible to be in the civilian labor force, while the control group earned $4,247 during this time.

However, for a weighted regression model employing several socio-demographic variables, including a discriminant function, the NYC participant earned a net increment of $831 over his control group counterpart.

For the unweighted sample, NYC participants experienced a total of 1.73 months of unemployment during the period they were eligible to be in the civilian labor force after leaving high school, while the control sample experienced only 1.52 months of unemployment.

However, regression analysis of the study sample reveals that there was no net difference between the two groups in terms of total months unemployed.

The NYC group experienced 9.02 months of voluntary labor force withdrawal in the period they were eligible to be in the civilian labor force after leaving high school, while the control sample experienced 9.93 months of voluntary labor force withdrawal.

However, regression analysis reveals that, on net, the NYC sample experienced 2.30 months less voluntary labor force withdrawal than did the control group sample.

Male NYC participants earn $1,171 more than their control group counterparts while there is no statistically significant difference in earnings between the female NYC and control groups.

White NYC participants earn $1,013 more than their control group counterparts while Negro NYC participants earn $1,579 more than their Negro control group counterparts.

Most of the social monetary benefits gained by the program can be attributed to gains made by Negroes.

White male and white female NYC participants gain no statistically significant earnings benefits.

Negro male and Negro female NYC participants gain $1,182 and $1,217 more total earnings respectively, than do their respective control group counterparts.

Small sample sizes preclude definitive statements concerning American Indians, Mexican Americans and Puerto Ricans.

White NYC participants return no net tax benefit to the federal government while Negro NYC participants do.

A potential for inefficient investment decisions exists for Negro females since they yield high social monetary benefits but gain no net private monetary benefits.

Estimation of Educational Benefits: High School

While the commonsense premise upon which the NYC program is based seems correct on the surface, analysis suggests that the net impact of family income on the probability of high school graduation is zero or negative.

The unweighted probability of high school graduation is .8647 for the NYC sample and .8230 for the control sample.

Total grades of school completed for the unweighted total sample is 11.8 years for the NYC group and 11.7 for the control group.

In contrast to this experience, weighted regression models employing a set of selected independent variables indicate that for the dummy variable formulation of NYC status no net increase in the probability of high school graduation occurs for NYC participants. Nor do NYC participants complete additional years of high school, on net, when compared with their control group counterparts.

Male NYC participants are less (5.9 percent) likely to graduate from high school than are their control group counterparts. There is no difference in the probability of high school graduation between NYC and control females.

However, when the NYC status variable is scaled according to the number of months a respondent participates in the NYC, small but positive benefits accrue to the NYC.

For each month of enrollment in the NYC, the NYC participant increases his probability of graduation from high school by .23 of one percentage point.

Also, each month in the NYC leads to an increase of about one or two days of additional high school education.

Again, it is the Negro male and female NYC participants who gain the most from the NYC program. They are 8.2 percent and 12.5 percent more likely to graduate, respectively, than are their respective control group counterparts.

White NYC participants of either sex gain no net increase in the probability of graduation.

American Indian NYC participants are 14.6 percent more likely to graduate than their NYC counterparts while Mexican American NYC participants are 21.2 percent less likely to graduate compared to their control counterparts.

When the total NYC is disaggregated according to types of program participation, it is still the case that participation in the NYC yields no net educational benefits. However, Negro NYC enrollees who participate in both an in-school and a summer program component are about 15 percent more likely to graduate from high school than are their control group counterparts.

Estimation of Educational Benefits: Post-High School

For the total sample of high school graduates, NYC participants are 12.6 percent more likely to attend some type of college than are their control counterparts. They are 6.5 percent more likely to acquire some type of post-secondary education other than college when compared with their control counterparts.

This effect, given high school graduation, may be due to the increased earning abilities of the NYC group.

White NYC participants are 10.4 percent more likely to attend college than are their control counterparts but there is no difference in the probability of college attendance between the Negro experimental and control groups.

Mexican American NYC participants are 49.4 percent more likely to attend college than are their respective control counterparts. However, for other sex and ethnic groups there is no difference between the NYC and the control groups.

For each additional month of NYC participation, the NYC participant increases his net probability of college attendance by about 1.5 percent.

However, length of stay in the NYC program has no net effect on the probability of attaining post-secondary education.

The NYC as an Investment

Based on the federal concept of cost and the average length of time available for participation in the civilian labor force, the monetary social average rate of return is 114.8 percent and the social marginal rate of return is about 55.9 percent.

In present value terms, for the above measurement concepts, the social average net present value of monetary benefits per NYC participant is $704 while the marginal net present value of monetary benefits per NYC participant is $300.

Total social average benefits amount to about $235,000 for the operation of the NYC during fiscal years 1965-66 and 1966-67.

Total social marginal benefits amount to about $100,000,000.

Thus the NYC program appears to pay off well in monetary terms.

The social average net present value per NYC participant in an in-school only program is $670 with a social average rate of return of 132.6 percent.

The summer only program yields no net monetary returns.

The in-school and summer combined program alternative yields a social average net present value per NYC participant enrolled of $542 with a social average rate of return of 138.2 percent.

There are no net monetary governmental benefits even though the program has resulted in an increase in the national income.

The average private rate of return to the total sample for the average length of time available for civilian labor force participation is 224.0 percent. The marginal private rate of return is 171.6 percent under the above benefit stream assumption.

The private average net present value for the total sample is $728 while the private marginal net present value is $463.

In cost-effectiveness terms, an expenditure of about $26 per month based on federal cost concepts results in an increased probability of graduation from high school of about .6 of one percent per month enrolled.

The same expenditure results in an increase of about one to two days of high school attendance per month enrolled.

A total average cost expenditure of $313 results in an increase in the average probability of college attendance of about 17.6 percent for the total sample.

A total marginal cost expenditure of $409 results in a marginal increase in the probability of college attendance of about 12.6 percent for the total sample.

Female NYC participants tended to have better jobs than males in terms of higher hourly wage rates, high socio-economic status of the job and larger total earnings.

Negroes averaged more months in the NYC than whites and their hourly wage rates, total earnings and average socio-economic status of their NYC jobs were higher than for whites in this sample.

The overwhelming majority, usually 70 to 80 percent report positive attitudes toward the NYC and indicate positive expectations with respect to the effect of the NYC on their high school performance and labor market performance after high school.

For educational benefits there was an inconsistent relationship between program expectations of the NYC participants and the actual impact of the NYC on graduation rates and years of school completed.

However, expectations and objective benefits were consistently related with respect to labor market benefits.

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CHAPTER I

INTRODUCTION

A. Statement of the Problem

The in-school and summer Neighborhood Youth Corps (NYC) programs were established by Congress in the Economic Opportunity Act of 1964 and its 1967 Amendments. The purpose of the in-school component is to provide employment and earnings to students who are potential dropouts due to economic reasons. Students currently attending school and those who are about to resume school attendance may enroll. The main intent of the summer NYC program is to provide employment and earnings for disadvantaged young people in the hope that this will encourage them to continue school in the following fall.

There are also other goals and benefits of these programs which are measurable and should not be neglected. They include the potential increase in scholastic performance, increase in school attendance, and increase in employment and earnings after high school graduation.

An orderly evaluation of the Neighborhood Youth Corps requires that the following questions be answered:

a) What are the goals of the NYC?

b) What are the procedures adopted to achieve these goals?

c) What are the most appropriate indexes to measure the effectiveness of the different procedures in achieving NYC goals?

d) To what extent have these goals been achieved, as measured by the indexes of program performance?

e) What are the relative costs of achieving a particular goal or set of goals?

f) To what extent should social funds be reallocated among competing goals and programs in light of the relative performance achieved for each program?

Answers to these basic questions should: (1) further the efficiency of government expenditures; (2) raise the general level of social well-being; and (3) contribute to methodology and analytical tools for the evaluation of manpower policies.

B. Program Goals to be Measured

The basic, yet untested, assumption underlying the NYC program is that economic deprivation is a major causal factor contributing to the high school dropout rate. It is clear that there is an opportunity cost (in terms of foregone earnings) in high school attendance, and among disadvantaged groups there may be an inverse relation between the business cycle and school attendance.[1] To the extent that the relationship between economic deprivation and dropout rates is significant, the existence of the NYC program should result in an increase in high school attendance and graduation rate. Next, an increase in the level of education should result in an increase in earnings and a decrease in unemployment, other things equal. In addition, if the NYC programs also improve work habits and skills, independent of the level of education, future employment

[1] See, for instance, Burton A. Weisbrod, "Preventing High School Dropouts," in Robert Dorfman, Editor, Measuring Benefits of Government Investments, (Washington, D. C.: The Brookings Institution, 1965), p. 120 ff.

and earnings should be enhanced. The questions posed for resolution by this study, then, are the following: To what extent have the in-school and summer NYC programs

(1) resulted in a reduction of dropout rates (or an increase in graduation rates) from high school?

(2) enabled program participants to experience greater employment and earnings after leaving the NYC program?

Related to (1) above are the following additional questions: To what extent have the in-school and summer NYC programs resulted in

(3) improved school attendance?

(4) improved scholastic performance?

(5) an increase in self confidence and improved self image of the program participants?

C. Problems of Research Design

The most appropriate manner to estimate the degree of goal and benefit achievement is to establish a procedure in which potential NYC participants are taken from a given population of students eligible for the program. Persons in this population are then randomly assigned to the experimental (NYC) and a control (non-NYC) group. Next, appropriate indexes of measurement for the program objectives must be established and the experience of the two groups should be standardized for additional minor differences in socio-demographic characteristics between the groups. The measures of program performance should also be taken both

before and after the period of participation or non-participation in the NYC program.

Unfortunately, neither this study nor past studies of the in-school and summer NYC program have utilized this ideal study design in every aspect. In some cases, there has been a failure to use a more appropriate technique even when it would have been possible to do so. But, as in the present case, the failure may also stem from the fact that surveys are conducted after operating programs are underway, and this often precludes the possibility of choosing a more appropriate control group or of measuring program outcomes in the most appropriate conceptual manner.

D. A Survey of the Methodology and Findings of Past Studies of the In-School or Summer NYC

This section summarizes the methods and principal conclusions of past studies of the in-school and summer NYC in order to provide a background for understanding the procedures adopted and the problems encountered in the present study.

Study [15] also reviews the findings of many of the studies below. A variety of approaches has been used in an effort to evaluate the effectiveness of the in-school and summer NYC. These range from studies which use no control or comparison group at all (see [1] in the bibliography at the end of this chapter) to studies such as [10] and [13]which do employ comparison groups. Some studies, for example [14], concentrate heavily on a description of the participants' experience within the NYC, and seek to determine effectiveness of the program by determing the participants' own evaluation of the program. Some studies, such as [10], have no post-

high school follow-up period. None of the studies attempts to control for differences in socio-demographic characteristics among the experimental and control groups through the use of multiple regression analysis, although one study [9] does use analysis of variance for a limited number of variables such as sex and IQ, and study [13] uses an experimental design with random assignment of participants to the NYC and control groups. Such a procedure reduces, if it does not eliminate, the need for control of socio-demographic characteristics. Two of the studies, [8] and [14], are descriptive studies of program characteristics rather than program evaluations. Some of the reports are of the case study type, such as [5], [11], [13] and [14], while others, e.g., [10], measure effectiveness based on a national sample of participants. None of the studies presents a cost-effectiveness analysis.

Specific Methods and Findings. The conflicting conclusions reached in many of the studies are partially due to these methodological differences. The study of the Grand Rapids, Michigan NYC by the General Accounting Office [1] attempts to evaluate the effectiveness of the in-school NYC in achieving the program's objective of dropout reduction. However, the study has two methodological drawbacks. First, no control group is used. Second, there is no control for intervening socio-demographic and other institutional influences. Such control is needed in order to achieve an estimate of the net effect of the NYC program. In contrast, the GAO study compares the gross NYC dropout rate against the historical dropout rate of the Grand Rapids

school system. Upon making this historical juxtaposition and observing that as of the time the NYC began, dropout rates consistently rose in Grand Rapids, they conclude that "the NYC in-school and summer components had apparently done little to alter this trend."[2] This conclusion cannot be supported by the model used in the analysis. It would also be incorrect to claim that the effects of the NYC would be positive had the dropout rates for the school district decreased. With no control group and no adjustment for intervening socio-demographic and historical events, little can be said about the effectiveness of the program in this instance.

The study by Howard [4] is mainly an administrative evaluation which describes the activities of the summer NYC program during 1966. However, it asserts that "the summer NYC program was markedly successful in influencing youth to return to school." Unfortunately, the study does not present the statistical evidence or methodological discussion which would permit the reader to assess this conclusion concerning the net effect of the program.

The Pittsburgh Public Schools studies [11] and [12] conclude that the in-school NYC program has had a salutary effect on reducing dropout rates. This conclusion is reached on the basis of a comparison, by

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[2]Comptroller General's Report to the Congress, Effectiveness and Administrative Efficiency of the Neighborhood Youth Corps Program Under Title IB of the Economic Opportunity Act of 1964 - Grand Rapids, Michigan, U. S. Department of Labor, B-130515, June 17, 1969, p. 1. (Italics in the original.)

school, of gross dropout rates of the NYC participants and the remaining high school population. There is no mention in the analysis of the potential problem of self-selectivity bias of NYC participants and of the fact that the NYC participants and the remaining student body do not necessarily come from the same socio-demographic population. Yet, the study data suggest that the two groups may be from different populations. As Table 1 shows, based on gross dropout rates there is a tendency toward an inverse relationship between the holding power of the school and the net advantage of the NYC program in reducing dropouts. However, these are gross relationships and cannot in themselves conclusively demonstrate the effectiveness of the NYC program in reducing dropouts. However, if it is assumed that the population of each school, including the NYC participants, is relatively homogeneous, and if you assume that the schools with high holding power are comprised of individuals having higher socio-economic backgrounds, then one might conclude that the NYC program was effective, especially for students in lower socio-economic categories. However, these assumptions are not well warranted. Therefore, it is better to control for intervening socio-demographic characteristics which affect dropout rates between the two groups in order to obtain a net measure of the effect of the NYC program.

The Chicago study of the NYC [5] is similar in methodology to the Pittsburgh study. Gross NYC dropout rates are compared against the gross dropout rates of the general student body. Again, the conclusion

TABLE 1

HOLDING POWER STUDY OF PITTSBURGH HIGH SCHOOLS

School	Holding Power in percent	Difference Between Non-NYC and NYC Dropout Rates in percentage points
Allerdice	94.1	- 1.32
Washington, (Voc. Tech.)	86.3	4.49
Carrick	78.9	3.53
Langley	78.2	3.32
South Hills	78.1	.84
Peabody	77.9	1.56
Westinghouse	74.1	4.25
Perry	72.2	3.18
Arsenal (Voc. Tech.)	70.8	5.99
Allegheny	65.0	10.21
South	63.6	4.01
Connelley (Voc. Tech.)	61.0	- .60
Schenley	59.1	9.86
Gladstone	54.3	7.40
Oliver	54.0	17.05
Fifth	47.5	13.01

The overall dropout rate for Non-NYC students is 4.19 percent higher than for NYC students. Only Allerdice, which has the greatest holding power, and Connelley have slightly higher dropout rates for NYC. Oliver shows a 17.05 percent higher dropout rate for Non-NYC enrollees.

Source: Pittsburgh Public Schools, Division of Occupation, Vocational and Technical Education, "Neighborhood Youth Corps Holding Power Study, School Year 1965-66," May, 1967.

reached is that the NYC has strong holding power in keeping students in school. However, the Chicago study also does not solve the general problem of self-selection bias for the NYC group. This bias is present in all such studies, including the present cost-effectiveness study. In short, it may be that the students who join the NYC, other things equal, may be those who are less likely to drop out. The only way to avoid this problem of self-selection bias is through a controlled experimental design. When such an experimental design is not possible, the self-selection bias must be frankly recognized, and an effort must be made to utilize such measures of motivation as are available to adjust for this bias. Beyond this one can only estimate the differences in results which can be attributed to socio-demographic differences between the NYC participants and the comparison group.

The Los Angeles County study [9] for the year 1965-66 does attempt to control for the effect of sex and IQ in a comparison between an experimental and a control group. It carefully specifies the set of hypotheses to be tested. Unfortunately, the study did not control for race, family income or past dropout behavior of the student. The NYC sample was not a random sample of Los Angeles County NYC participants. Also, the control group for this study is similar to that of the previous studies--that is, it is a random sample of students taken from the remaining student body from which the NYC participants originate. The socio-demographic characteristics of the NYC and the control group differed markedly on the basis of IQ, prior dropout experience, race, family income, and employment status of family head. Thus, even

though there were study controls for sex and IQ, the effects of other important variables were not fully taken into account.

There were statistically significant positive differences in favor of the NYC group for post-NYC school attendance in the Los Angeles study. There was no significant difference between the NYC and the control group in terms of post-NYC grade point average. This finding may be due to the fact that there was insufficient control for the effects of intervening variables, since the authors do report that the rate of increase in grade point average was greater for the NYC than for the control group. If this was an effect of the NYC program and not just due to the fact that the NYC group was regressing toward the mean, then a more complete statistical model might have picked up the difference.

The NORC study by Robert J. McNamara and his associates [10] is based on a national sample of NYC participants. The method of NYC project selection and NYC participant selection is similar to that used in the present cost-effectiveness study. The selection of the control group is also similar. Part I of the study is a description of the NYC participants, their NYC experiences, and an evaluation of their NYC experience. Part II concentrates more on measuring the effects of the NYC program, such as its impact on school adjustment, attendance and grades. The authors tend to interpret the NYC in a positive light; however, most of their analysis is based on broad, general comparisons between the NYC participants and the control group. And, there is no post-high school follow-up period for the study.

In an effort to determine the ultimate effect of the NYC in reducing dropout rates, the study relies on such things as the NYC participants' own assessments of how common it is to quit high school before graduating.[3] However, students' answers to such questions and their actual behavior with respect to high school completion are not necessarily the same. Student attitudes do not constitute decisive evidence that the NYC program is being effective even though there is undoubtedly some correlation between these attitudes and eventual success in graduation. In short, this study is of interest in terms of discovering differences in attitudes, expectations and expected behavior among the NYC and control groups, but given the large number of variables used in the study, the absence of multiple regression analysis makes it very difficult to draw unambiguous conclusions as to the relative net effects of all these variables. Thus, it is difficult to assess the NYC program in a clear-cut fashion, though the evidence presented argues for a positive effect of the program. The conclusions of this study should be tested by further regression analysis, especially since the study represents a national sample of NYC participants and control members.

The Robin study [13] is a case study of Negro NYC participants in two cities, Detroit and Cincinnati. It is notable in that an experimental

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[3]Robert J. McNamara, et al., The Neighborhood Youth Corps' In-School Enrollee, 1966-67: An Evaluative Report, (Part II), National Opinion Research Center, University of Chicago, March, 1968, p. 205.

design employing random participant assignment was used in the Cincinnati component of the study. Applicants to the NYC program were randomly assigned to the NYC project or to a control group.

The results of this study for Detroit and Cincinnati are mainly negative in tone. The NYC did not appear to reduce dropout rates, improve educational attitudes or aspirations, attitudes toward work, or increase the likelihood of finding employment. Since a random assignment to the NYC and the control group was used in Cincinnati, these results suggest that the NYC program in this city was not effective. This conclusion is further strengthened since Robin also controlled for several additional independent variables. However, the conclusions for Detroit are not as well substantiated since the control group was of a somewhat higher economic status and the tabulations controlled for the effect of only two or three socio-demographic variables at a time. The results for any particular community can be greatly affected by peculiar local procedures, personnel problems and environmental conditions.

In summary, it can be said that, the results of the studies cited above still leave unanswered the question as to whether or not the NYC program is fullfilling its legislative objectives on a national scale. The reasons for this are several. Except in the case of the McNamara NORC study, the studies are restricted to particular communities and they are non-comparable among themselves. Though the control groups used were probably the best available under the circumstances, the studies generally fail to control adequately for differences in

socio-demographic characteristics among the NYC and control groups. Only the McNamara study [10] is based on a national sample; however, it includes no follow-up period to test actual dropout behavior. The rest of the studies are case studies and do not provide evidence as to the overall nationwide effects of the NYC program.

E. Summary of Study Content and Procedure

Basic reliance in the present study will be on multiple regression techniques to measure net program effects. Cost-benefit and cost-effectiveness analysis will be used to relate project costs to the benefits of the NYC program.

The plan of this study is as follows: Chapter II presents the study design and discusses problems of data and methodology. Chapter III provides a comparative analysis of the NYC and control sample's characteristics and post-NYC performance. Chapter IV provides an analysis of project costs. Chapter V is a statistical analysis of economic benefits. Chapter VI is a statistical analysis of educational benefits. Chapter VII will analyze the NYC as an investment. Chapter VIII describes the experiences of the NYC sample while they were enrolled in the NYC. Chapter IX provides a summary and conclusion.

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CHAPTER II

THE STUDY DESIGN

A. Description of the Study Design

This study uses multiple regression techniques and cost-effectiveness analysis to investigate the costs and benefits of the in-school and summer Neighborhood Youth Corps (NYC). Costs and benefits are estimated in private terms, for society and for the federal government. Measures of costs and benefits are gained from unpublished government data, a field questionnaire and a school data record sheet.

The Cost-Effectiveness Model. Cost-effectiveness analysis for the NYC program must be applied in two contexts, depending upon the economic decision to be made. The first decision is one of determining whether the costs and returns to the program justify its continued operation. To answer this question one must compare average total costs (including fixed costs) with average benefits. If, at an acceptable social discount rate, the present value of average benefits is equal to or greater than the present value of average total costs, then the continuation of the program is justified.

Next, if continuation of the NYC program is justified on an average cost-benefit comparison, or, if the decision has been made to continue the program even if such is not the case, there is the additional question of the appropriate allocation of social resources or federal

government resources between the NYC program and all other competing social or governmental programs. In order to make this allocation decision, marginal costs (the extra cost of enrolling one additional NYC participant) must be compared with the marginal (extra) benefit accruing to that additional NYC participant. If the marginal net present value of benefits of the NYC program is greater than that of some other manpower program, such as the Job Corps, then resources should be shifted from the Job Corps to the NYC, other things being equal.

Since both types of decision making may be relevant in an evaluation of the NYC program, average and marginal cost-benefit analysis will be performed in Chapter VII.

The Nature of the Study Sample. A stratified random sample of 60 in-school and summer NYC projects was selected from the national population of 1120 in-school and summer projects in operation during the 1965-66 and 1966-67 fiscal years. This sample of 60 projects was stratified equally among three geographic regions--north, south, and west--in an effort to ensure a sufficient representation of American Indians and Mexican Americans in the sample.[1] Within each regional stratum, 20 projects were selected such that the probability of selection of a project was proportional to the size of the project. Next,

[1]The definitions of north, south and west conform to those in the County and City Book, 1967, p. viii.

within each of the 60 sample units 15 names of NYC participants were randomly chosen from the roster of the total NYC participants who were members of an "ultimate area" within each sample unit. This ultimate area was either a single high school or a set of no more than four high schools located in a given county or school district within the sample unit. As with the sample unit itself, the ultimate area was selected such that its probability of selection was proportional to its size. From this sample of 15 participants selected from the ultimate area it was hoped that on the average at least ten persons would be located. A discussion of the actual rate of response is contained in Appendix IV.

Next, the control sample was selected within each ultimate area. The total roster of high school students in attendance during the 1965-66 and 1966-67 fiscal years served as the initial population from which the control group was chosen. The time period for selection was the coterminous school year if an in-school NYC program was in operation. The time period was the school year immediately preceding if a summer NYC program was in operation. This school population was sampled so that approximately twice as many eligible students were selected as were needed for the sample of ten desired. Eligibility for presence in the control sample was established in two stages. First, the person selected from school files had to become age 16 at some time during the period the NYC project in question was in operation. Once this criterion was met, the field interviewers

established whether or not the person had ever been in the NYC. If he had, he was eliminated from the control group. As a third step, the person had to conform to the economic definition of a "disadvantaged person" established in the Manpower Administration's "Definition of the Term Disadvantaged Individual." Table 2 describes the family size/income criterion.

In many cases, as was discovered through the interview process, these income criteria were more stringent than those actually practiced by NYC project administrators in admitting individuals into NYC projects. More liberal standards were in effect both before and possibly after the directive was established in the fall of 1965.[2] Also, it was sometimes the case that few if any persons in an ultimate area could be found who would qualify for the control group on income grounds since every person who did so qualify had already been in the NYC program. In such cases, in an effort to increase the size of the control group in an ultimate area, the field interviewers were allowed

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[2] See, for instance, Comptroller General's Report to the Congress, Need to Increase Effectiveness of the Neighborhood Youth Corps Program for Aiding Students and Unemployed Youths in Cleveland, Ohio, U. S. Department of Labor, B-163096, March 15, 1968, p. 22. The General Accounting Office reported that approximately ten percent of the enrollees on the project from October 1, 1965 to August 19, 1966 had not met the federal government eligibility criteria. For June and July, 1966, the estimate was that ten percent of the enrollees exceeded the family income constraint, with no rationalization for this situation existing in the personal files of the project enrollees. This figure was 6.2 percent from a sample of enrollees inspected in the Detroit NYC project. See Comptroller General's Report to the Congress, Need for Improvements in Certain Neighborhood Youth Corps Program Operations in Detroit, Michigan, U. S. Department of Labor, B-162001, December 26, 1968, p. 25.

TABLE 2

THE DISADVANTAGED PERSON: INCOME
IN RELATION TO FAMILY SIZE

Family Size	Income: Non-Farm	Per Capita Income: Non-Farm	Income: Farm	Per Capita Income: Farm
1	$1,600	$1,600	$1,100	$1,100
2	2,000	1,000	1,400	700
3	2,500	833	1,800	600
4	3,200	800	2,200	550
5	3,800	760	2,700	540
6	4,200	700	2,900	483
7	4,700	671	3,300	471
8	5,300	662	3,700	462
9	5,800	644	4,100	455
10	6,300	630	4,400	440
11	6,800	618	4,800	436
12	7,300	608	5,100	425
13 or more	7,800	600 or less	5,500	423 or less

Source: U. S. Department of Labor, Manpower Administration Order No. 2-68, Dated February 8, 1968. Subject: Definition of the Term Disadvantaged Person.

to depart from the income guidelines by as much as $300 in every family size category. This is a deviation from the original income guideline but it is more stringent than the average of $648 excess in family income allowed for the control group in the Detroit study by Robin.[3] This relaxation of the family size/income guideline contributes to some bias in the nature of the control group. However, since the income guidelines set down by the Department of Labor did not apply over the entire two year fiscal time period, the bias is mitigated somewhat across the sample as a whole. In fact, in some cases this deviation from the guidelines is a move in the proper direction and moves the control group closer to the average NYC participant. These increased income constraints were first announced by the Department of Labor in the fall of 1965, but persons already in the program were allowed to stay on. As of the spring of 1966, however, the new criteria were applied to all persons in the program.

The socio-demographic characteristics of the experimental (NYC) and control sample are discussed in Chapter III and the question of potential bias in the control sample is further discussed there. Appendix I describes the sampling procedures used.

B. Data Problems

NYC-16 Forms. Early in the genesis of the study it was hoped that a national data bank of NYC-16 forms stored on tapes with the Service

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[3] Robin, op. cit., p. 7.

Bureau Corporation in Washington, D. C. could be used to establish the random samples of NYC participants from each ultimate area and to provide detailed and corroborative data on specified socio-demographic characteristics of the sample participants. However, in the course of investigating this data source it was discovered that the records for fiscal years 1965-66 and 1966-67 were so incomplete that only 15 of the 60 areas had NYC-16 rosters sufficiently complete for use in sample selection. For instance, in ten projects no valid NYC-16 records at all were reported. In the remaining projects, there were wide divergencies between the enrollment totals reported in BWA-0051-A, Historical Detail Listing, Neighborhood Youth Corps, Highlights of Monthly Sponsor Activity Reports and the data from the Service Bureau Corporation. For example, in one project the Historical Detail Listing included 739 project participants while the data at the Service Bureau Corporation recorded 44 verified NYC-16 forms. In another case, the data at the Service Bureau Corporation had only one verified NYC-16 form for a project reporting 560 participants based on the Historical Detail Listing. The source of these divergencies apparently stems from the following conditions:

(1) In the early stages of the NYC, data instruments and data reporting schema were apparently not standardized by the Department of Labor. This view was expressed by numerous NYC project sponsors;

(2) Some local project directors concentrated most of their efforts on administering the project to the relative detriment of record keeping and reporting; and,

(3) Some NYC-16 records were lost (or mislaid) either at the local project, in transit from the local project to Washington, D. C., or once they arrived at Washington, D. C.

It is our understanding that the records for fiscal year 1967-68 are of considerably higher quality.

As a result of the inaccuracies in the enrollment rosters at the Service Bureau Corporation, only twelve of these sets of records were used in the selection of the ultimate areas and of the NYC participants. No socio-demographic data were extracted from these NYC-16 records. Major reliance in the selection of ultimate areas and in drawing the sample of 15 NYC participants was placed on the records of the local NYC project sponsor. In no case did a local sponsor refuse to cooperate in this endeavor. Cooperation, in fact, was excellent across the board.

C. The Problem of the Control Group

The validity of this type of study relies heavily on the degree to which the control group and experimental group can be said to be drawn from the same population. As indicated above, the control group of this study is similar to the experimental group in that it:

(1) is drawn from the same ultimate area, the high school or high schools, from which the experimental sample is drawn;

(2) conforms to the legal age requirement for entrance into the NYC program; and

(3) conforms, but for the exception noted above, to the legal income requirement for entrance into the program.

However, there is no necessary guarantee that a control sample so selected will correspond to the experimental group in terms of psychological, motivational or other personality or socio-demographic characteristics. To some extent, the use of multiple regression analysis can help standardize for these differences among the characteristics of the two groups.

One particular statistical device which is used in this study to help control for differences between the experimental and control sample is a discriminant function.[4] This discriminant function permits an estimate of the probability that a respondent included in the study could have been a participant in the NYC, based on those socio-demographic and attitudinal variables which are used to estimate this function. The use of this function in equations used to measure program benefits will help compensate for the lack of a true experimental design in which students would be randomly assigned to either the NYC or the control group.

Five studies of the NYC are used to display examples of different control groups. The study done by Gerald D. Robin in Cincinnati randomly selected its experimental and control group from a list of NYC applicants. Since the NYC program in Cincinnati was limited in size and applicants

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[4]For an example of another use of the discriminant function technique see Lydia Fischer Laumann, "Effects of Project Headstart, Summer, 1965: A Second Look at the Equality of Educational Opportunity Study," Discussion paper 47-69, Institute for Research on Poverty, University of Wisconsin, Madison, Wisconsin, August 1969.

were in excess of allowable program size, applicants were assigned randomly to either the control or experimental groups. This procedure seems most likely to eliminate the possibility of self-selection bias which may result in systematic differences between the experimental and control groups. Unfortunately, this procedure was not possible for the present study.

The other studies listed in Table 3 used control groups which appear to incorporate a number of differing biases.

The Chicago study and Pittsburgh Public Schools study, in effect, used as a control group the student body of the schools from which NYC enrollees were drawn. Table 4 shows differential dropout rates by NYC participation and general school enrollment for Pittsburgh. These are gross rates unadjusted for any socio-demographic characteristics. This study does not correct for the possibility of self-selection bias in NYC enrollment or in possible selection bias interjected by program administrators who might be prone to select the most "deserving," "less troublesome," or "better students" among the potential NYC enrollees within each school. The data in Table 4 would suggest that at least one of these two types of bias may exist. There is an inverse relation between the dropout rate for the school and the dropout rate for the NYC enrollees. If there is a systematic selection bias across the school district, then the observed gross positive effect of the NYC program in Pittsburgh is open to question. For example, of those high school students who reach the tenth grade, a plurality of those students

TABLE 3

TYPES OF EXPERIMENTAL AND CONTROL GROUPS
USED IN FIVE IN-SCHOOL NYC STUDIES

	Study	Experimental	Control
1.	Pittsburgh Public Schools Study	All NYC participants who had not yet graduated from high school.	Remaining student body of the entire city high school system.
2.	Robin Study	<u>Cincinnati Study</u>	
		Persons selected randomly from a list of applicants to the summer program and allowed to enter the programs as New Summer Enrollees. Negroes only.	Applicants to the summer program not allowed to enter the program by random selection from the same list as the experimental group. Negroes only.
		<u>Detroit Study</u>	
		NYC summer only participants and NYC participants active in the program at the time of sample selection. Negroes only.	Applicants rejected because they failed to meet the financial requirements. Family income for this group was no more than $1,500 above the income cutoff defined as poverty level for that family size. Negroes only.
3.	Los Angeles County Study	NYC participants for whom before and after performance measures were available.	A random sample of students drawn from the high schools from which the NYC sample was selected.
4.	Chicago Study	All NYC participants.	Remaining student body of the schools from which NYC participants were drawn.
5.	McNamara, <u>et al.</u>, NORC Study	Random national sample of NYC participants.	Remaining students drawn from same schools as NYC participants and who generally conformed to requirements for enrollment in the NYC.

Source: See bibliography to Chapter I.

TABLE 4

NEIGHBORHOOD YOUTH CORPS: HOLDING POWER STUDY
PITTSBURGH PUBLIC SCHOOLS 1965-66

School	9,10,11,12 Enrollment	NYC Enrollees	Net Enrollment	% of Students On NYC	Non-NYC Dropouts	NYC Dropouts	% of Dropouts Non-NYC	% of Dropouts NYC
Allerdice	2,398	72	2,326	3.01	34	2	1.46	2.78
Allegheny	1,066	184	882	17.26	134	9	15.10	4.89
Arsenal (Voc. Tech.)	408	35	373	8.58	33	1	8.85	2.86
Carrick	1,152	79	1,073	6.86	65	2	6.06	2.53
Connelley (Voc. Tech.)	626	69	557	11.02	85	11	15.30	15.90
Fifth	976	177	779	18.14	131	6	16.40	3.39
Gladstone	600	140	460	23.33	57	7	12.40	5.00
Langley	1,404	199	1,285	8.48	75	3	5.84	2.52
Oliver	855	162	693	18.95	131	3	18.90	1.85
Peabody	2,293	132	2,161	5.76	132	6	6.11	4.55
Perry	1,314	126	1,188	9.59	85	5	7.15	3.97
Schenley	1,757	216	1,541	12.29	209	8	13.56	3.70
South	1,427	180	1,247	12.61	134	11	10.68	6.67
South Hills	2,291	141	2,150	6.15	140	8	6.51	5.67
Washington (Voc. Tech.)	469	61	408	13.01	25	1	6.13	1.64
Westinghouse	1,905	184	1,721	9.66	120	5	6.97	2.72
Total	20,941	2,077	18,864	9.92	1,590	88	8.43	4.24

Source: See bibliography to Chapter I.

TABLE 4 --Continued

School enrollment and dropouts from A Study of School Holding Power School Year 1965-66 using Grades 9, 10, 11, and 12.

NYC enrollment from NYC files covering Summer Program 6/28/65 - 9/3/65 and In-School Program 9/16/65 - 6/24/66.

All post-graduates were eliminated from calculations.

who dropout from tenth grade on do so in the tenth grade.[5] The entrants to this grade will contain a significant number of students who are not yet age 16. Yet on an age basis, at the period of operation for this sample of programs, NYC enrollees had to be age 16, and hence would not be highly represented in this grade. Of course, the misrepresentation will be worse for the ninth grade where high drop out rates also occur. Thus, without at least correcting for this tendency, a biased impression of the effect of the NYC on reducing the dropout rate is likely to result when the NYC population is compared against the remaining total high school population. In short, without incorporating a variable or set of variables in the study to account for possible selection bias, the student body of schools from which NYC enrollees are drawn would not be an optimal control group.

Robin's study of the Detroit NYC program uses as a control those applicants who were rejected because they failed to meet the statutory financial requirement for program participation. However, this control group is ill-suited for testing the efficacy of the NYC program.

Robin reports that the average family income for the controls exceeded the NYC financial requirements by only $648. And, he reports that average family income as a function of family size never exceeds the NYC financial requirements for any family size by as much as $1000. But what is crucial

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[5] See Daniel Schreiber, Holding Power/Large City Schools Systems, Project: School Dropouts, National Education Association, Washington, D. C., 1964. Table 12, p. 29. Schreiber reports that of all those students who dropout in grades 10, 11, and 12, 42.8 percent of these dropout in grade ten. The probability is about .70 that a tenth grader will graduate. It is about .94 that a twelfth grader will graduate for the cities represented in this study. These data all relate to the 1963 graduating class.

is average per capita income. Average family size differs considerably among the experimental and control group. It is 7.0 family members for the year-round NYC participants, 6.5 for the summer-only NYC participants and 5.3 for the controls.[6] As shown in Table 5, average per capita income differs considerably. This is bound to have an effect on the study results, especially since the distribution of socio-demographic characteristics between the two samples varies considerably. For example, the unemployment rate of control group fathers, it is 2.7 percent while for the summer-only experimental group is 16.0 percent and for the year-round experimental group it is 13.3 percent. Only 3.0 percent of the parents of the control group reported being on welfare or social security while the percentages were 17.2 and 34.8 for the year-round and summer-only experimental groups.[7] Thus, if there is a positive relationship between family income and the high school retention rate, the control group selected by Robin does not appear to be ideal.

Finally, the McNamara, et al., NORC study uses a control group which is very similar to the one used in the present cost-effectiveness study, thus, it suffers from the same shortcomings as does the present control group. The McNamara study does not use multiple regression analysis or any technique such as the discriminant function to help adjust for the differences between the NYC and control sample.

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[6]Robin, op. cit., Table 9, p. 54

[7]Robin, op. cit., Table 4, p. 44.

TABLE 5

AVERAGE ANNUAL FAMILY INCOME, BY SIZE OF FAMILY AND AVERAGE PER CAPITA INCOME BY SIZE OF FAMILY IN DOLLARS, DETROIT NYC STUDY

Type of Sample	Family Size									
	2-3[a]		4		5		6		7[c]+	
	Mean Income	Per Capita	Mean Income	Per Capita	Mean Income	Per Capita	Mean Income	Per Capita	Mean Income	Per Capita
Year Round NYC	1832	733	2350	588	2825	565	3140	523	4138	517
Summer Only NYC	1917	767	2258	564	2687	537	3173	529	4011	501
Control	2807[b]	1123	4103	1026	4493	899	4873	812	5734	717

Source: Based on Gerald D. Robin, An Assessment of the In-Public School Neighborhood Youth Corps Projects in Cincinnati and Detroit with Special Reference to Summer-Only and Year-Round Enrollees, National Analysts, Inc., Final Report, February, 1969. Table 11, p. 57 and Table 1-II.

Notes: a) assumes an average family size of 2.5.

b) assumes an average NYC income constraint of $2250.

c) assumes a family size of eight.

D. Methodological and Data Problems: Costs

The intent of this study is to measure the social costs, private costs and costs to the federal government as these costs are incurred by the existence of the NYC program. All costs must be considered as opportunity costs, that is, economic goods or services which must be given up by an individual or society in order to acquire some other good or service.

The social costs of this study are composed of the resource outlays made by the federal government and the local NYC sponsors, plus any opportunity costs incurred by the NYC participant during his stay in the program.

Two broad problems exist when one attempts to measure the social costs of the NYC program. The first deals with the problem of measuring the social value of the ten percent sponsor share. The second problem deals with federal reimbursement of the sponsor for the use of certain sponsor facilities.

The Sponsor Share. The federal expenditure represents an actual outlay for the federal government and is a cost to the federal government. However, there is some question as to the validity and accuracy of the cost measure of the sponsor share. There are three problems involved here. First, if the sponsor, often a school district, has excess physical capacity, the cost to the sponsor for using this excess capacity is zero up to the limit of the designed capacity. Second, if a sponsor input, such as a school building, is used to

simultaneously produce both a sponsor output and an NYC output, the marginal cost of using that input for the NYC project is zero. Finally, even when there are no joint inputs or excess capacity, many of the inputs to the NYC program do not have market prices so that the prices of these inputs must be estimated or "shadow priced." The combined result of these three factors is likely to be an overstatement of true total costs (sponsor plus federal) as well as an overstatement of total social costs. Shadow pricing and the joint cost problem will be discussed further below.

Federal Reimbursement for Sponsor Inputs. An issue separate from the ten percent sponsor share concerns the federal reimbursement of the sponsor for use of certain sponsor inputs, such as building space. Again, the three issues of possible excess capacity, joint inputs and shadow pricing arise.

The problem is made more complex because cost to the federal government is not necessarily the same as cost to the sponsor. A rental payment to a sponsor can be an overestimate of the true cost to the sponsor even though it might cost the Federal government more to rent the same facilities on the open market. For instance, if a school system has excess building capacity, the marginal or extra cost of using that excess capacity is zero up to the limit of designed capacity, as indicated above. If the federal government does not have access to that excess capacity, it must pay a positive price in the market for comparable space. Thus, the alternative cost to the federal government justifies the payment of a rent to the school system, even

though the true marginal cost to the school system may be less than that rent. As long as the federal government pays the school system less or no more than it would have to pay in the market, then this payment is rational from the standpoint of the federal government. To the extent that the school system has excess capacity, it receives a windfall gain. In fact, since the federal government has not rented in the market but has rented from the school district, then, if excess capacity exists in the school district, some or part of the rental payment is a transfer payment and not a social cost.[8] Thus, it is reasonable to assume that total federal costs may also overstate this portion of the social cost of the NYC program. The same result would arise if the federal government reimbursed a sponsor for the use of a joint input which was being employed to produce sponsor output not associated with the NYC as well as NYC output.

Shadow Pricing. Even though the sponsor is required by law to contribute ten percent of the total cost of the NYC project, the sponsor's share can be in the form of goods in kind which are then "shadow-priced" in negotiations between the local NYC sponsor and federal government officials.[9] The federal regulations are not

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[8] A transfer payment is defined as a payment for which no compensating service has been rendered. Its effect is to redistribute income.

[9] See Roland N. McKean, "The Use of Shadow Prices," in Samuel B. Chase, Jr., Editor, Problems in Public Expenditure Analysis, Studies in Government Finance, (The Brookings Institution: Washington, D. C., 1968).

very explicit about procedures for this shadow pricing.[10] Thus, considerable arbitrariness can creep into the estimate of the sponsor's share. And, it is not at all inconceivable that different shadow prices could be attached to the same set of real resources being used in different projects across the nation. Of course, this problem affects the measures of marginal costs based on total (federal plus sponsor share) costs as well.

Table 6 indicates the range of price estimates on classroom space which occurred in the establishment of the resource value of the sponsor's share of NYC project operation in the greater Los Angeles area. The estimates range from $1.60 per day per classroom to $40 per day per classroom. The General Accounting Office felt that a figure of $5.25 per day per classroom would be most reasonable, based on a 20 day month.[11]

Because of these differences in estimates of shadow prices, the resulting differences in estimates of total attributed costs can be large. For instance, for two NYC projects in the Los Angeles area,

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[10] See, for example, Federal Procurement Regulations (Second Edition, FPR Amendment 42, April 1968), Part 1-15, Contract Cost Principles and Procedures and Subpart 1-14.2 Principles and Procedures for Use in Cost-Reimbursement Type Supply and Research Contracts with Commercial Organizations, pp. 1501-1520.

[11] Comptroller General's Report to the Congress, Review of the Community Action Program in the Los Angeles Area Under the Economic Opportunity Act, Office of Economic Opportunity, B-162865, March 11, 1968, pp. 39-41.

TABLE 6

DIFFERENTIAL SHADOW PRICE ESTIMATES OF THE VALUE OF CLASSROOM SPACE, GREATER LOS ANGELES AREA

Educational Organization	Rate Per Day Per Classroom
Los Angeles Unified School District	$10, $34, and $40
Los Angeles County School Districts:	
Willowbrook School Districts	$6, and $9
Compton City School Districts	$5
Compton Union High School District	$1.50
Archdiocese of Los Angeles	$3.60 and $6

Source: Comptroller General's Report to the Congress, Review of the Community Action Program in the Los Angeles Area Under the Economic Opportunity Act, Office of Economic Opportunity, B-162865, March 11, 1968, p. 40.

the Government Accounting Office's estimate of total value of contributed classroom space was $318,309 while the estimate of the Los Angeles Unified School District was $1,048,500, a difference of $730,191.[12]

In conclusion, it appears that the need to shadow price the sponsor inputs which are contributed in-kind or reimbursed by the federal government creates a potential bias in the estimate of sponsor share and total (federal plus sponsor share) costs.

Joint Costs. In addition to the shadow pricing problem, it seems clear that much of the sponsor input into the NYC program is really of the nature of a joint cost or joint input. In such situations, the

[12] Ibid., p. 41.

input is being used to simultaneously produce two or more separate outputs. For instance, space in a currently operating school may be contributed to house local NYC sponsor staff. The total cost of operating the physical plant of the school is then prorated among the various outputs, including the NYC program, yet, it may cost no more to operate the physical plant after the presence of the NYC project than it did before.

Two types of overestimation of costs can enter the analysis. First, a positive price may be put on in-kind resources contributed by the sponsor as its share of project costs when, in fact, the marginal cost of this resource use is zero. This results in an upward bias in the estimate of sponsor share. Second, when the federal government reimburses a sponsor for indirect costs, the resource input in question may be a joint input, thus resulting in an upward bias in the measure of economic costs of the NYC project in question as distinct from accounting or financial costs to the federal government. This latter situation is not unlikely.[13]

The problem of joint costs affects the cost-benefit analysis in two ways. First, as is discussed below, there is no non-arbitrary way of prorating joint costs to arrive at non-arbitrary measures of total cost and average cost. Since we do not know what judgments may have been made when the sponsors prorated joint costs, we have to accept whatever upward bias is present in the total costs reported

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[13] Ibid., p. 30 ff.

for the sponsor share as well as in the federally reimbursed sponsor costs. This situation exists for the measures of marginal cost also, however, the conceptual problem of proration is handled differently.

Issues in Prorating Joint Costs. There are two points of view with respect to the problem of proration when marginal cost-benefit comparisons are being made. The first advises against prorating. The second argues that proration is possible. The first point of view is supported by such persons as Hitch and McKean and Enthoven.[14] They argue that the occurrence of joint costs does not affect the determination of marginal costs. And, since efficient investment decisions among two or more alternative programs are made on the basis of marginal costs, the presence of joint costs presents no basic problems for cost-benefit analysis. Not only is joint cost allocation necessarily arbitrary in nature; it is not needed, given the emphasis on marginal costs. When joint costs occur and involve two or more programs or outputs, the total cost of the set of programs or outputs can be measured. Then, the combined total discounted benefits of the set of programs or outputs should equal or exceed their combined total discounted costs. But total average costs of each of the two programs simply cannot be measured in any non-arbitrary economic sense. This is no real loss, though, since to repeat, investment decisions between

[14] See Alain G. Enthoven, "Appendix: The Simple Mathematics of Maximization," in Charles J. Hitch and Roland N. McKean, The Economics of Defense in the Nuclear Age, (New York: Atheneum, 1965), pp. 380-385.

two or more competing programs are correctly made only on the basis of marginal and not average cost and benefit comparisons.

Within very broad limits joint inputs are similar to what is known in economic analysis as a public good. Just as the benefits from a public good such as national defense are pervasive and need not be rationed or allocated on an individual basis among consumers (since one person's consumption does not diminish the consumption of that same good by other consumers) so, too, a joint input need not be allocated among the outputs stemming from it because each output can use the joint input without limiting the use of the input by all other outputs. The only problem here is that, except for such services as national defense, it is very difficult to identify a pure public good.

The argument for proration has been advanced recently by R. L. Weil.[15] Given a joint input, X, such as the physical plant of a school district which, along with general educational outputs, produces the output of an in-school NYC project, the argument for proration goes as follows: Estimate the total demand and the marginal revenues for each of the outputs in question. The marginal revenues of each of the outputs in question are then used to allocate the joint costs. The sum of the marginal revenues for the outputs in question must equal the

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[15] See, R. L. Weil, Jr., "Allocating Joint Costs," American Economic Review, December, 1968, pp. 1342-1345. Also, Richard W. Judy, "Costs: Theoretical and Methodological Issues," Conference on Cost-Benefit Analysis of Manpower Policies, University of Wisconsin, Madison, Wisconsin, May, 1969, p. 18.

price of the joint input. Thus the cost of the joint input is allocated to each output according to its relative share of marginal revenue. The allocation of costs in this example will depend to a large extent on the conditions of demand for each of the outputs of the school district in question. Thus, for an identical production technique occurring in two markets with different demands for the outputs in question, different allocations of joint costs could occur.

The major problem with implementing this technique is that it is extremely difficult to estimate demand curves for goods and services and it is even more difficult to identify specific points on these curves. Thus, the operational practicality of the technique is questionable, given the current state of the art.

The controversy over allocating joint costs has not yet been resolved, but the authors of the present cost-effectiveness study tend to agree that joint costs should not be prorated, even though a pure joint input, like a pure public good, is difficult to find in actual practice. Thus, to the extent that the sponsor share is a joint input, then the marginal costs of the nationwide NYC program are overstated for the total cost functions.

Finally, to the extent that previously existing physical facilities are being used, these can be treated as "sunk" costs from society's standpoint. As such, their cost in use for the NYC program is zero if they have no alternative use. In short, in terms of clarity of the cost concept, the federal share is the less ambiguous of the two major cost components--federal and sponsor. And, the federal share

may be a closer representation of true social economic costs than the measure based on federal and sponsor share combined.

The NYC Wage as a Social Opportunity Cost. Total costs should be increased to the extent that the time of the NYC participant is undervalued by the NYC wage rate he receives. That is, if, on the average, a student could earn more at some job other than his NYC job, then the difference between the two earnings would need to be added to total social costs to get a true measure of total foregone opportunities. Likewise, if this person would earn less on a job other than the NYC job he has, the difference between the two is a transfer payment in favor of the NYC person and should be subtracted from the total social cost measure.

In this regard, transfer payments, which simply redistribute income among groups, are not considered social costs. It is in the nature of a transfer payment that what is given up by one individual or social group is, in turn, gained by a different individual or social group, so that, ignoring the problem of interpersonal comparisons of utility or the capacity to enjoy economic goods and services, there is no net loss of welfare within society as a whole.

The use of the total payment to the NYC participant as a cost probably overstates true social cost. If the NYC is designed to provide income to young persons who otherwise would be in the labor force--but who would remain totally or partially unemployed, then some of the payment to them is a transfer payment. Indeed, it could be assumed

that the NYC program is not fulfilling its function unless the typical NYC participant would have been earning less without an NYC job. This difference over and above what the NYC participant could have earned is not an opportunity cost to him. Thus, true social costs are likely overstated by use of the wage payment to the NYC participant.

On the other hand, the NYC participant is making some amount of contribution to social output since it is unlikely that his productivity is zero. Since he is contributing to social output, this benefit should be added to the other benefits of the NYC program, in order to balance the cost-benefit ledger.

In summary, the two issues which have been discussed imply that social costs in the study will be overstated while social monetary benefits will be understated. The overstatement in each case is not small.

The NYC Wage as a Private Opportunity Cost.[16] Problems similar to the above exist in treating the NYC wage payment as a private opportunity cost. First, economic theory would argue that the costs of participating in the NYC program are the costs of foregone leisure. The earnings of the NYC participant represent the cost to him of participating in the program. However, the wage payment, in turn, is a benefit and must also be added to the benefit side of the ledger. Thus, if the NYC participant incurred no other cost or benefit, his private cost-benefit ratio would be equal to one.

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[16] We are indebted to Thomas Ribich for clarification of the issues discussed in this and the previous section.

Another problem arises if the NYC program is providing earnings which the NYC participant otherwise would not have earned due to involuntary unemployment or the receipt of a lower wage rate in the market. In this case, if the NYC earnings are equal to or greater than the earnings one could receive in the market, then the foregone earnings resulting from participation in the NYC program are zero or negative. Negative foregone earnings are a benefit which must be added to the benefit side of the cost-benefit ledger.

Finally, there is the possibility that some of the NYC participants may earn less in the NYC program than they could have in the market. In such a case, private opportunity costs are understated. However, the overall presumption is that private costs are overstated or, what amounts to the same thing, private benefits are understated.

Costs by Type of Function. It was the original intent of this study to estimate the marginal costs not only of the sample of NYC projects, but also by program functions, such as counseling, within the NYC projects. However, this proved to be impossible to do. NYC project costs by program function were not uniformly reported for all the projects beginning in fiscal year 1966-67 and were not reported at all in fiscal year 1964-65 or fiscal year 1965-66. Federal costs are taken from Department of Labor, Neighborhood Youth Corps, Division of Program Review and Analysis, Ongoing and Terminated Projects--FY 66, For Week Ending Fiscal 1966, RPT 20073 and RPT 20119. Both total project cost and federal share are reported but only the federal share is audited. The Office of Financial Management Systems in the

Department of Labor, which audits the federal share, does not audit the sponsor share as it is not their fiduciary responsibility. The sponsor share, then, is recorded as it is reported from the sponsor on NYC-25, NYC Sponsor's Detailed Statement of Costs. This is the measure of sponsor share used in this study.

Finally, for fiscal year 1965-66 the data printouts report only the authorized obligations. We must, on the advice of officials in the Office of Financial Management Systems, assume that the monies reported here represent actual expenditures. It is felt that this assumption does not create any major error. Any error that does exist probably lies mainly with the sponsor share.

The next problem with costs is that federal costs are not reported separately by type of project component--in-school or summer. Almost all of the projects sampled in this study are complex ones and have some combination of an in-school, summer or out-of-school enrollment component.[17] These components represent joint outputs of the NYC program. It is not possible to estimate average in-school and summer NYC component costs in a non-arbitrary fashion. These average costs will be estimated in the following way: Total costs of the out-of-school component will be estimated by multiplying total out-of-school enrollment

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[17] Efforts to get cost estimates for separate out-of-school enrollments based on NYC-25 and BWP-25 forms located at the Regional Manpower Offices were not successful. In some cases, the cost data were already aggregated. In others, the data were already in archives and, given the time constraints on the revision of the study, inaccessible.

by the measure of marginal cost to the out-of-school participant. This product will be subtracted from the total cost of the combined in-school, summer and out-of-school NYC components. The remainder will then be the estimated total cost of the in-school and summer components. By dividing this sum by total in-school and summer enrollment, the estimated average cost of the in-school and summer components can be measured.

Marginal costs for each component can be separately estimated through regression analysis, but these marginal costs cannot be directly compared to the estimated average costs due to the arbitrary nature of this proration.

Next, while marginal costs are estimated separately for the three program components, for the cost-effectiveness analysis of the study, in-school and summer enrollments must be combined to estimate average and marginal costs because program benefits of the in-school and summer components cannot be separated. Many of the NYC participants sampled in the study took part in both an in-school and summer NYC program. Membership in two or more of these project components represents a joint input in producing NYC program benefits such as reduced dropout rates or increased employment after high school graduation.

Finally, while marginal costs to the out-of-school component will be estimated, these can be considered only as measures of marginal costs to out-of-school components which are present in or combined with in-school or summer NYC projects. They are not representative of a nation-wide measure of out-of-school NYC marginal costs.

One final type of cost component must be considered here--the federal cost involved in administering the in-school and summer components. It is argued here that these costs will be largely joint in nature and that they should not be allocated since they are part of the general cost of administering these and other manpower programs. To the extent that this is not the case, the marginal costs measures in this study will have a downward bias. It is not known how large this bias is.

E. Methodological and Data Problems: Benefits

Type of Benefits. As with costs, the benefits to the NYC program can be broken down into three major types:

1) Social benefits

2) Governmental benefits; and

3) Private benefits.

No measure or index of program performance will encompass the entire benefit due to the NYC program for any of the three categories above. The measures of benefits used in this study are all partial measures of benefits and, thus, ignore some aspects of program performance while they measure other aspects of program performance. Thus, the three types of benefit listed above can be further categorized into the following indexes of performance or output.

Economic measures of social benefit will be:

1) Number of months unemployed after leaving high school;

2) Number of months voluntarily out of the civilian labor force

after leaving high school;[18] and,

3) Total before tax earnings after leaving high school.

Non-economic measures of social benefit will be:

1) Increase in the probability of graduation from high school;

2) Increase in the number of years of high school attended;

3) Increase in the probability of college attendance after leaving high school; and,

4) Increase in the probability of attendance in post-secondary education other than college after leaving high school.

However, it is obvious that these non-economic benefits have economic implications as well, since higher levels of education lead to higher income. Therefore, one should beware of double-counting. The fact that an NYC participant may earn more or be unemployed less is partly a function of his increased education. Thus, both the increased education and the increased earnings cannot be simultaneously counted as a social benefit without adjustment for the influence of education on earnings.

Economic measures of governmental benefit encompass all three of the economic measures for social benefit. In addition, they can include

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[18] A measure of labor force participation is counted as a benefit since two issues are involved when one wishes to measure the effect of the NYC program on labor market behavior. First, does the NYC lead to higher labor force participation and, second, given the higher participation, does it lead to higher employment?

the increase in federal income and social security taxes after leaving high school.

Non-economic government benefits are the same as non-economic social benefits in this study.

Private economic benefits include the first two measures of social economic benefit outlined above, and, in addition, they include total after tax earnings after leaving high school. Private non-economic benefits are the same as the four non-economic measures of social benefit.

Problems in Benefit Measurement. The benefits to the NYC program are measured through two data gathering instruments--the field questionnaire and the school record data sheet. These are included in Appendix VI and VII.

Several conceptual issues arise with the use of these instruments. First, for measures of program output involving attitudes, deportment and scholastic performance, it was not possible to measure these variables both before and after enrollment in the NYC program. Measures of change over time are needed, and yet only point-of-time estimates were available, given that this is an ex post analysis constrained by time and fixed resources. Thus, unless one assumes that the control and experimental groups measured the same on all these indexes before the NYC program was in operation, then any differences found in the follow-up study are imperfect measures of benefit.

Psychological attitudes are measured at the time of the field interview. Dates are not available on the limited amount of information

on deportment present in the available school records. Before-after data on scholastic performance were not available. In fact, information on scholastic performance reported by the school record data sheet is of generally low quality and is largely unusable. The problem is similar to the one for study [9] mentioned on pages 9 and 10.

Measures of IQ are available for about one half of the study group, and only 18 of these have five or more observations. While these different tests can be standardized, their incompleteness across the sample precludes the use of IQ as an independent variable for the total study sample. Analysis of the effect of IQ for a limited subsample of the study is provided in Appendix Table 5-V.

The probability of high school graduation, a major index of NYC program performance, is a reliable measure of benefit since we have a complete high school attendance history of the respondents based on the field questionnaire. Therefore, in our measures of net program effect it is possible to determine the number of times a student has dropped out of high school as wellas the length of time he has been a dropout.

The index of program performance based on post-NYC labor market experience is quite sound since we have a complete labor market history from the beginning of high school up to the time of interview, including both the NYC work and any other employment a student had while attending high school. Thus, in effect, there is the equivalent of a before-after measure of school attendance and labor market performance. Students do not generally enter the labor market until they are of high school age.

Since the main thrust of the NYC program is to further high school graduation and post-graduation employment and earnings, the major measures of program benefits are basically reliable.

Governmental and Social Benefits. The way one measures costs and benefits depends in part upon the purpose at hand. For programs financed by the public sector it is common to attempt to measure "government costs and benefits." This approach will be used along with others in this study. One way of measuring government costs and benefits is to compare the governmental cost outlay with the taxes which are subsequently paid on the increased value added to the social product by the persons who received the program treatment. This type of comparison will indicate what happens to the government budget and may be of interest if one is primarily concerned with the balance of governmental expenditures and revenue. However, this is a relatively restrictive approach to measuring costs and benefits and does not commend itself if the NYC program is valued by its contribution to the general level of social well-being. An alternative approach, no less correct or incorrect, would be to compare the governmental costs with the total increase in value added, not just with the taxes to be received from this increase in value added. The least ambiguous measure is to estimate total social costs and compare these with the total value added to the social product.

If a social investment program such as the NYC pays off so that the discounted increase in value added covers all social costs, then

it is possible to achieve a favorable balance for a governmental unit such as the federal government. If the current tax rate is not high enough to cover the government outlay, the lawmakers concerned with deficit can raise the tax rate since the value added by the program has increased the national income whereby a commensurate increase in tax revenue can be justified. Of course, the gainers--the NYC participants--may not pay all of this tax increase, but they do not necessarily gain all of the benefits of the program, either. The problem of identifying the specific gainers and losers as well as the exact amounts they gain and lose is so complex as to be impractical of solution at this stage of the art. Therefore, the most straightforward evaluation of this social investment is to analyze the effects on social costs and benefits.

F. Method of Data Analysis

Since the design of this study is not an experimental one, it is necessary to rely on an ex post analysis of differences in performance between students who were exposed and those who were not exposed to the "treatment" of participation in the NYC. Socio-demographic characteristics of the students and their environments are also included in the analysis of the two groups. Many of these socio-demographic and environmental variables have significant impacts upon the differences in high school and post-high school experience. Therefore, cross-tabulations and especially multiple regression analysis are used to help control for the effects of these variables. Finally, as indicated above, a

discriminant function is estimated and employed as an additional aid. Based on the independent variables used in its estimation, the discriminant function yields an estimated value of the probability of each sample unit in the study being a member of the NYC. The estimated value of this discriminant function is used as an independent variable in the regression models used to estimate net NYC program benefits.

G. Summary

This is a nationwide study of the in-school and summer Neighborhood Youth Corps. It is based on a stratified random sample of the NYC programs in operation in fiscal years 1965-1966 and 1966-1967, inclusive.

The major methodological issues confronting the study are problems of the control group, the measures of cost and the measures of benefit. The control group is not ideal, but the best available under the circumstances. Sufficient socio-demographic and personality variables, in quality and quantity, exist to help compensate for the fact that the control and experimental groups do not come from exactly the same population.

A discriminant function will be estimated and employed along with multi-variate regression analysis to aid in estimating net program benefits.

The best measures of social cost in this study are the federal program costs. The best measures of individual costs are the wages earned while in the NYC, for these are a measure of foregone leisure and study time.

The measures of benefit vary as to their soundness, but the basic indexes of program performance, school attendance and post-high school labor force experience, approximate the attributes of a before-after measurement necessary in an evaluation of this type.

CHAPTER III

CHARACTERISTICS, EXPERIENCE AND COMPARISONS OF THE NYC AND THE CONTROL SAMPLES

A. Introduction

This chapter describes and analyzes the characteristics, experience and attitudes of the NYC sample in comparison with the control sample. The first section presents a statistical test of the hypothesis that the NYC and control samples are taken from the same population. The following sections describe the personal, educational, labor market, and attitudinal characteristics of the NYC and control samples.

B. Test of the Two Samples

Even though the NYC and the control samples may appear to be similar on the basis of a number of important independent variables when compared individually as shown in section C, these individual comparisons, say of sex or age, fail to account for interactions of these variables among other variables. These interactions can change the net impact of a given variable on any index of program performance when the independent variables are considered with others in a regression model or a cross-classification. Thus, the comparison of the two samples on the basis of critical objective characteristics is an important but not a completely satisfactory test to determine the comparability of the two samples. Since statements of cause and effect between the NYC program and the various indexes of program performance are based on the premise that the two samples come from the same population, it is important to establish whether this premise is

correct. There is a standard procedure which will test this hypothesis.[1] The data for the test are displayed in Table 7. These data are generated in the following fashion: Regression models, used to measure seven indexes of program performance, are estimated for the total sample and for the NYC and control samples taken separately. For the dependent variables shown in Table 7, the models are the same as those displayed in Chapters V and VI except that the policy variables of NYC status is omitted as an independent variable. Thus, the test is an estimate of whether the two samples are from the same population with respect to the particular dependent variables of program performance and regression models in question, exclusive of the condition that some sample respondents were in the NYC and some were not.

The seven tests of the respective models indicate that it cannot be said that the NYC sample and the control sample come from the same population. The F-ratio for Total Post-High School Before-Tax Earnings is 3.07 while the critical value for 17 and 642 degrees of freedom is approximately 1.45. In order to not reject the hypothesis that the two samples are from the same population, the estimated F-ratio should be less than the critical value.

The implication of this test is that the control group is not perfect; that is, it is not identical with the NYC sample except for the NYC experience. It should be kept in mind, however, that this rigorous test has seldom been met in evaluative research. Even though the NYC age and

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[1] See J. Johnston, Econometric Methods, (New York: McGraw-Hill, 1960), pp. 136-138.

TABLE 7

STATISTICAL ANALYSIS TO TEST IF THE NYC AND CONTROL SAMPLES ARE FROM THE SAME POPULATION

Dependent Variable	Total Sample			NYC Sample		
	Residual Sum of Squares Q_1	Sample Size $m+n$	Number of Regressors k	Residual Sum of Squares Q_{2_1}	Sample Size m	Number of Regressors k
Total Post-High School Before Tax Earnings	79,858,000	676	17	41,537,000	388	17
Total Months Unemployed	24,626	676	17	15,573	388	17
Total Months Voluntarily Out-of-the Labor Force	64,157	676	17	32,206	388	17
Probability of Graduation	20.38	780	12	11.59	442	12
Total Years of High School Completed	21,537	780	12	10,647	442	12
Probability of College Attendance	97.73	659	12	60.16	381	12
Probability of Post-High School Education	68.36	659	12	41.69	381	12

TABLE 7 -- Continued

Dependent Variable	Control Sample: Residual Sum of Squares Q_{2_2}	Control Sample: Sample Size n	Control Sample: Number of Regressors k	F-Ratio
Total Post-High School Before Tax Earnings	32,323,000	288	17	3.07
Total Months Unemployed	5,290	288	17	6.88
Total Months Voluntarily Out-of-the Labor Force	28,038	288	17	2.45
Probability of Graduation	7.63	338	12	4.20
Total Years of High School Completed	9,121	338	12	5.64
Probability of College Attendance	31.84	278	12	3.27
Probability of Post-High School Education	23.68	278	12	2.44

TABLE 7 -- Continued

Notes: (a) This statistical test is called a "test of equality between coefficients in two relations." In effect, it tests whether it can be said that the NYC and the control groups come from the same population with respect to each of the dependent variables above, given a specified regression model. The source of the test is J. Johnston, Econometric Methods, (New York: McGraw-Hill, 1960), pp. 136-138. The formula for computing the F-ratio of the test is as follows:

where

$$F = \frac{Q_3/k}{Q_2/(m + n - 2k)}$$

F = F-Ratio

$Q_1 = Q_2 + Q_3$ = Residual Sum of Squares of Total Sample (combined NYC and Control Samples).

Q_2 = Residual Sum of Squares of NYC sample plus Residual Sum of Squares of Control sample $(Q_{2_1} + Q_{2_2})$.

$Q_3 = Q_1 - Q_2$

k = number of regressors in the regression model.

m = number of observations in the NYC sample.

n = number of observations in the control sample.

The 17 regressors in the three labor market models are: the weight factor; age at time of interview, in years; year and quarter when respondent ultimately left high school; employment experience in high school (other than NYC experience) or during an interim dropout period, in months; single marital status; widowed, separated or divorced marital status; father's education in years of school completed; metropolitan economic area - population of central city is at least 50,000 but less than 500,000; rural functional economic area - independent regional areas of less than 50,000 population; rural population density of less than two persons per square mile; sex; Negro ethnic origin; American Indian ethnic origin; Mexican American ethnic origin; Puerto Rican ethnic origin; and, the discriminant function.

The 12 regressors in the four education benefit models are: the weight factor; age at time of interview in years; income per capita per family during school attendance; farm-non-farm residence during school; number of times respondent dropped out of high school prior to ultimately leaving high school; father's education in years of school completed; sex;

TABLE 7 -- Continued

Notes -- Continued

Negro ethnic origin; American Indian ethnic origin; Mexican American ethnic origin; Puerto Rican ethnic origin; and, the discriminant function.

(b) The computed ratio is greater than the critical value for each of the seven models. Thus it cannot be said that the two samples come from the same population with respect to the seven dependent variables, taken respectively.

family income guides were followed in the selection of the control sample, other factors have intruded on the sample selection process such as non-response bias and residual psychological and personal factors not accounted for in the discriminant function, which result in the two samples being dissimilar. This lack of perfect correspondence does not destroy the the findings and conclusions of the study, but it does qualify them by reducing the strength of the assertion that the measured benefits are due to a strict cause-effect relationship between participation in the NYC and performance on the selected indexes of program performance. Nor does the test imply anything other than that the two samples are different. Comparisons between the two samples of the mean values of the independent variables in the models will indicate the general extent and direction of the differences between the samples.

In conclusion, we have, strictly speaking, a comparison group and not a control group in the sense that this would be understood in a methodology employing an experimental model of random assignments of a given population to respective experimental and control groups as was done in the Robin study of the NYC in Cincinnati.

C. Characteristics and Comparisons of the Two Samples

Even though the NYC and control samples cannot be said to have come from the identical population, as indicated in the rigorous test presented above, the two samples are similar in a number of important personal characteristics. As is seen in Table 8, the average age in both groups is approximately 20 years; and in both cases approximately 44 percent is male. Even the per capita family income in the two groups is very similar; and

TABLE 8

CHARACTERISTICS OF NYC AND CONTROL SAMPLES,
UNWEIGHTED, HIGH SCHOOL SAMPLE,
GRADUATES AND DROP OUTS

Variable	NYC n=436	Control n=344	Total n=780
Probability of Graduation	86.47%	82.30%	84.62%
Total School Grades Completed	11.8 (6.0)	11.7 (6.9)	11.7 (6.4)
Age in Years	19.94 (0.978)	19.99 (1.23)	19.96 (1.09)
Income Per Capita Per Family	6.59 (3.55)	6.61 (2.49)	6.60 (3.12)
Farm Residence	6.65%	9.59%	7.95%
Father's Education	8.63 (3.44)	9.01 (5.06)	8.80 (4.24)
Number of Times Respondent Dropped Out of High School	0.165 (0.372)	0.212 (0.409)	0.186 (0.389)
Sex			
Male	43.35%	44.77%	43.97%
Female	56.65%	55.23%	56.03%
Ethnic Origin			
White	56.42%	59.01%	57.56%
Negro	24.77%	25.87%	25.26%
American Indian	8.03%	4.94%	6.67%
Mexican American	9.40%	9.59%	9.49%
Puerto Rican	0.688%	0.0	0.385%

the average of the father's education in the two samples is also relatively close, 8.6 years for the NYC and 9.0 years for the control sample.

There are slightly greater differences between the two samples with regard to residence and ethnic origin. Whereas 6.65 percent of the NYC sample resided on a farm, almost ten percent of the control sample were farm residents. Approximately 25 percent of both samples were Negro; however, a greater proportion of the control sample were white, 59 percent versus 56.4 percent for the NYC, with a correspondingly larger percentage of the NYC sample being American Indian. In both samples almost ten percent were Mexican American. The data presented in Table 8 indicate that the NYC experience had a beneficial effect on school retention, one of the principal purposes of the program. Although there was little difference in the average number of years of schooling completed by the two groups, 11.8 years, the probability of graduation from high school for the NYC sample was 86.47 percent, as compared with 82.30 percent for the control group.

If we look only at those who graduated from high school, described in Table 9, we note that the NYC sample had a probability of college attendance of 40.16 percent as compared with only 33.22 percent for the control group. In similar vein, the NYC group had a somewhat higher probability of enrollment in post-high school training other than college, 21.8 percent versus 19 percent.

Although there are minor differences in personal characteristics for both samples of high school graduates as compared with the larger sample described in Table 8, these differences are minor and the mag-

TABLE 9

CHARACTERISTICS OF NYC AND CONTROL SAMPLES,
UNWEIGHTED, HIGH SCHOOL GRADUATE SAMPLE

Variable	NYC n=376	Control n=283	Total n=659
Probability of College Attendance	40.16%	33.22%	37.18%
Probability of Post-High School Training Other Than College	21.81%	19.08%	20.64%
Age in Years	19.98 (0.982)	20.04 (1.211)	20.00 (1.08)
Income Per Capita Per Family	6.47 (3.43)	6.78 (2.56)	6.60 (3.09)
Farm Residence	6.65%	8.83%	7.59%
Father's Education	8.75 (3.38)	9.27 (5.27)	8.97 (4.30)
Number of Times Respondent Dropped Out of High School	0.035 (0.18)	0.046 (0.21)	0.039 (0.19)
Sex			
Male	43.08%	46.64%	44.61%
Female	56.92%	53.36%	55.39%
Ethnic Origin			
White	55.85%	60.42%	57.81%
Negro	26.86%	25.80%	26.40%
American Indian	7.45%	3.53%	5.77%
Mexican American	8.51%	9.54%	8.95%
Puerto Rican	0.532%	0.0	0.303%

nitudes of the comparative differences between the two samples described above are similar.

As reflected in the data on school completion, the control samples had a somewhat higher rate of dropout than the NYC sample. A description of the dropout experience of the two groups including employment and wage rates during periods of dropout, cross-classified by sex and region, is presented in Appendix Table 23-V.

Labor Market Experience. The unweighted data shown in Table 10 on labor market experience after leaving high school indicate that for the sample as a whole, the NYC group experienced slightly more months of unemployment and somewhat lower before-tax earnings than the control group. The NYC group was out of the labor force a somewhat shorter time in the post-high school period, however. The total before-tax earnings of the NYC group in the post-high school period were $4,159, as compared with $4,247 for the control group. It is interesting to note that the control group averaged 6.24 hours of work per week in high school even though they were not enrolled in the NYC program. Thus, it would be an error to conclude that any benefits that might be derived from employment of students while in high school can be attributed wholly to the NYC experience, without controlling for work experience other than NYC experience while in high school.

There are no important differences in personal characteristics of the samples used for labor market analysis as compared with the somewhat larger samples analyzed in Tables 8 and 9 above. It is noted in Table 10 (the labor market analysis sample) that 35.3 percent of the

TABLE 10

CHARACTERISTICS OF NYC AND CONTROL SAMPLES,
UNWEIGHTED, LABOR MARKET SAMPLE

Variable	NYC n=388	Control n=288	Total n=676
Total Post-High School Before Tax Earnings	$4,159 ($4,684)	$4,247 ($4,271)	$4,196 ($4,510)
Total Months Unemployed	1.73 (5.26)	1.52 (4.57)	1.64 (4.98)
Total Months Voluntarily Out-of-the Labor Force	9.02 (10.57)	9.93 (13.24)	9.41 (11.78)
Age in Years	19.95 (10.13)	19.98 (13.59)	19.96 (11.24)
Total Hours Worked/Week in High School	2.91 (6.57)	6.24 (10.29)	4.33 (8.51)
Married	35.3%	29.9%	33.0%
Single	62.9%	67.7%	64.9%
Widowed, Separated, Divorced	1.8%	2.4%	2.1%
Father's Education	8.6 (3.4)	9.1 (5.3)	8.8 (4.3)
Sex			
Male	45.4%	46.9%	46.0%
Female	54.6%	53.1%	54.0%
Ethnic Origin[a]			
White	57.0%	61.4%	58.9%
Negro	24.7%	24.3%	24.6%
American Indian	7.0%	4.2%	5.8%
Mexican American	9.8%	9.3%	9.6%
Puerto Rican	.8%	0.0	.4%
Discriminant Function	.6893 (.0932)	.4112 (.3183)	.5708 (.2588)

TABLE 10 -- Continued

Variable	NYC n=388	Control n=288	Total n=676
Labor Market Area (Functional Economic Area:)			
Central City 500,000 or more	27.6%	31.3%	29.2%
Central City less than 500,000 More than 50,000	52.6%	46.5%	50.0%
Rural Functional Economic Area	14.9%	17.0%	15.8%
Rural - Less than 2 persons/ square mile	4.9%	5.2%	5.0%

Notes: (a) Totals may not add to 100.00% due to rounding error.

control group were married in comparison with 29.9 percent of the control group. Whereas a larger proportion of the control group were in labor market areas in central cities of 500,000 or more (31.3 percent versus 27.6 percent for NYC), a larger proportion of the control group was also found in rural labor markets in their post-high school period.

These unweighted labor market comparisons for the NYC and control samples are supplemented by weighted comparisons of labor market experience for the two groups, classified by sex and race in Appendix Tables 24-V, 25-V, and 26-V. These comparisons indicate that the male members of the NYC group had less favorable earnings and wages than their counterparts in the control group; but female NYC participants experienced greater earnings and wages than females in the control group. NYC males, undifferentiated by ethnic origin, had an average of $3,115 in total post-high school before-tax earnings as compared with $3,696 for males in the control group. However, females in the NYC earned $2,694 as compared with $2,563 for their counterparts in the control group. After tax earnings were also lower for NYC males and higher for NYC females as compared with the control group; and there were similar differences in wage rates and federal income and social security tax payments (Appendix Table 24-V).

On the other hand, NYC males had a somewhat better record of employment and labor force participation than males in the control group; and NYC females had experienced somewhat greater unemployment than those in the control group.

As is seen in the weighted data presented in Appendix Table 25-V, Negroes in the control group had higher post-high school earnings and

hourly wage rates than Negroes in the NYC program in spite of a somewhat greater period of unemployment and non-labor force status. However, they also had a somewhat longer period of potential labor force participation after leaving high school. White students in the control group also had post-high school advantages in earnings and wage rates as compared with whites in the NYC group. Here, too, those in the control group experienced slightly greater periods of unemployment and non-labor force status.

When the NYC and control groups are classified by both sex and ethnic origin, the advantage of the control group in labor market wages and earnings is still apparent for males, whether Negro or white (Appendix Table 26-V). White females in the NYC sample experienced higher earnings and wage rates than their counterparts in the control group; but Negro females in the NYC group did not. Among Negro females, the control group experienced higher earnings in the post-high school period before taxes as well as after taxes, and their hourly wage rate was also higher than that of their counterparts in the NYC sample.

Attitudes and Values of NYC and Control Groups. In addition to differences in educational attainment and labor market experience, there may be interesting differences between the NYC and control samples in attitudes and values. Since there was no survey of attitudes prior to the NYC enrollment, it is not possible to determine the effect of the NYC program in changing attitudes. Although NYC enrollment may have contributed to the attitudinal responses discussed in this section, neither the existence nor the magnitude of such a relationship can be established.

Educational Values. As is indicated in Table 11, greater stress is generally placed on the necessity of a college education by females than males, and by respondents in the west as compared with the north or south. These regional and sex differences appear to be more consistent than differences between the NYC and control groups on this question. All respondents value a college education more for purposes of employment than for status; but the NYC respondents tend to value the status aspects of a college education more than the controls. The NYC group places greater stress than the control group on the need of a college education to get a good job in the north and south for females and in the west for males.

Negroes place much more importance than whites on the necessity of a college education for both status and employment. This is true in all regions. However, there are no consistent differences between NYC and control samples within ethnic groups. (Appendix Tables 27-V, 28-V, and 29-V).

Work Values. There were no consistent differences between the NYC and control groups when respondents were asked a number of questions to indicate the value they placed on work. Majorities in both groups appeared to be imbued with the "Protestant Ethic", agreeing that work is "the only way to survive" and placing emphasis on the quality and interest of work as well as stressing hard work as a means of advancement, as shown in Table 11.

There were some notable exceptions in specific sex-regional categories, however. Only 11.4 percent of the female NYC sample in the south "strongly agreed" that "work is the only way to survive", in contrast with much larger percentages who gave this response in other sex-NYC-regional categories, e. g., 41.9 percent for NYC females in the north.

TABLE 11

ATTITUDES AND VALUES OF THE NEIGHBORHOOD YOUTH CORPS AND CONTROL SAMPLES, BY SEX AND REGION
(PERCENTAGES IN PARENTHESES)[b]

	WEST				NORTH				SOUTH			
	NYC		Control		NYC		Control		NYC		Control	
	female[a]	male	female	male	female	male	female	male	female	male	female	male
A. EDUCATIONAL VALUES												
How important is it to have a college education in order to be looked up to by most people around here?												
Absolutely Necessary	25 (51.0)	65 (49.2)	10 (41.7)	42 (39.6)	12 (28.6)	21 (20.2)	15 (29.4)	31 (34.8)	24 (30.4)	36 (28.1)	18 (26.4)	27 (26.2)
It helps but it isn't necessary	17 (34.7)	54 (40.9)	13 (54.2)	48 (45.3)	26 (61.9)	62 (59.6)	29 (56.9)	46 (51.7)	47 (59.5)	82 (64.1)	37 (54.4)	69 (67.0)
Doesn't matter one way or another	7 (14.3)	12 (9.1)	1 (4.2)	15 (14.2)	4 (9.5)	19 (18.3)	7 (13.7)	11 (12.4)	8 (10.1)	9 (7.0)	13 (19.1)	4 (3.9)
You're better off without it	0 (.0)	1 (.8)	0 (.0)	1 (.9)	0 (.0)	2 (1.9)	0 (.0)	1 (1.1)	0 (.0)	1 (.8)	0 (.0)	3 (2.9)
How important is it have a college education in order to get a good paying job around here?												
Absolutely Necessary	30 (58.8)	81 (61.8)	19 (79.2)	59 (55.7)	23 (56.1)	26 (25.0)	23 (45.1)	39 (43.8)	32 (40.5)	51 (40.2)	26 (38.2)	47 (45.6)

TABLE 11 -- Continued

	WEST				NORTH				SOUTH			
	NYC		Control		NYC		Control		NYC		Control	
	female	male	female	male	female	male	female	male	female	male	female	male
It helps but it isn't necessary	17 (33.3)	43 (32.8)	5 (20.8)	39 (36.8)	14 (34.2)	65 (62.5)	28 (54.9)	43 (48.3)	37 (46.8)	70 (55.1)	35 (51.5)	51 (49.6)
Doesn't matter one way or another	4 (7.8)	7 (5.3)	0 (.0)	8 (7.6)	4 (9.8)	12 (11.5)	0 (0)	7 (7.9)	9 (11.4)	6 (4.7)	7 (10.3)	5 (4.9)
You're better off without it	0 (.0)	0 (.0)	0 (.0)	0 (.0)	0 (.0)	1 (1.0)	0 (.0)	0 (.0)	1 (1.3)	0 (.0)	0 (.0)	0 (.0)
B. WORK VALUES												
Work is the only way to survive												
Strongly Agree	15 (28.9)	49 (37.1)	7 (29.2)	28 (26.4)	18 (41.9)	33 (31.7)	17 (33.3)	16 (18.0)	9 (11.4)	41 (32.0)	14 (20.6)	36 (35.0)
Agree	25 (48.1)	56 (42.4)	11 (45.8)	53 (50.0)	16 (37.2)	43 (41.4)	24 (47.1)	51 (57.3)	42 (53.2)	64 (50.0)	37 (54.4)	43 (41.8)
Not Sure	7 (13.5)	12 (9.1)	3 (12.5)	9 (8.5)	5 (11.6)	8 (7.7)	1 (2.0)	6 (6.7)	17 (21.5)	4 (3.1)	9 (13.2)	10 (9.7)
Disagree	4 (7.7)	13 (9.9)	3 (12.5)	15 (14.2)	4 (9.3)	18 (17.3)	8 (15.7)	14 (15.7)	10 (12.7)	11 (8.6)	7 (10.3)	13 (12.6)
Strongly Disagree	1 (2.0)	2 (1.5)	0 (.0)	1 (.9)	0 (.0)	2 (1.9)	1 (2.0)	2 (2.3)	1 (1.3)	8 (6.3)	1 (1.5)	1 (1.0)

TABLE 11 -- Continued

	WEST				NORTH				SOUTH			
	NYC		Control		NYC		Control		NYC		Control	
	female	male	female	male	female	male	female	male	female	male	female	male
So long as I earn enough to live decently, I don't care too much what kind of work I do.												
Strongly Agree	1 (1.9)	11 (8.3)	0 (.0)	4 (3.8)	2 (4.7)	7 (7.7)	0 (.0)	1 (1.1)	4 (5.1)	6 (4.7)	0 (.0)	2 (1.9)
Agree	6 (11.5)	11 (8.3)	4 (16.7)	14 (13.2)	6 (14.0)	12 (11.5)	3 (5.9)	11 (12.4)	12 (15.2)	17 (13.3)	16 (23.5)	17 (16.5)
Not Sure	5 (9.6)	10 (7.6)	4 (16.7)	11 (10.4)	4 (9.3)	6 (5.8)	0 (.0)	3 (3.4)	13 (16.7)	7 (5.8)	2 (2.9)	3 (2.9)
Disagree	25 (48.1)	67 (50.8)	13 (54.2)	51 (48.1)	19 (44.2)	59 (56.7)	24 (47.1)	53 (59.6)	34 (43.0)	49 (38.3)	36 (52.9)	48 (46.6)
Strongly Disagree	15 (28.9)	33 (25.0)	3 (12.5)	26 (24.5)	12 (27.9)	20 (19.2)	24 (47.1)	21 (23.6)	16 (20.3)	49 (38.3)	14 (20.6)	33 (32.0)
Work is so interesting that people do it even if they don't need the money												
Strongly Agree	3 (5.8)	11 (8.3)	0 (.0)	7 (6.6)	6 (14.0)	7 (6.7)	0 (.0)	6 (6.7)	2 (2.5)	11 (8.6)	3 (4.4)	8 (7.8)
Agree	19 (36.5)	33 (25.0)	10 (41.7)	36 (34.0)	5 (11.6)	29 (27.9)	13 (25.5)	33 (37.1)	27 (34.2)	30 (23.4)	17 (25.0)	36 (35.0)
Not Sure	10 (19.2)	31 (23.5)	8 (33.3)	8 (7.6)	11 (25.6)	12 (11.5)	2 (3.9)	8 (9.0)	19 (24.1)	21 (16.9)	12 (17.7)	6 (5.8)
Disagree	18 (34.6)	41 (31.1)	6 (25.0)	42 (39.6)	13 (30.2)	48 (46.2)	23 (45.1)	34 (38.2)	20 (25.3)	53 (41.4)	26 (38.2)	43 (41.8)

TABLE 11 -- Continued

	WEST				NORTH				SOUTH			
	NYC		Control		NYC		Control		NYC		Control	
	female	male	female	male	female	male	female	male	female	male	female	male
Strongly Disagree	2 (3.9)	16 (12.1)	0 (.0)	13 (12.3)	8 (18.6)	8 (7.7)	13 (25.7)	8 (9.0)	11 (13.9)	13 (10.2)	10 (14.7)	10 (9.7)
On most jobs you don't get ahead by working hard; you get ahead by knowing the right people.												
Strongly Agree	1 (1.9)	13 (9.9)	1 (4.2)	5 (4.7)	3 (7.0)	6 (5.8)	6 (11.8)	3 (3.4)	3 (3.8)	8 (6.3)	3 (4.4)	4 (3.9)
Agree	11 (21.2)	24 (18.2)	4 (16.7)	25 (23.6)	4 (9.3)	18 (17.3)	5 (9.8)	19 (21.4)	13 (16.5)	28 (22.1)	21 (30.9)	18 (17.8)
Not Sure	5 (9.6)	30 (22.7)	2 (8.3)	19 (17.9)	12 (27.9)	11 (10.6)	2 (3.9)	12 (13.5)	20 (25.3)	17 (13.4)	11 (16.2)	13 (12.6)
Disagree	31 (59.6)	51 (38.6)	15 (62.5)	49 (46.2)	19 (44.2)	56 (53.9)	31 (60.8)	43 (48.3)	34 (43.0)	57 (44.9)	29 (42.7)	53 (51.8)
Strongly Disagree	4 (7.7)	14 (10.6)	2 (8.3)	8 (7.6)	5 (11.6)	13 (12.5)	7 (13.7)	12 (13.5)	9 (11.4)	17 (13.4)	4 (5.9)	15 (14.6)
C. SELF-ESTEEM												
On the whole, I am satisfied with myself												
Strongly Agree	6 (11.5)	25 (18.9)	1 (4.2)	10 (9.4)	10 (23.3)	18 (17.3)	9 (17.7)	10 (11.2)	12 (15.2)	27 (21.1)	9 (13.2)	19 (18.5)

TABLE 11 -- Continued

	WEST				NORTH				SOUTH			
	NYC		Control		NYC		Control		NYC		Control	
	female	male	female	male	female	male	female	male	female	male	female	male
Agree	24 (46.2)	10 (53.0)	13 (54.2)	60 (56.6)	19 (44.2)	54 (56.9)	28 (54.9)	56 (62.9)	41 (51.9)	56 (43.8)	43 (63.2)	53 (51.5)
Not Sure	9 (17.3)	14 (10.6)	6 (25.0)	15 (14.2)	1 (2.3)	13 (12.5)	2 (3.9)	3 (3.4)	17 (21.5)	13 (10.2)	10 (14.7)	8 (7.8)
Disagree	13 (25.0)	23 (17.4)	3 (12.5)	19 (17.9)	12 (27.9)	18 (17.3)	10 (19.6)	18 (20.2)	9 (11.4)	27 (21.1)	5 (7.4)	22 (21.4)
Strongly Disagree	0 (.0)	0 (.0)	1 (4.2)	2 (1.9)	1 (2.3)	1 (1.0)	2 (3.9)	2 (2.3)	0 (.0)	5 (3.9)	1 (1.5)	1 (1.0)
I feel that I do not have much to be proud of.												
Strongly Agree	0 (.0)	3 (2.3)	0 (.0)	1 (.9)	2 (4.6)	4 (3.9)	3 (5.9)	9 (10.1)	0 (.0)	1 (.8)	2 (2.9)	1 (1.0)
Agree	6 (11.5)	15 (11.4)	2 (8.3)	12 (11.3)	1 (2.3)	4 (3.9)	8 (15.7)	7 &.9)	2 (2.5)	10 (7.8)	4 (5.9)	9 (8.7)
Not Sure	6 (11.5)	11 (8.3)	4 (16.7)	13 (12.3)	5 (11.6)	9 (8.7)	1 (2.0)	2 (2.3)	6 (7.6)	8 (6.3)	8 (11.8)	6 (5.8)
Disagree	30 (57.7)	61 (46.2)	15 (62.5)	52 (49.1)	19 (44.2)	60 (57.7)	20 (39.2)	50 (56.2)	50 (63.3)	71 (55.5)	38 (55.9)	58 (56.3)
Strongly Disagree	10 (19.2)	42 (31.8)	3 (12.5)	28 (26.4)	16 (37.2)	27 (26.0)	19 (37.3)	21 (23.6)	21 (26.6)	38 (29.7)	16 (23.5)	29 (28.7)

TABLE 11 -- Continued

	WEST				NORTH				SOUTH			
	NYC		Control		NYC		Control		NYC		Control	
	female	male	female	male	female	male	female	male	female	male	female	male
I am able to do things as well as most other people.												
Strongly Agree	7 (13.5)	39 (29.6)	5 (20.8)	21 (19.8)	14 (32.6)	27 (26.0)	8 (15.7)	16 (18.0)	14 (17.7)	25 (19.5)	9 (13.2)	26 (25.2)
Agree	38 (73.1)	15 (56.8)	17 (70.8)	69 (65.1)	25 (58.1)	61 (58.7)	39 (76.5)	62 (69.7)	49 (62.10)	88 (68.8)	46 (67.7)	68 (66.0)
Not Sure	6 (11.5)	9 (6.8)	1 (4.2)	10 (9.4)	2 (4.7)	4 (3.9)	3 (5.9)	1 (1.1)	8 (10.1)	4 (3.1)	11 (16.2)	5 (4.9)
Disagree	1 (1.9)	9 (6.8)	1 (4.1)	6 (5.7)	2 (4.7)	12 (11.5)	1 (2.0)	10 (11.2)	8 (10.1)	10 (7.8)	2 (2.9)	4 (3.9)
Strongly Disagree	0 (.0)	0 (.0)	0 (.0)	0 (.0)	0 (.0)	0 (.0)	0 (.0)	0 (.0)	0 (.0)	1 (.8)	0 (.0)	0 (.0)
I feel that I am person of worth, at least on an equal plane with others.												
Strongly Agree	8 (15.4)	48 (36.4)	4 (16.7)	27 (25.5)	14 (32.6)	32 (30.8)	10 (19.6)	26 (29.2)	15 (19.0)	40 (31.3)	18 (26.5)	19 (18.5)
Agree	42 (80.8)	75 (56.8)	18 (75.0)	68 (64.2)	25 (58.1)	69 (66.4)	41 (80.4)	58 (65.2)	54 (68.4)	82 (64.1)	40 (58.8)	81 (78.6)
Not Sure	2 (3.9)	7 (5.3)	1 (4.2)	10 (9.4)	2 (4.7)	1 (1.0)	0 (.0)	1 (1.1)	5 (6.3)	3 (2.3)	9 (13.2)	2 (1.9)

TABLE 11 -- Continued

	WEST				NORTH				SOUTH			
	NYC		Control		NYC		Control		NYC		Control	
	female	male	female	male	female	male	female	male	female	male	female	male
Disagree	0 (.0)	1 (.8)	1 (4.2)	1 (.9)	1 (2.3)	2 (1.9)	0 (.0)	4 (4.5)	5 (6.3)	2 (1.6)	1 (1.5)	0 (.0)
Strongly Disagree	0 (.0)	1 (.8)	0 (.0)	0 (.0)	1 (2.3)	0 (.0)	0 (.0)	0 (.0)	0 (.0)	1 (.8)	0 (.0)	1 (1.0)
At times I think I am no good at all.												
Strongly Agree	0 (.0)	5 (3.8)	1 (4.2)	2 (1.9)	1 (2.3)	6 (5.8)	3 (5.9)	4 (4.5)	5 (6.3)	4 (3.1)	1 (1.5)	2 (1.9)
Agree	13 (25.0)	35 (26.5)	8 (33.3)	2 (20.8)	9 (20.9)	29 (27.9)	11 (26.6)	39 (43.8)	12 (15.2)	41 (32.0)	19 (27.9)	40 (38.8)
Not Sure	7 (13.7)	14 (10.6)	3 (12.5)	14 (13.2)	4 (9.3)	6 (5.8)	0 (.0)	5 (5.6)	8 (10.1)	13 (10.2)	1 (1.5)	7 (6.8)
Disagree	24 (46.2)	55 (41.7)	11 (45.8)	58 (54.7)	17 (39.5)	46 (44.2)	17 (33.3)	30 (33.7)	37 (46.8)	46 (35.9)	31 (45.6)	37 (35.9)
Strongly Disagree	8 (15.4)	23 (17.4)	1 (4.2)	10 (9.4)	12 (27.9)	17 (16.4)	20 (39.2)	11 (12.4)	17 (21.5)	24 (18.8)	16 (23.5)	17 (16.5)
D. BASES FOR ADVANCEMENT												
People think differently about what is important in helping a person get ahead. Which one do you think is most important in helping a person get ahead?												
Brains	9 (17.3)	10 (7.7)	0 (.0)	8 (7.8)	4 (9.5)	6 (5.8)	5 (9.8)	7 (7.9)	1 (1.2)	11 (8.7)	2 (3.0)	5 (4.9)

TABLE 11 -- Continued

	WEST				NORTH				SOUTH			
	NYC		Control		NYC		Control		NYC		Control	
	female	male	female	male	female	male	female	male	female	male	female	male
Personality	4 (7.7)	9 (6.9)	3 (12.5)	10 (9.7)	5 (11.9)	17 (16.5)	9 (17.7)	12 (13.5)	8 (10.1)	15 (11.8)	6 (9.0)	15 (14.1)
Knowing the right people	2 (3.9)	10 (7.7)	0 (.0)	8 (7.8)	0 (.0)	11 (10.7)	2 (3.9)	7 (7.9)	4 (5.1)	7 (5.5)	9 (13.4)	6 (5.8)
Good Luck	0 (.0)	0 (.0)	0 (.0)	1 (1.0)	0 (.0)	1 (1.0)	0 (.0)	1 (1.1)	0 (.0)	0 (.0)	0 (.0)	0 (.0)
Hard Work	10 (19.2)	20 (15.4)	2 (8.3)	24 (23.3)	7 (16.7)	29 (28.2)	11 (21.6)	24 (27.0)	21 (26.6)	37 (29.1)	17 (25.4)	23 (22.3)
A Good Education	27 (51.9)	81 (62.3)	19 (79.2)	51 (49.5)	25 (59.5)	38 (36.9)	24 (47.1)	37 (41.6)	40 (50.6)	54 (42.5)	24 (35.8)	53 (51.5)
I Don't Know	0 (.0)	0 (.0)	0 (.0)	1 (1.0)	1 (2.4)	1 (1.0)	0 (.0)	1 (1.1)	5 (6.3)	3 (2.4)	9 (13.4)	1 (1.0)

Notes: (a) The statistics in this table are the number of observation in the cell and the percent in that cell, based on the column total for each attitudinal question.

(b) Percentage may not add to 100 due to rounding.

Similarly, over 27 percent of both the NYC and control group males in the west and 34 percent of female controls in the south agreed that "you don't get ahead by working hard; you get ahead by knowing the right people". In contrast, only 16 percent of female NYC's in the north agreed with this statement.

Further details in responses to questions concerning work attitudes, for ethnic groups and regions, are presented in Appendix Tables 27-V, 28-V, and 29-V.

Self-Esteem. As in the case of other attitudinal responses, there appears to be no consistent difference in self-esteem between NYC and control groups. There are some interesting differences for particular sex-regional groups in response to specific questions, however. For example, the number who agreed that "on the whole, I am satisfied with myself" varied from 58 percent of females in the control group in the west to 72 percent of male NYC enrollees in the west and 76 percent of female controls in the south.

Whereas only 2.5 percent of NYC females in the south agreed that "I feel that I do not have much to be proud of", almost nine percent of the females in the control group in the south and over 20 percent in the north agreed with this statement (Table 11).

Those who agreed that "At times I think I am no good at all" ranged from under 25 percent of NYC females in the west, north and south to over 37 percent of females in the control group in the west and to 48 percent of the male control group in the north.

Although there is no consistent pattern of differences in self-esteem between NYC and control samples within ethnic groups, there is some evidence of lower levels of self-esteem among Negroes compared with whites, especially in the north and west. (Appendix Table 27-V, 28-V, and 29-V). For example, smaller percentages of Negroes in the NYC group reply that "on the whole I am satisfied with myself" (as compared with whites) in all three regions; and this is also true of the control samples in the north and west.

Bases for Advancement. Little consistent difference emerged between NYC and control groups in response to the question, "What do you think is most important in helping a person get ahead?" Among females, a larger percentage of the NYC group stressed the importance of "hard work" and "a good education", in contrast with "knowing the right people". Females generally appeared to rate these virtues higher than males. However, this was not true for males. Except in the south, males were more prone than females to stress the value of "knowing the right people."

When respondents are classified by ethnic origin (Appendix Tables 27-V, 28-V, and 29-V), there are no consistent differences between NYC and control groups; but there are differences between Negroes and whites. In each of the three regions, whites give greater stress to "hard work" than Negroes and Negroes give greater stress than whites to "a good education" as the most important factor in advancement. It is notable, however, that "a good education" is cited as the most important factor by the largest percentage of almost all ethnic groups, regardless of region or NYC status.

D. Summary

When compared on the basis of such socio-demographic variables as age, sex, ethnic origin, family income and father's education, the NYC and control samples are seen to be similar, as one might expect from the methods of selection. However, since other variables, such as intelligence, motivation, personality, etc., have not been measured, there remains the possibility that the two samples were not drawn from the same population. A statistical test presented in this chapter indicates that they were not drawn from the same population, in spite of their broad objective similarities.

The descriptive tabulations presented in this chapter indicate that the NYC enrollees, as compared with the control group, have completed more years of high school and have a higher probability of graduation. They also have a greater probability of going on to college or other post-high school training.

However, these educational benefits experienced by the NYC group are not matched by equivalent labor market benefits in the post-high school period. The tabulations indicate that the control group has gained greater hourly wages and total earnings than the NYC group, in spite of a slightly lower level of employment and labor force participation. This is partly attributable to a longer period of availability in the labor market for the control group.

It should be borne in mind that these cross-tabulations do not reflect the interaction of variables, with appropriate weighting, as in the multivariate regression models presented in subsequent chapters. Thus, these gross effects can change when a more complete adjustment is made for difference between the two samples.

Little difference is found between NYC and control groups in attitudes twoard education, work, self-esteem, and the bases for advancement. Interesting differences are found, however, in attitudes classified by region, sex and ethnic origin.

The attitudes of NYC enrollees, in evaluation of their NYC experiences, are described and analyzed in Chapter VIII.

CHAPTER IV

STATISTICAL ANALYSIS OF PROJECT COSTS

A. Introduction

The major conceptual issues and data description required for economic analysis were described in Chapter II. This chapter reports the statistical analysis of costs for the national sample of in-school and summer Neighborhood Youth Corps projects in operation during the 1965-66 and 1966-67 fiscal years. The estimated costs will serve as inputs into Chapter VII, Investment Analysis of the Neighborhood Youth Corps. Since both average cost-benefit and marginal cost-benefit analysis will be performed, average costs and marginal costs to the sample of in-school and summer NYC projects will be estimated. The technique for estimating average costs, net of the influence of out-of-school enrollment, is discussed in Chapter II on pages 43 and 44.

First, a total cost function is estimated for the weighted national sample of projects.[1] This will provide estimates of marginal cost per NYC participant as well as the data needed to impute average costs of the in-school and summer program components. Then, a separate unweighted

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[1] A useful reference on statistical cost analysis is J. Johnson Statistical Cost Analysis, (New York: McGraw-Hill, 1960).

total cost function is estimated for each of three regions, north, south, and west. No weighting of these three regions taken separately is required. Major emphasis in this study is put on the analysis of the national sample, rather than the regional sub-samples, since this study attempts to evaluate the national universe of NYC projects and not the projects of a particular region. Next, costs are analyzed by type of project--"summer only" and "in-school and summer combined." Analysis of "in-school only" projects is not possible since there are only two such projects in the sample. Separate analysis is also performed for those in-school and summer projects which have and do not have an out-of-school component. Finally, private costs are analyzed for the sample as a whole.

B. Framework of Analysis: Total and Federal Costs

1. The Weighting Procedure[2]

As we mentioned in the chapter on sample design, in order to insure that we have a sufficient number of American Indian and Mexican-American NYC participants in the national sample, the universe of NYC projects was stratified into three regions. The probability of sample selection among these regions is different. For instance, the probability that a given NYC participant will be selected into the sample is 1/155.1

[2]For mathematical discussions of this weighting procedure see, for instance, Lawrence R. Klein, A Textbook of Econometrics, (Evanston, Illinois: Row, Peterson and Co., 1953), pp. 305-313, and N. R. Draper and M. Smith, Applied Regression Analysis, (New York: John Wiley and Sons, 1968), pp. 77-81. We are indebted to Teh-wei Hu for assistance in the exposition of this discussion.

in the west while it is 1/403.8 in the north. This means that, without appropriate correction, sample units from the west will have a greater weight in the overall national sample than will sample units from the north, when, in fact, their weights would be the same in an unstratified random sample.

When we apply ordinary regression techniques using this type of stratified sample survey data, we find there are two possible sources of bias, one with respect to the efficiency of the variance of the regression coefficient and the other with respect to the estimate of the regression coefficient.

First, the common assumption in regression analysis is that the variance of the disturbance term is constant; that is, the variance of the disturbance term has the same value for all groups of sample observations. But in this study, the behavior of the NYC participants and controls in one region may be different from that in another region. Also, the different composition of ethnic groups within each region may contribute to different behavior patterns among the various regions. Thus, the variance of the disturbance terms may not be constant among regions. For the combined sample of the three regions, this lack of constant variance will have the effect of causing the variance of the regression coefficients to not be at a minimum. The practical result of this bias is that we may fail to reject the hypothesis that a given regression coefficient is equal to zero, when, in fact, the coefficient is statistically significant from zero. To correct for this bias, the sample weights--the square root of the reciprocal of the probability of sample selection for

each observation--are employed as indicated in equation (1) below. That is, each observation for each variable is multiplied by the weight factor. In addition, the weight factor is included as a separate independent variable while the usual constant term in the equation is suppressed.

A second, perhaps more serious, bias lies in the estimation of the regression coefficient. The chosen sample is based on different probabilities of sampling among the three stratums. This implies that the proportional contribution of each stratum of the sample in estimating the regression coefficients is not the same as it would have been had each sample observation been chosen with equal probability among the three regions. Bias in the regression coefficient of the regression equation will not occur if all samples are chosen with the same probability. In order to avoid the biased estimates, the sample weights must be employed as shown in equation (1) and elsewhere. The weighting adjustment implies that those observations which are sampled at a relatively high probability of selection are given a relatively low weight in the regression analysis. Therefore, the weighted regression gives us the regression coefficients as if the sample observations were chosen with the same probability among all regions.

2. The Total Sample

Cost Qualifications. The costs of the Neighborhood Youth Corps projects are broken down into two broad components--federal and sponsor share. Added together, these represent total costs. Federal costs are mainly the variable costs of the program operation such as the wages of the program participants, while the sponsor costs are mainly fixed costs, and they are largely joint in nature. While the federal costs displayed in Table 12 represent an actual commitment of federal government resources

TABLE 12

TOTAL COSTS AND TOTAL ENROLLMENTS FOR THE NATIONAL SAMPLE OF IN-SCHOOL AND SUMMER NEIGHBORHOOD YOUTH CORPS PROJECTS IN OPERATION DURING THE 1965-66 AND 1966-67 FISCAL YEARS

Project	Total Costs ($100)	Federal Share ($100)	Total Enrollment		
			In-School	Summer	Out-of-School
1	11,938	9,014	3,780	2,146	0
2	23,422	19,902	4,740	987	0
3	9,010	7,989	2,071	73	0
4	3,890	3,374	1,195	108	0
5	788	622	153	151	0
6	846	705	0	121	25
7	2,406	1,835	330	220	0
8	2,591	2,007	505	274	0
9	8,157	6,769	1,216	56	0
10	1,506	1,175	297	58	0
11	677	574	126	80	0
12	6,538	5,285	725	333	0
13	1,787	1,638	230	169	158
14	15,686	13,929	0	3,753	547
15	629	629	0	105	0
16[a]	124,332	87,266	23,377	17,681	0
17	3,984	3,524	499	58	152
18	2,757	2,076	277	62	0
19	3,018	2,712	401	40	0
20	380	300	113	3	0
21[b]	6,749	6,018	1,141	168	0
22	94,405	71,629	8,713	9,185	4,466
23	432	340	48	13	0
24	8,905	7,509	450	329	513
25 & 26	1,107	836	0	62	0

TABLE 12 - Continued

Project	Total Costs ($100)	Federal Share ($100)	Total Enrollment		
			In-School	Summer	Out-of-School
27	4,819	4,194	788	168	0
28	124	97	0	21	2
29	5,442	4,280	412	67	0
30	5,002	4,374	731	116	0
31	1,561	1,374	371	179	0
32	901	790	98	9	0
33	237	194	0	46	24
34	585	463	0	106	0
35[b]	40,084	34,162	3,260	3,075	1,522
36	2,180	1,946	252	193	0
37 & 38	1,490	1,209	95	210	53
39	3,469	2,430	308	252	0
40[b]	1,582	1,336	341	136	0
41	132	116	0	35	0
42	2,803	2,107	1,082	0	0
43	27,740	26,179	3,158	1,891	952
44	9,326	8,342	0	2,823	0
45	1,466	1,234	272	286	0
46	2,811	2,456	471	14	0
47	6,049	4,528	1,070	229	0
48	4,152	3,504	616	479	0
49	182	137	39	0	0
50	633	551	148	94	0
51	2,152	1,096	184	102	108
52	650	586	101	58	0
53	8,408	6,931	485	101	601
54	708	624	96	60	11

TABLE 12 -- Continued

Project	Total Costs ($100)	Federal Share ($100)	Total Enrollment		
			In-School	Summer	Out-of-School
Average (Unweighted)[c]	19,010 (38,106)	14,180 (26,997)	2,106 (6,963)	2,312 (5,352)	179 (645)
Average (Weighted)[d]	2,689 (2,352)	2,168 (1,866)	306 (343)	231 (292)	45 (110)

Source: 1) Costs--Neighborhood Youth Corps, Division of Program Review and Analysis, Ongoing and Terminated Projects (for) FY 66. For week ending Fiscal 1966, RPT 20073 and RPT 20119.

2) Enrollment--Based on BWA 0051-A--Historical Detail Listing, Neighborhood Youth Corps, Highlights of Monthly Sponsor Activity Reports, Based on BWTP-9. Report Date 31 May 1968.

Notes: a) This project extended into the 1967-68 fiscal year. It was drawn into the sample six times. See Appendix I.

b) This project was drawn into the sample two times. Thus, counting, a) above, there are 60 observations on which cost analysis is based. See Appendix I.

c) These averages include the increased representation of projects #16, #21, #35, and #40. The numbers in parentheses are standard deviations.

d) See text for a description of the weighting procedure used. Note "c" also applies here.

to the NYC program, the sponsor costs may or may not do so, depending on whether or not the cost inputs are joint in nature. As indicated in Chapter II, it is most likely that the sponsor share is largely joint since this share originates from the shadow pricing of resources which often are already in use by the local sponsor, such as building space in operating schools. In a similar vein, the costs involved in administering the NYC projects at the federal level, while they represent a commitment of government resources, are largely joint among the in-school, summer, and out-of-school components and, to this extent, they cannot be prorated in a non-arbitrary manner between the variants of the NYC projects. Also, some, but not all, of these costs can be considered as part of the general cost of running the government, and hence, are joint in an even broader sense. These federal government administration costs are not distributed for type of NYC program for either fiscal year 1965-66 or fiscal year 1966-67. In fact, for fiscal year 1965-66, the total federal government obligations (actual expenditures are not reported) are not allocated among the three types of NYC projects--summer, in-school or out-of-school. To the extent that some of these costs are not joint, failure to include these costs will result in an understatement of marginal costs in the estimated results.

Finally, while it is undoubtedly the case that federal expenditures more closely represent true social economic costs than do the sponsor costs, there are at least two cases where federal costs may deviate from social economic costs. First, if NYC participants are earning more at their NYC jobs than they could have at some other job the difference

represents a transfer payment to the NYC participants and federal costs then overstate social economic costs. Second, if NYC participants are earning less at their NYC jobs than they could at some other job, then the difference is an opportunity cost which must be added to federal costs to get a better approximation of total economic costs.

The Total Cost Function and Marginal Cost. As defined earlier in Chapter II, marginal cost is the extra or additional cost incurred when an additional NYC participant is added to the program. Thus, marginal cost is equal to the change in total cost as total enrollment changes by one participant.

In a linear total cost function (such as equation (4) on page 103) marginal cost is equal simply to the regression coefficient d_3, which shows the change in total cost for a one unit change in enrollment. However, for equation (1), a non-linear total cost function, this change is equivalent to the sum of the expression containing the three regression coefficients for X_3, once the cost function has been partially differentiated with respect to X_3. Thus, marginal cost to the combined in-school and summer enrollment is equal in equation (1) to the expression

$$a_3 X_{1_i}^{1/2} + 2a_4 X_{3_i} X_{1_i}^{1/2} + 3a_5 X_{3_i}^2 X_{1_i}^{1/2}$$

In general, a non-linear total cost function is preferred over a linear cost function. The linear cost function implies a constant marginal cost as total enrollment changes. However, the non-linear marginal cost function implies that marginal cost changes as total enrollment changes due to changing returns to scale. This latter functional form is more theoretically reasonable.

Total Cost--In-School and Summer Enrollment Combined. Given these qualifications, the weighted total cost function which allows an estimation of marginal cost per NYC participant is as follows:

$$(1)\quad Y_{1_i} X_{1_i}^{\frac{1}{2}} = a_1 X_{1_i}^{\frac{1}{2}} + a_2 X_{2_i} X_{1_i}^{\frac{1}{2}} + a_3 X_{3_i} X_{1_i}^{\frac{1}{2}} + a_4 X_{3_i}^2 X_{1_i}^{\frac{1}{2}} + a_5 X_{3_i}^3 X_{1_i}^{\frac{1}{2}} + a_6 X_{4_i} X_{1_i}^{\frac{1}{2}} + a_7 X_{4_i}^2 X_{1_i}^{\frac{1}{2}} + U_{1_i}$$

where

Y_{1_i} = total costs (federal and sponsor share) for the time period of the project in hundred of dollars, by project;

X_{1_i} = weight factor, the normalized value of the inverse of the probability of project selection, by project;

X_{2_i} = length of project, in months;

X_{3_i} = total combined in-school and summer enrollment, by project;

X_{4_i} = total out-of-school enrollment, by project;

U_{1_i} = a random disturbance,

$a_1, a_2, \ldots, a_7$ = regression coefficients; and,

i = observations 1, 2, 3, ..., n.

This is a cubic equation. In terms of a cost function given that $a_3 > 0$, $a_4 < 0$ and $a_5 > 0$ in equation (1) above, this form implies that first there are increasing returns to scale as output increases, that is, for a given increase in output, total costs increase proportionately less; then, as output continues to expand, beyond some point, there will be decreasing returns to scale--total costs will increase proportionately more for a given increase in output.

Equations of the same form are estimated for Y_{2_i}, federal share, in hundreds of dollars, and Y_{3_i}, sponsor share $(Y_{1_i} - Y_{2_i})$, in hundreds of dollars.

As shown in Table 13, the weighted average size of the in-school enrollment was 360 participants. The weighted average size of the summer enrollment was 321 participants. The weighted average out-of-school enrollment in these programs was about 45. These participants are defined as the total number of persons who were enrolled in the program for one day or longer. Combining this average enrollment data with the marginal cost estimates in Table 13 allows an estimate of weighted average costs for combined in-school and summer enrollment after the total cost of the out-of-school component has been eliminated by appropriate proration. Table 14 displays the results. Weighted average costs per NYC participant for the combined in-school and summer enrollment are $402, $313, and $81 for the total (sponsor plus federal), federal and sponsor shares respectively.[3]

Although the total average cost figure is greater than the federal average cost figure, the sponsor's share could be made up of contributions in-kind. As indicated in Chapter II, these contributions in-kind must

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[3] In contrast, when the effect of the out-of-school component is not prorated, average costs are higher. The weighted average total cost (federal plus sponsor share) per NYC participant was $433. The weighted average federal cost per NYC participant (in-school plus summer and out-of-school) across the nation was $341. However, since out-of-school enrollments and costs are included in these estimations, the marginal cost figures in Table 14 and these average cost figures are not comparable. These average cost figures will not be used in the average cost-benefit analysis in Chapter VII since they reflect both the out-of-school cost as well as the out-of-school enrollment. The appropriate average cost figures for the use in the cost-benefit analysis will reflect only the cost effects of the in-school and summer cost and enrollment.

TABLE 13

ANALYSIS OF TOTAL COSTS, WEIGHTED NATIONAL SAMPLE OF IN-SCHOOL AND SUMMER NEIGHBORHOOD YOUTH CORPS PROJECTS, 1965-66 AND 1966-67 FISCAL YEARS FOR COMBINED IN-SCHOOL AND SUMMER ENROLLMENTS, IN DOLLARS

Independent Variable	Federal and Sponsor Share	Federal Share	Sponsor Share
Weight Factor	1,501[a] (17,094)[b]	2,166 (14,809)	-665 (4,623)
Project Length in Months	-111 (2,242)	-656 (1,943)	546 (606)
Total In-School and Summer Enrollment	524** (51)	451** (44)	73** (14)
Total In-School and Summer Enrollment, Squared	-.00[c]** (.00)	-.00[f]** (.00)	-.00 (.00)
Total In-School and Summer Enrollment, Cubed	.00[d]** (.00)	.00[g]** (.00)	.00[h]* (.00)
Total Out-of-School Enrollment	781** (144)	695** (125)	86* (39)
Total Out-of-School Enrollment, Squared	.00[e]* (.00)	.00 (.00)	.00[i]** (.00)
Number of Observations	60	60	60
S. E. E.	67,697	58,650	18,307
$\bar{R}^2$	.9171	.9012	.8959
F-ratio	94.14	77.73	73.37

Notes: a) partial regression coefficient

b) standard error of the partial regression coefficient

c) t = 3.30 (-.00041952/.00012701)

d) t = 3.14 (.00000001/.00000000)

TABLE 13 -- Continued

Notes: (Continued)

e) t = 2.2 (.00259907/.00107176)

f) t = 3.28 (-.00036041/.00011004)

g) t = 3.00 (.00000001/.00000000)

h) t = 2.01 (.00000000/.00000000)

i) t = 2.74 (.00079526/.00028983)

Notes c) through i) represent the partial regression coefficient divided by its standard error.

S. E. E. is the standard error of the estimate.

$\bar{R}^2$ is the coefficient of determination adjusted for degrees of freedom.

* = significant at the .05 level.

** = significant at the .01 level.

TABLE 14

AVERAGE AND MARGINAL COSTS AT AVERAGE PROJECT ENROLLMENT, WEIGHTED NATIONAL SAMPLE OF IN-SCHOOL AND SUMMER NEIGHBORHOOD YOUTH CORPS PROJECTS 1965-66 AND 1966-67 FISCAL YEARS, IN DOLLARS[a]

Enrollment	Federal and Sponsor Share		Federal Share		Sponsor Share	
	Marginal Cost	Average Cost	Marginal Cost	Average Cost	Marginal Cost	Average Cost
In-School and Summer Enrollment Combined[b]	475	402	409	313	66	81
Out-of-School Enrollment[c]	804	---	711	---	93	---

Notes: a) Average cost for in-school and summer enrollment combined is estimated by subtracting the product of marginal cost for out-of-school enrollment times average project out-of-school enrollment from total project cost. The difference is then divided by average project in-school and summer enrollment. Source of data: Tables 12 and 13.

b) Due to rounding error, marginal costs for federal and sponsor share taken separately do not add to marginal costs for federal and sponsor share combined.

c) Average costs are not estimated for out-of-school enrollment.

have shadow prices attached to them. This is often difficult to do. Thus, the average cost figures for the federal share are considerably more accurate than is average cost for the federal plus sponsor shares. The degree of which the sponsor share actually represents a commitment of resources to the NYC projects is not at all clear.

Marginal cost estimates are also shown in Table 14. Marginal costs at average project enrollment for the combined in-school and summer enrollments are $475 for the federal plus sponsor share. Marginal costs are $409 for the federal share alone and $66 for the sponsor share alone.

Marginal costs for the federal share are positive and decreasing at average project enrollment. Thus, the average NYC project is operating in an area of increasing returns to scale. Conceptually, in such a situation, marginal costs should be less than average costs. However, as the results in Table 14 show, the opposite is the case. The exact reason for this is not clear, but part of the reason may be due to the fact that average costs to the in-school and summer component have been estimated by netting out the effect of the out-of-school component.

As indicated earlier, the cost of the out-of-school component is netted out by multiplying the marginal cost of the out-of-school component times the average out-of-school enrollment for the average size NYC project. This product is then subtracted from total cost and the difference is divided by total in-school and summer enrollment. This procedure assumes the marginal cost is the same for all out-of-school

participants in the average NYC project. In fact, the implication is that marginal cost equals average cost for the out-of-school participant. However, if marginal cost is greater than the actual average cost for out-of-school participants, then this procedure will result in an over-adjustment for the effect of the out-of-school component on total costs. The result of this is that average cost for the in-school and summer component will be underestimated. Thus, these average cost estimates for in-school and summer participants could deviate from the "true" estimates. However, more accurate average cost estimates are not possible given the way in which cost data were reported.

Finally, marginal costs are displayed for out-of-school enrollments but these costs are not representative of costs of the universe of out-of-school projects and should not be interpreted as being so. The study sample is a sample of in-school and summer projects, and not of out-of-school projects. Therefore, these costs will not be discussed in this study.

Marginal costs are estimated for in-school and summer enrollment combined since benefits must be estimated on this basis. For those NYC participants who were in both an in-school and summer NYC project it is not possible to separate those benefits which separately accrue to the in-school and summer component. The benefits are joint products of the two project components. Thus, the emphasis of the cost-effectiveness analysis and, hence, the cost analysis, in this study must be on the combined in-school and summer enrollments.

Total Cost--Separate In-School and Summer Enrollment. However, there is some interest in estimating marginal costs for the total sample for separate in-school and summer enrollments. The equation for this estimation is as follows:

$$(2)\quad Y_{1_i} X_{1_i}^{1/2} = b_1 X_{1_i}^{1/2} + b_2 X_{2_i} X_{1_i}^{1/2} + b_3 X_{4_i} X_{1_i}^{1/2} + b_4 X_{4_i}^2 X_{1_i}^{1/2} + b_5 X_{5_i} X_{1_i}^{1/2}$$

$$+ b_6 X_{5_i}^2 X_{1_i}^{1/2} + b_7 X_{6_i} X_{1_i}^{1/2} + b_8 X_{6_i}^2 X_{1_i}^{1/2} + U_{2_i}$$

where

Y_{1_i}, X_{1_i}, X_{2_i} and X_{4_i} are defined as in equation (1) and

X_{5_i} = total in-school enrollment, by project;

X_{6_i} = total summer enrollment, by project;

U_{2_i} = a random disturbance;

$b_1, b_2, \ldots, b_8$ = regression coefficients; and

i = observations 1, 2, 3, ..., n.

The same equation is estimated for Y_{2_i} and Y_{3_i}, the federal and sponsor share, respectively.

This is a quadratic equation. If the sign of the squared term of a variable, say, X_5, is positive, this implies that marginal costs are increasing as output increases. If the sign of the squared term is negative, this implies that marginal cost is decreasing as total project enrollment increases.

As the results in Tables 15 and 16 show, across the nation, for the fiscal year 1965-66 and 1966-67, it cost the federal government an extra $422 to enroll an additional in-school NYC participant at average project enrollment, and an extra $184 to enroll an additional summer NYC participant at average project enrollment. It is important to stress that these estimates are most reliable at or around the mean values of the enrollment variables in question. This is true of all the estimated values in the study.

Total Costs--Logarithmic Function. The final method by which the total cost function of the total sample will be analyzed is by means of logarithms. A logarithmic total cost function is justified as a functional form because in general the production function upon which a cost function is based is multiplicative in form. In addition, the logarithmic form of the cost function provides important insights into the nature of the total cost function with respect to economies of scale. While we cannot assume that each local NYC project behaves exactly as a firm would, we can assume that the project directors are either maximizing some quantity of output or, what amounts to the same, minimizing costs. Thus, it is of some interest to analyze the nature of economies of scale to the average size NYC project.

The following total cost functions were fitted:

$$(3)\quad \log(Y_{1_i} X_{1_i}^{1/2}) = c_1 \log X_{1_i}^{1/2} + c_2 \log(X_{2_i} X_{1_i}^{1/2}) + c_3 \log(X_{3_i} X_{1_i}^{1/2}) + c_4 \log(X_{4_i} X_{1_i}^{1/2}) + \log U_{3_i} \text{ and,}$$

4. Costs by Type of Project

Analysis of costs by type of project is useful to determine if there are any significant differences in marginal costs among project types. Analysis is performed on four types of projects: the summer project which has no in-school component to it; the combined in-school and summer projects; the in-school or summer project which has an out-of-school component; and the in-school or summer project with no out-of-school component. There are only two in-school projects which have no summer component. Thus, statistical analysis cannot be performed on this set of projects. Due to the failure to record separate costs for the in-school and summer components, this type of project cannot be separated and analyzed in terms of its separate in-school and summer components. However, estimates of the marginal costs of the two separate components can be made for this type of project. As indicated above, we are not interested in the measures of marginal cost for the out-of-school participants per se. The measures we derive for the out-of-school component should not be taken to represent national estimates of marginal cost for the out-of-school project participants because we do not have a representative sample of out-of-school projects. Rather, separate analysis is performed in order to see how in-school and summer program marginal costs change when a given in-school or summer project also has an out-of-school component. The marginal costs for the out-of-school component are relevant only to those out-of-school projects which are a component of an in-school or summer NYC project.

Summer and In-School/Summer Projects. There are nine projects having only a summer component. And, there are 49 projects having a combined in-school and summer component.

A linear cost function was used to estimate marginal costs to the 49 combined in-school and summer projects. The linear cost function was estimated to serve as a basis of comparison for the linear estimation of marginal costs for the nine summer only projects.

In-school and summer enrollment is combined in this analysis since cost-effectiveness analysis will be performed for these two types of projects. As indicated above many students who were enrolled in a combined in-school and summer project will have participated in both project components, and the benefits they gain from this participation will be joint outputs with respect to the combined project.

The linear cost function is as follows:

$$(6)\quad Y_{1_i} X_{1_i}^{1/2} = h_1 X_{1_i}^{1/2} + h_2 X_{2_i} X_{1_i}^{1/2} + h_3 X_{3_i} X_{1_i}^{1/2} + h_4 X_{4_i} X_{1_i}^{1/2} + U_{6_i}$$

where the terms are defined as in equation (1). U_{6_i} is a random disturbance; h_1, h_2, h_3 and h_4 are regression coefficients; and i equals observations 1, 2, 3, ..., n. Total cost functions of the same type are estimated for Y_{2_i} and Y_{3_i}, also. The results are shown in Tables 20 and 21.

Based on the linear cost function, marginal costs for in-school and summer enrollment for the 49 combined in-school and summer projects

TABLE 20

ANALYSIS OF TOTAL COSTS, WEIGHTED NATIONAL SAMPLE OF IN-SCHOOL AND SUMMER NEIGHBORHOOD YOUTH CORPS PROJECTS, 1965-66 AND 1966-67 FISCAL YEARS, BY TYPE OF PROJECT: SUMMER ONLY AND IN-SCHOOL/SUMMER COMBINED, IN DOLLARS[d]

	In-School/Summer Combined			Summer Only		
Independent Variable	Federal and Sponsor Share	Federal Share	Sponsor Share	Federal and Sponsor Share	Federal Share	Sponsor Share
Weight Factor	-29,519 (66,860)	-15,410 (64,598)	-14,109 (17,362)	13,725 (19,868)	12,338 (16,541)	1,388 (4,170)
Project Length in Months	7,542 (5,834)	6,442 (5,636)	1,100 (1,515)	938 (3,784)	388 (3,150)	550 (794)
Total In-School and/or Summer Enrollment	318** (16)	236** (15)	82** (4)	403** (103)	359** (86)	43 (22)
Total Out-of-School Enrollment	1,023** (104)	906** (100)	117** (27)	23 (751)	15 (625)	8 (158)
Number of Observations	49	49	49	9	9	9
S. E. E.	81,104	78,360	21,061	62,943	52,403	13,209
$\bar{R}^2$	.9595	.9409	.9411	.9399	.9461	.8374
F-ratio	266.60	178.98	179.62	19.54	21.92	6.44

TABLE 20 -- Continued

Notes: (a) There are only two observations for the pure In-School NYC program. No regression analysis can be performed on this set.

(b) partial regression coefficient.

(c) standard error of partial regression coefficient.

(d) Since these are linear total cost functions, marginal cost is equal to the partial regression coefficient. Thus, for the combined in-school and summer project, marginal cost for combined in-school and summer enrollment is $318 for the federal plus sponsor share.

S. E. E. is the standard error of the estimate.

$\bar{R}^2$ is the coefficient of determination adjusted for degrees of freedom.

* = significant at the .05 level.

** = significant at the .01 level.

TABLE 21

AVERAGE AND MARGINAL COSTS, WEIGHTED NATIONAL SAMPLE OF IN-SCHOOL AND SUMMER NEIGHBORHOOD YOUTH CORPS PROJECTS, 1965-66 AND 1966-67 FISCAL YEARS, BY TYPE OF PROJECT: SUMMER ONLY AND IN-SCHOOL/SUMMER COMBINED[a]

	In-School Summer Combined	Summer
Number of Observations	49	9
Average Project Length in Months:		
Weighted	6.6[b] (5.1)[c]	7.1 (7.3)
Unweighted	13.4 (7.0)	4.1 (3.8)
Average In-School and/or Summer Enrollment:		
Weighted	670 (591)	280 (340)
Unweighted	6,489 (13,361)	786 (1,438)
Average Out-of-School Enrollment:		
Weighted	47 (119)	29 (54)
Unweighted	203 (709)	66 (180)
Average Project Cost (Federal and Sponsor Share):		
Weighted	$302,600 (242,550)	$143,400 (134,400)
Unweighted	$2,272,700 (4,126,700)	$317,600 (553,200)

TABLE 21 -- Continued

	In-School and Summer Combined	Summer
Average Project Cost (Federal Share):		
Weighted	$244,100 (191,100)	$124,700 (119,700)
Unweighted	$1,690,100 (2,916,700)	$281,200 (492,800)
Average Cost/Enrollee (Federal and Sponsor Share):		
Weighted: In-School, Summer and Out-of-School Enrollment Combined	$422	$464
In-School and Summer Enrollment Only	$380	$510
Unweighted: In-School, Summer and Out-of-School Enrollment Combined	$340	$373
Average Cost/Enrollee (Federal Share):		
Weighted: In-School, Summer and Out-of-School Enrollment Combined	$340	$403
In-School and Summer Enrollment Only	$301	$444
Unweighted: In-School, Summer and Out-of-School Enrollment Combined	$253	$330
Weighted Marginal Cost/In-School and/or Summer Enrollee (Federal and Sponsor Share)	$318	$403
Weighted Marginal Cost/In-School and/or Summer Enrollee (Federal Share)	$236	$359

TABLE 21 -- Continued

Notes: a) There are only two observations for the pure in-school program. No statistical analysis can be performed on this set.

b) Variable mean.

c) Standard deviation of the mean.

are $318 for the combined federal and sponsor share. They are $236 for the federal share. In contrast, marginal costs for the nine summer programs are $403 for the combined federal and sponsor share and $359 for the federal share alone. Thus, marginal costs for the summer only project are about $100 higher than marginal costs for the in-school/summer project for both total and federal share. One possible reason for this could be higher average fixed costs of the summer program, due to the fact that the various fixed costs for this type of program are spread over a much shorter time.

Average costs for the average summer project are also higher than average costs for the combined in-school-summer project. Average costs for the summer program are $510 for the federal plus sponsor share and $444 for the federal share only after netting out the effect of the out-of-school component. In contrast, average costs for the combined in-school and summer program are $380 for the federal plus sponsor share and $301 for the federal share only after netting out the effect of the out-of-school component.

Projects With and Without an Out-of-School Component. Finally, marginal costs of the in-school, summer and out-of-school enrollments are measured for those types of projects which have and do not have an out-of-school component. The purpose is to determine how marginal costs for in-school and summer projects differ in the presence and absence of an out-of-school component. No cost-effectiveness analysis will be done based on these estimates, however, since there is no

a priori reason to assume that students enrolled in an in-school or summer project which happens to have an out-of-school component will behave any differently from those in-school or summer participants who were enrolled in a project which does not have an out-of-school component. Of course, the two types of enrollees could interact with each other in as yet undetermined ways to influence each other's behavior. Or, projects with an out-of-school component may be structurally different such that the probability of gain in benefit was significantly different from that in-school or summer project without an out-of-school component. But no information exists as yet concerning this possibility. The literature to date has not speculated on these matters. If such a difference were to be discovered but no sound conceptual basis for the difference existed, then a cost-effectiveness analysis of these two types of NYC projects would not have too much meaning.

A linear total cost function was estimated for the 45 NYC projects which did not have an out-of-school component and for the 15 projects which did have an out-of-school component.

The linear equation for the sub-sample of projects with no out-of-school component is

$$(7)\quad Y_{1_i} X_{1_i}^{1/2} = p_1 X_{1_i}^{1/2} + p_2 X_{2_i} X_{1_i}^{1/2} + p_3 X_{5_i} X_{1_i}^{1/2} + p_4 X_{6_i} X_{1_i}^{1/2} + U_{7_i}$$

and the linear equation for the projects having an out-of-school component is

$$(8)\quad Y_{1_i} X_{1_i}^{1/2} = q_1 X_{1_i}^{1/2} + q_2 X_{2_i} X_{1_i}^{1/2} + q_3 X_{4_i} X_{1_i}^{1/2} + q_4 X_{5_i} X_{1_i}^{1/2} + q_5 X_{6_i} X_{1_i}^{1/2} + U_{8_i}$$

TABLE 22

ANALYSIS OF TOTAL COSTS, WEIGHTED NATIONAL SAMPLE OF IN-SCHOOL AND SUMMER NEIGHBORHOOD YOUTH CORPS PROJECTS, 1965-66 AND 1966-67 FISCAL YEARS, BY TYPE OF PROJECT: WITH AND WITHOUT AN OUT-OF-SCHOOL COMPONENT, IN DOLLARS[c]

Independent Variables	No Out-of-School Component			With Out-of-School Component		
	Federal and Sponsor Share	Federal Share	Sponsor Share	Federal and Sponsor Share	Federal Share	Sponsor Share
Weight Factor	38,817[a] (25,123)[b]	42,006 (21,634)	-3,189 (6,599)	-2,209 (26,264)	-3,512 (31,422)	1,303 (12,905)
Project Length in Months	776 (2,876)	198 (2,476)	578 (755)	742 (3,560)	923 (4,259)	-181 (1,749)
In-School Enrollment	439** (43)	373** (37)	66* (11)	406** (105)	334* (126)	72 (52)
Summer Enrollment	122 (65)	14 (56)	108** (17)	260** (60)	229* (72)	32 (30)
Out-of-School Enrollment	---	---	---	1,007** (211)	797** (252)	210 (104)
Number of Observations	45	45	45	15	15	15
S. E. E.	70,967	61,110	18,640	66,637	79,723	32,742
$\bar{R}^2$	.8295	.7653	.8676	.9626	.9205	.7870
F-ratio	170.55	135.03	145.60	176.38	83.10	23.42

TABLE 22 -- Continued

Notes: (a) partial regression coefficient.

(b) standard error of the partial regression coefficient.

(c) Since these are linear total cost functions, marginal cost is equal to the partial regression coefficient. Thus, for projects with no out-of-school component, marginal cost for the in-school enrollment for federal plus sponsor costs is $439.

S. E. E. is the standard error of the estimate.

$\bar{R}^2$ is the coefficient of determination adjusted for degrees of freedom.

* = significant at the .05 level.

** = significant at the .01 level.

where, for equations (7) and (8) the variables are defined as in equation (2) above. U_{7_i} and U_{8_i} are random disturbances; p_1, p_2, p_3, p_4 and q_1, q_2, ..., q_5 are regression coefficients; and i equals observations 1, 2, 3, ..., n. The estimated total cost functions are shown in Table 22.

For those projects with no out-of-school component, marginal costs for in-school enrollment based on federal plus sponsor share are $439. They are $373 for the federal share alone.

Marginal costs for the summer enrollment are not significantly different from zero for the federal plus sponsor share or the federal share, respectively. Again, in such a case, marginal costs are equal to average costs and average costs are constant.

In contrast, for those projects with an out-of-school component, linear marginal costs for summer enrollment are $260 for the federal plus sponsor share and $299 for the federal share.

Linear marginal costs for in-school enrollment for the federal share are similar between the two groups of projects. They are $373 for the sub-group with no out-of-school component and $334 for the sub-group with the out-of-school component.

Average cost for the project with no out-of-school component is $393 for the federal and sponsor share combined and $312 for the federal share only. Average cost for the in-school and summer enrollment for the projects with an out-of-school component is $340 for the federal and sponsor share combined and $294 for the federal share only after the effect of the out-of-school component has been netted out. (See Table 23.)

TABLE 23

CHARACTERISTICS OF WEIGHTED NATIONAL SAMPLE OF IN-SCHOOL AND SUMMER NEIGHBORHOOD YOUTH CORPS PROJECTS, FISCAL YEARS 1965-66 AND 1966-67, FOR PROJECTS WITH AND WITHOUT AN OUT-OF-SCHOOL COMPONENT

	No Out-of-School Component	Out-of-School Component
Number of Observations	45	15
Average Project Length in Months	6.6 (5.1)	7.3 (6.5)
Average In-School Enrollment	382 (352)	295 (316)
Average Summer Enrollment	198 (256)	329 (372)
Average Out-of-School Enrollment	---	178 (159)
Average Project Cost (Federal Plus Sponsor Share)	$228,100 (171,900)	$391,300 (344,700)
Average Project Cost (Federal Share)	$180,700 (126,100)	$325,000 (282,800)
Average Cost/In-School and Summer Enrollee (Federal plus Sponsor Share):		
In-School and Summer Enrollment Only	$393	---
Average Cost/In-School and Summer Enrollee (Federal Share):		
In-School and Summer Enrollment Only	$312	---
Average Cost/In-School, Summer and Out-of School Enrollee (Federal plus Sponsor Share):		
In-School, Summer, and Out-of-School Enrollment Combined	---	$488
In-School and Summer Enrollment Only	---	$340
Average Cost/In-School, Summer and Out-of School Enrollee (Federal Share):		
In-School, Summer and Out-of-School Enrollment Combined	---	$405
In-School and Summer Enrollment Only	---	$294

C. Private Costs

The issue of private costs of the NYC program has been discussed extensively in Chapter II; however, some recapitulation of the main conceptual issues is warranted here. Private costs of the Neighborhood Youth Corps are the costs incurred by the NYC participants as a result of the fact that they have taken part in the program. As with the social cost measures, these are opportunity costs and they can be broken down into two types for purposes of measurement. The first type of cost is the direct cost incurred as a result of taking part in the program. Such costs would be the extra transportation costs involved in going to and from the place of work or in buying special clothing or the net cost difference between eating meals at home and eating meals away from home. With respect to the in-school participants such extra costs are likely to be very low since, for example, the job sites are often on the school premises so that no extra transportation costs are involved. This study did not collect survey data involving such out-of-pocket costs of participation in the NYC. However, estimates of these costs on a weekly basis exist for a national sample of NYC participants.[6] These estimates will be used in this study. The average weekly cost of transportation to work for the in-school participants was about 43 cents, or $1.88 per month. (One month equals 4.333 weeks.) The average weekly cost of

[6]See Leonard H. Goodman and Thelma D. Myint, The Economic Needs of Neighborhood Youth Corps Enrollees, (Washington, D. C.: Bureau of Social Science Research, Inc., August 1969). Final Report submitted to Office of Manpower Research, U. S. Department of Labor. Tables 5A47, 5A48 and 5A49.

meals at work for in-school NYC participants was about 61 cents or about $2.64 per month. Finally, the average weekly cost of snacks at work for in-school participants was about 76 cents or about $3.28 per month. The total weekly cost comes to $1.80 or $7.80 per month.

Unfortunately no direct estimates of such costs exist for the summer NYC participants in the Goodman and Myint study. These can be estimated, however. First, the assumption is made that the transportation and food cost patterns will be more similar between the summer NYC and the the out-of-school NYC than they will be between the summer NYC and the in-school NYC. The basis of this assumption is that greater transportation costs will be involved for the summer NYC since, unlike the in-school NYC participants, they will not often already be at their work site. Also, the summer NYC participants will have somewhat longer hours than in-school participants and thus are more likely to incur greater meal and snack costs. Thus, out-of-school costs will be used as estimates of summer NYC participant out-of-pocket costs, even though they will probably be overestimates of these costs. Weekly transportation costs are about $2.27, or $9.84 per month. Weekly costs of meals at work for the summer NYC amount to about $2.78 or about $12.06 per month. Finally, weekly costs of snacks at work are about $1.40 or about $6.04 per month. In total, these costs amount to about $6.45 per week or about $28.94 per month.

The second category of costs are the costs of leisure foregone as a result of participating in the NYC program. Economic theory

would argue that the costs of this foregone leisure are measured in money terms by the earnings gained in the NYC projects by the NYC participants. Thus, the earnings of the NYC participants represent the cost to them of participating in the program. These costs can be compared with post-NYC labor market experiences of the NYC participants as well as with their scholastic experience.

However, as discussed previously in Chapter II, two questions arise. First, some participants may be receiving a wage rate higher than the opportunity cost to them of their foregone leisure. In such a case, they are receiving a quasi-rent, a payment over and above that which is necessary to encourage them to forego their next best alternative and enroll in the NYC. In such a case, this amounts to a subsidy and private costs are being overstated.

On the other hand, some persons may be receiving an NYC wage rate which is less than the wage rate they could earn if they would seek work in the labor market at large rather than in the NYC program. In this case, the private costs are understated. We have no way of knowing the extent to which either of these cases exist or the extent to which their effects may be cancelling across the sample. Thus, we will simply accept the average NYC earnings per participant as the appropriate measure of private costs.

Finally, it must be remembered that, while these wages represent the opportunity cost to the participants of foregone leisure and other possible costs such as psychological pain cost, participation in the NYC is voluntary. Thus, if the participants are rational, these

TABLE 24[a]

OPPORTUNITY COSTS TO IN-SCHOOL AND SUMMER NEIGHBORHOOD YOUTH CORPS PARTICIPANTS 1965-66 AND 1966-67 FISCAL YEARS, IN DOLLARS

Type of Participant	Total Before-Tax Earnings	Total After-Tax Earnings	Total Months in Program	Cell Size
In-School and/or Summer Participants Combined (Total NYC Sample)	808 (1342)	758 (1238)	7.30 (8.89)	614
Summer Participants Only	633 (1174)	600 (1130)	3.50 (3.90)	158
Participants of In-School and Summer Projects	1089 (1783)	1014 (1598)	9.73 (10.83)	181
In-School Participants Only	722 (1021)	679 (963)	7.91 (8.77)	285

Notes: The standard deviations are in parenthesis.

wages also represent the benefit received for undergoing the above opportunity costs. Therefore, the wages must be treated both as a cost and a benefit to the NYC participant. If no other cost or benefit to the NYC program accrued to the NYC participant, at the margin, his cost-benefit ratio would be equal to one. There is one advantage to counting the wage as a measure of both cost and benefit rather than simply net this wage out as zero cost. The advantage is that, when cost-benefit ratios are being estimated, one avoids the possibility that the denominator in the cost-benefit ratio will be zero. When the denominator, i.e., costs, are zero, the cost-benefit ratio becomes infinite. This clearly is unrealistic because gross private costs are incurred by participating in the NYC program.

As shown in Table 24[a], this measure of cost, in terms of earnings after taxes, is about $758 per NYC participant for the total NYC sample.

D. Summary

The statistical analysis of costs indicates that marginal cost based on total federal share represents the most reliable social cost measure. This is so because many of the sponsor expenditures allocated to the program are either

a) joint, hence, their marginal cost is zero to society; or

b) real, but in kind, hence, subject to degrees of arbitrary shadow pricing.

Marginal costs for in-school enrollment are consistently in the range from the high $330's to the low $400's for the federal share.

Marginal costs for the summer enrollment show a wider relative range of variation. Marginal costs for the out-of-school component are not representative of marginal costs for the national population of out-of-school projects.

Average costs for the in-school and summer components are estimated by netting out the total costs of the out-of-school component. Due to the proration involved in their estimation, they are not directly comparable to their respective marginal cost estimates.

Finally, wage payments to the individual NYC participants must be counted both as a benefit and as a cost.

CHAPTER V

ANALYSIS OF ECONOMIC BENEFITS OF THE NEIGHBORHOOD YOUTH CORPS PROGRAM

A. Introduction

The objectives of the Neighborhood Youth Corps encompass both desired changes in high school performance and desired changes in labor market behavior. The major goal of the NYC, as discussed in Chapters I and II, is to reduce the dropout rate and increase the high school graduation rate. Increased educational attainment should also lead to improved labor market performance. However, it is also hypothesized that the work experience, counseling and other services rendered to the NYC participant will increase the NYC participant's employability once he leaves high school. There is the possibility also, that the graduation rate might be increased while labor market behavior showed no difference between the NYC and control groups. However, if educational attainment and labor market success are positively related, this case is not too likely to occur. It could also be the case that a person's labor market experience could improve as a result of his participation in the NYC while there was no effect or even a negative effect on educational attainment. Here, the investment nature of the NYC program would be in terms of improving a person's labor market discipline, job market information, and related aspects which improve earnings and employability. Yet the program may have no net effect on increasing the graduation rate since the nature of the NYC experience may have no bearing upon scholastic attainment. Namely, the hypothesis that family income and dropout behavior are inversely

related may not be true, or even if such a relation exists, the relation may be too weak to overcome other variables which also influence one's educational behavior. Chapter VI discusses this issue at some length.

This chapter will provide an analysis of the post-high school labor market experience of the study sample.

B. Methodology and Data

Chapter III presented the descriptive statistics which outline the structure of the study sample. However, the analysis in Chapter III accounts for the simultaneous influence on the dependent variables of only two or three independent variables at a time. Both the direction of the effect and the statistical significance of each of these independent variables with respect to the dependent variable can change in a model which controls for the influence of additional variables. This study uses multiple regression and correlation analysis to control for the joint influence of a set of independent variables which are considered to have a significant functional relationship with the dependent variables analyzed in this chapter. By using this type of analysis a more accurate estimate of the net effect of participation in the Neighborhood Youth Corps can be obtained.

As was shown in Chapter IV, weighted regressions are employed in this analysis in order to adjust for the fact that the probability of sample selection is not equal among the three regions of the study sample. Thus, the benefit models must also be weighted.

The sample size on which analysis of post-high school labor market performance is based consists of 676 observations. The sample size on

which the analysis of high school performance is based consists of 780 observations. Thus, the composition of the two samples may differ and they may not be directly comparable. The reason for the different sample sizes lies in the fact that more complete information existed on high school performance than on post-high school labor market behavior. For each case we are using the maximum number of observations available in order to cut down on non-response bias.

C. The Discriminant Function

In any study of this nature, there is usually a problem of self-selection bias which can create an unclear picture of the effects of the program in question. For any of several reasons, certain types of persons may be more prone to seek out information on programs like the NYC and subsequently join the program. These persons are likely to come from a different population of high school students than those persons who either don't care to know about such programs or who know of the programs but don't care to join. The result is that the selection of an ideal control group becomes more complicated. To the extent that the "self-selected" NYC participants may differ from the chosen control group, it becomes inaccurate to attribute causality between the NYC program and any measure of benefit. The bias is such that one could either over-estimate or under-estimate the true effects of the NYC program, depending on the way the NYC group and the control group differ. For instance, if the NYC participant represents a more enterprising person than the chosen control person, an over-estimation

of the program benefits may occur. On the other hand, maybe the NYC participant is a less enterprising person who can't find jobs and sources of earnings on his own. Then, one is likely to under-estimate NYC program benefits, given the particular control group.

One way to overcome this bias is by including in one's analysis a set of variables which will account for self-selection into the program. The statistical technique is known as estimating a discriminant function. Here, a separate regression model is used to estimate the probability that one would be a member of the NYC, based on certain crucial personal and social characteristics. The estimated probability of membership in the NYC (independent of whether one actually is a NYC member) is then employed as a separate independent or explanatory variable in those equations used to estimate net program benefits. Thus, the use of a discriminant function as an independent variable is an attempt to overcome those remaining differences between the NYC and control groups which occur due to the lack of a true experimental model for this study.

The problem in developing a discriminant function can be considered in the following way. The total study sample is composed of two groups:

(1) the NYC or experimental sample; and,

(2) the control sample.

Membership in the NYC sample is assigned the value of one and membership in the control sample is assigned the value of zero. This creates a dummy variable of the qualitative state of being in the NYC. This variable then becomes a dependent variable which is "explained" by the independent variables which are relevant in determining membership in the NYC.

For any person considered as a random observation, a given set of explanatory variables will allow us to find a function of these explanatory variables such that the higher values of this function are associated with the greater chance of being a member of the control group. In effect, a probability function for predicting membership in the NYC is estimated based on the specific characteristics of the NYC and control samples. This function is a measure of the likelihood that a randomly selected person could be a member of the NYC sample, independent of whether he is, in fact, a member.

Thus, while the actual probability of an NYC participant being in the NYC is 1.00, based on his personal and socio-demographic characteristics relative to all the other sample observations in the study, his estimated probability of being in the NYC may be, say, .86. Likewise, a member of the control group has an actual probability of .00 for NYC membership, but, based on his characteristics, his estimated probability may be, say, .72.

To repeat, these estimated values are then employed in the benefit models as an additional independent variable. Given that the basic variables which determine eligibility in the NYC go into the estimation of the discriminant function, and given that additional psychological and motivational variables also enter into its estimation, this discriminant function will help to further eliminate those differences between the NYC and the control group which are due to the fact that an experimental study design could not be employed.

Empirical Estimation of the Discriminant Function. The discriminant function was estimated in the following way:

(1) First, variables which directly determine eligibility into the NYC program were forced into a model estimating the function regardless of their level of statistical significance. Age and income per capita per family are the major variables which determine program eligibility. In addition, the following variables were also forced into the model: farm residence; the number of times a respondent has dropped out of high school; the proportion of subjects he found interesting in high school;[1] sex; and ethnic origin.

(2) Second, 15 additional psychological, educational and socio-demographic variables were allowed to enter into the model explaining the discriminant function if they had a level of statistical significance of .25 or higher. On this basis, four additional variables entered the explanatory equation. They were the following:

   a. "When you were in high school, did you ever hear of the Neighborhood Youth Corps program?" --

   b. average number of hours worked per week while the

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[1]This was a dummy variable based on the following question: "Of the subjects you took (are taking) in high school, how many would you say were (are) really interesting?" A value of one was assigned if the respondent said "All of them", "Most of them", or "About half of them" and zero if he said otherwise. See question 18 in Appendix IV.

respondent was in high school, exclusive of any NYC work;

c. father's education; and

d. "Is there any particular line of work that you'd really like to get into?" -- yes equaled one and a no answer equaled zero.

Other variables which did not enter the model based on the required level of statistical significance were such variables as: mother's education; total months the respondent was a dropout; whether the father was living with the family during the respondent's school years; the number of hours spent each week on homework; and four variables concerning attitudes toward work and education.

To repeat, the dependent variable was a program status variable wherein participation in the NYC equaled one and membership in the control group equaled zero.

Table 24[b] shows the results of the estimation. Differences in age, income per capita per family, farm residence, number of times a respondent has dropped out of school, proportion of interesting subjects in high school, sex and ethnic origin do not have a statistically significant effect on predicting membership in the NYC. However, these variables are conceptually relevant and must be included in the model.

A one month increase in work experience while in high school leads to a drop in the probability of being in the NYC by .5 of one percent. This is a reasonable effect if the NYC program is designed

TABLE 24[b]

STATISTICAL ESTIMATION OF THE DISCRIMINANT FUNCTION

Variable	Partial Regression Coefficient[a]	Standard Error of Coefficient	Partial Correlation Coefficient[b]
Intercept	-.2129	.2940	-.026
Age	.0118	.0140	.030
Income Per Capita Per Family	.0040	.0040	.028
Farm Residence	-.0982	.0472	-.061
Number of Times Respondent has Dropped Out	-.0095	.0290	-.012
Proportion of Interesting Subjects in High School	.0561	.0465	.043
High School Work Experience, in Months	-.0052*	.0021	-.086
Male	.0457	.0315	.051
Ethnic Origin White			
Negro	-.0585	.0370	-.056
American Indian	.0205	.0637	.011
Mexican American	.0108	.0536	.007
Puerto Rican	.2835	.2476	.041
..."Did you ever hear of the NYC program?"	.6410**	.0417	.478
Hours Worked per Week While in High School	-.0026*	.0011	-.084
Father's Education	-.0077*	.0038	-.073

TABLE 24[b] -- Continued

Variable	Partial Regression Coefficient[a]	Standard Error of Coefficient	Partial Correlation Coefficient[b]
"Is there any particular line of work that you'd really like to get into?"	.0686*	.0349	.069
Number of Observations	812		
S. E. E.	.4255		
$\bar{R}^2$	.2769		
F-Ratio	20.35		

Notes: (a) The partial regression coefficients in this table are interpreted as probabilities, or, if multiplied by 100, as percents. The scaled variables, such as age, are interpreted as the change in probability of being in the NYC given a one unit change in the independent variable. Thus, for age, a one year increase in age increases the probability of being in the NYC program by about .01, or one percent. The variable, however, is not statistically significant. The dummy variables such as sex or ethnic origin are interpreted as deviations from the categaory of the variable which is not expressed on the table. Thus, a male is .04 (or four percent) more likely to be in the NYC than is a female. However, the variable is not statistically significant. That is, males are no more likely than females to be in the NYC.

(b) The partial correlation coefficient represents the percent of variation in the dependent variable which is associated with variation in a given independent variable, net of the effect of all other variables in the model. Thus, for instance, in net terms, about 48% of the variation in the dependent variable, membership in the NYC, is explained by variation in the variable... "Did you ever hear of the NYC program?"

S. E. E. is the standard error of the estimate.

$\bar{R}^2$ is the coefficient of determination adjusted for degrees of freedom.

* = significant at the .05 level.

** = significant at the .01 level.

to provide work experience for those who otherwise would not be able to find work. As hours per week worked while in high school increase by one hour per week, the probability of being in the NYC decreases by about .3 of one percent. A one year increase in father's education leads to a drop in the probability of NYC participation of about .8 of one percent. Finally, those who responded that there was a particular line of work they would like to get into are about seven percent more likely to be a member of the NYC. All these variables have acceptable signs, that is, the expected direction of their effect on the dependent variable is conceptually reasonable.

The major variable explaining membership in the NYC is the dummy variable for the question "When you were in high school, did you ever hear of the Neighborhood Youth Corps program?" This variable is specifically aimed at accounting for and controlling for self-selection bias. Respondents who answered yes to this question were 64 percent more likely to be in the NYC than were those who answered no.

This variable needs some discussion since it represents the combined effects of three separate possibilities:

(1) a person heard about the NYC and joined it.

(2) a person heard about the NYC and did not join it.

(3) a person did not hear about the NYC and did not join it.

Thus, the variable incorporates both self-selection into the program and self-selection out of the program. For points (1) and (2) above, persons could enter or not enter the NYC for both positive and negative reasons. For instance, it may be that in some projects, more enterprising

persons entered the NYC while less enterprising persons did not. However, for other projects, it may be that the more enterprising persons pursued what they thought were better opportunities by not joining the NYC while less enterprising persons took the course of entering the NYC. We have no knowledge as to which of these effects is dominant either within points (1) and (2) on which is dominant, or net, between points (1) and (2). Awareness of these counteracting effects should be mentioned, however. Of the three alternatives above, self-selection into the program dominates since the sign of the variable is positive.

This brings us to the final point. What is the expected sign or direction of effect of this discriminant variable on the dependent variables of earnings and months unemployed or voluntarily withdrawn from the labor force? Three possibilities exist. First, given that a person is, in fact, an NYC participant, there will be a higher value to the predicted discriminant value for him if the discriminant function does discriminate between those who are and those who are not in the NYC. Therefore, the sign of the discriminant function with respect to earnings or graduation rate should be positive, given that the NYC program fulfills its desired objectives. That is, a higher value to the discriminant variable should result in a higher value of, say, post-high school earnings.

On the other hand, if a person is not in fact a member of the NYC, then there will be a lower predicted value to the discriminant variable for him. And, if the NYC program is effective, then the discriminant variable should be negatively related to months unemployed and months voluntarily out-of-the labor force and positively related to total post-high school before tax earnings. That is, as the value of the discriminant function falls, months unemployed rise and earnings fall.

A third possibility is preferred. This is a zero effect of the discriminant variable on the various dependent variables. This zero effect says that the probability of membership in the NYC is not associated with labor market or scholastic experience in any statistically significant way. Thus, the probability of being in the program, independent of actual membership in the NYC, does not explain differences in labor market or scholastic experiences between the two groups. Given a proper specification of the discriminant function, this implies that the NYC and the control groups come from the same or a similar population.

To anticipate somewhat, the following patterns of effect of the discriminant function were as follows: a negative relation with post-high school before tax earnings; zero effect for months unemployed after leaving high school and a mixed effect for the number of months voluntarily out-of-the-labor force after leaving high school. Of 27 total regressions displayed in the following analysis, the effect of the discriminant function was positive for seven, zero for 11 and negative for nine.

From an empirical standpoint, perhaps the negative sign is what one should most likely expect. The reasoning is as follows: a lower overall socio-economic status should imply a higher probability of being in the program but a lower socio-economic status also implies a less favorable earnings and employment experience.[2]

D. Plan of the Chapter

The plan of this chapter is as follows. The next section will investigate the effect of the NYC program in yielding an increase in social economic

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[2] We are indebted to Teh-wei Hu for clarifying discussion on these points.

benefit. As stated in Chapter II, these measures of benefit are total-post-high school before tax earnings, W_1, the number of months of unemployment after leaving high school, W_2, and the number of months voluntarily out-of-the labor force after leaving high school, W_3. Each gives a different dimension of the effect of the NYC program on one's labor market experience. Next will follow a discussion of private economic benefits. These are measured by total post-high school after tax earnings. Finally, there will follow an estimate of governmental benefits.

These measures of benefit will be presented for the national sample as a whole and by type of program participation--in-school participation only, summer participation only and for those persons who participated in both an in-school and a summer NYC component.

Two ways of looking at benefits will be used. First, total net benefits to the average NYC participant will be estimated. Second, net benefits as a function of length of stay in the NYC will be estimated.

E. Social Economic Benefits

Dependent Variables. The NYC participants were enrolled in the NYC sometime during the inclusive dates of July 1, 1965 through June 30, 1967. The control group is comprised of persons from the same high schools as their NYC counterparts. These control members had to become age 16 at some time during this two year period. Most of the interviews were conducted during the period of May-October, 1969. Thus, for the entire sample, a range of from more than four years to a month or two exists for the study respondents to have participated in the labor force. The weighted average length of time that the study respondents

were eligible to be in the civilian labor force was 18.56 months with a standard deviation of 21.04 months. Thus, there is considerable dispersion among the sample respondents with respect to the amount of time each was eligible to be in the civilian labor force. (This definition of eligibility excludes any time a respondent may have been in the military service.)

The regression analysis is performed for three indexes of economic performance designed to reflect socio-economic benefits. W_1 gives an explicit measure of the money benefits to the average participant in the NYC program. Following the national income measure of output, W_1 is considered a social benefit since an increase in earnings increases the national product. Economic production which occurs outside of the market place is not counted as an economic benefit in this analysis. The result of this restriction is to under-estimate the amount of benefit of the NYC program if the NYC program also yields an increase in home production. The variable W_2gives an explicit measure of the employment effect of the NYC program, independent of one's wage rate or level of earnings. Finally, W_3 provides a measure of the extent to which the NYC program increases participation in the labor force, independent of the question as to whether one is employed or unemployed once he enters the labor force.

The Model. The weighted regression model for estimating social benefits has the following form:

$$(1)\quad W_{1_i} X_{1_i}^{\frac{1}{2}} = a_1 X_{1_i}^{\frac{1}{2}} + a_2 X_{2_i} X_{1_i}^{\frac{1}{2}} + a_3 X_{3_i} X_{1_i}^{\frac{1}{2}} + a_4 X_{3_i} X_{1_i}^{\frac{1}{2}} + a_5 X_{4_i} X_{1_i}^{\frac{1}{2}}$$
$$+ a_6 X_{5_i} X_{1_i}^{\frac{1}{2}} + a_7 X_{6_i} X_{1_i}^{\frac{1}{2}} + a_8 X_{7_i} X_{1_i}^{\frac{1}{2}} + a_9 X_{8_i} X_{1_i}^{\frac{1}{2}} + a_{10} X_{9_i} X_{1_i}^{\frac{1}{2}}$$
$$+ a_{11} X_{10_i} X_{1_i}^{\frac{1}{2}} + a_{12} X_{11_i} X_{1_i}^{\frac{1}{2}} + a_{13} X_{12_i} X_{1_i}^{\frac{1}{2}} + a_{14} X_{13_i} X_{1_i}^{\frac{1}{2}}$$
$$+ a_{15} X_{14_i} X_{1_i}^{\frac{1}{2}} + a_{16} X_{15_i} X_{1_i}^{\frac{1}{2}} + a_{17} X_{16_i} X_{1_i}^{\frac{1}{2}} + a_{18} X_{17_i} X_{1_i}^{\frac{1}{2}} + U_{1_i}$$

where

W_1 = total post-high school before tax earnings, in dollars;

X_1 = the weight factor;

X_2 = respondent status -- 1 = NYC participant; 0 = otherwise;

X_3 = age at time of interview, in years;

X_4 = year and quarter when respondent ultimately left high school -- 01 = 1st quarter, 1960; 02 = 2nd quarter, 1960; etc.; 39 = 3rd quarter, 1969;

X_5 = employment experience during high school (other than NYC experience) or during an interim dropout period, in months;

X_6 = marital status -- 1 = single; 0 = otherwise;

X_7 = marital status -- 1 = widowed, separated or divorced; 0 = otherwise;

X_8 = father's education, in years of schooling completed;

X_9 = labor market area -- 1 = metropolitan economic area: population of central city is at least 50,000 but less than 500,000; 0 = otherwise;

X_{10} = labor market area -- 1 = rural functional economic area: independent regional areas of less than 50,000 population; 0 = otherwise;

X_{11} = labor market area -- 1 = rural population density less than two persons per square mile; 0 = otherwise;

X_{12} = sex -- 1 = male; 0 = female;

X_{13} = ethnic origin -- 1 = Negro; 0 = otherwise;

X_{14} = ethnic origin -- 1 = American Indian; 0 = otherwise;

X_{15} = ethnic origin -- 1 = Mexican American; 0 = otherwise;

X_{16} = ethnic origin -- 1 = Puerto Rican; 0 = otherwise;

X_{17} = discriminant function, in percentage;

U_1 = an error term;

$a_1, a_2, \ldots a_{18}$ = parameters to be estimated, i.e., partial regression coefficients; and,

i = observations 1, 2, 3, . . . n.

This model has 11 variables but 18 regressors since several variables are comprised of more than one regressor, such as marital status or ethnic origin. The same regression is estimated for W_2, total months unemployed since leaving high school and W_3, total months voluntarily out-of-the labor force since leaving high school.

A discussion of the independent variables of the model is in order before the estimated results are analyzed. Since major interest is focused

on social benefits in this study, the discussion of the a priori effects of the independent variables will generally be limited in their impact on W_1, W_2 and W_3. The findings of the study will be more reliable to the extent that the model is properly specified and the hypothesized effect of the variables in the model is consistent with past labor market analysis.[3]

Independent Variables. The respondent status variable, X_2, is in dummy or dichotomous form as indicated in its definition above. The average experience of the NYC group is contrasted with the average experience of the control group. Since respondent status is a dummy variable, the partial regression coefficient, a_2, is interpreted as a difference in the average experience between the two groups. Since the NYC status has a value of one and the control group status a value of zero, the sign of the partial regression coefficient should be positive with respect to W_1 but negative with respect to W_2 and W_3. Thus, we expect the NYC participant to earn more than his control group counterpart but be either unemployed less, out-of-labor force less, or both.

Age is recorded in years at time of interview. It has a quadratic functional form since it is expressed by a linear, X_3, and a squared, X_3^2, regressor. W_1, W_2, or W_3, as the case may be, must be partially differentiated with respect to X_3 and X_3^2 in order to interpret the age variable. At the average age of the respondents in this study, we would expect the

[3]See, for instance, Glen C. Cain, Married Women in the Labor Force, (Chicago: The University of Chicago Press), 1966. Various literature on labor market behavior is referred to in this study.

sign of this partial derivative to be positive with respect to W_1 and negative with respect to W_2 and W_3. That is, as age increases, earnings should increase but unemployment and non-participation in the labor force should decrease. However, for the female sample, we would also expect the sign to be negative for W_3. This is due to the fact that the women in this sample are entering the age range when their labor force participation rate will be increasing.[4] Later, their earnings and total months in the civilian labor force will decrease as age increases during the marriage and child bearing years.

The independent variable for year and quarter when a respondent ultimately left high school, X_4, represents a control for seasonal, cyclical and time trend effects on labor market performance. The possible sign of this variable is obscure. However, if one argues that earnings and employment stability increase with time spent in the labor force, then this variable should be inversely related to earnings and unemployment, given that a person is already a participant in the civilian labor force. The relation is inverse in the regression model since distant time periods take on low numerical values while recent time periods have high numerical values.

Employment experience while in high school, X_5, is likely to be positively related to earnings and negatively related to unemployment and labor force withdrawal. This is due to the fact that one of the best predictors of labor force participation is the length of previous labor

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[4] See the Manpower Report of the President, March, 1970, (Washington, D.C.: U.S. Government Printing Office, 1970), Table E-4, p. 298.

force participation.[5] This variable is conceptually relevant since it will help control for those respondent characteristics which influence one's labor market experience. Thus, for example, a NYC participant who already is accustomed to working while in high school is more likely to be working after high school regardless of whether he was ever in the NYC.

Marital status has three components--married, single, X_6, and separated, widowed or divorced, X_7. The coefficients for the single and separated, widowed or divorced regressors are interpreted as average deviations from the state of being married. For the total sample, the signs of the coefficients to these two regressors, X_6 and X_7, should be negative for W_1, but are likely to be positive for W_2 and W_3, months unemployed and months voluntarily out-of-the labor force. Single persons are also more likely to be unemployed than are married persons. In part, this is due to the intercorrelation of this condition with age. Young people tend to be single and young people also have higher unemployment and less labor force participation. Of course, the effect of marital status differs between men and women. Married men are more likely to be members of the labor force than are married women. Likewise, there are differences amont ethnic groups. Negro women are more likely to be in labor force than are white women.

Father's education, X_8, is included in the study as a proxy variable for socio-economic status. The sign for this variable should be positive with respect to W_1, and negative with respect to W_2, total months unemployed. As socio-economic status increases, total earnings ought to

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[5]See John Korbel, "Female Labor Force Mobility and Its Simulation," in Mark Perlman, Editor, Human Resources in the Urban Economy, (Baltimore: The Johns Hopkins Press, 1963), pp. 55-74.

increase. Without an explicit control for post-high school education and training, this variable is likely to be positive in sign for months voluntarily withdrawn from the civilian labor force, since persons having a higher socio-economic status are more likely to pursue higher education and thus may drop out of the labor force as a consequence.

A labor market area variable having three regressors is added to the equation to control for difference among labor market areas in employment level, wage level, price level, and industrial structure.[6] For variable W_1 the signs of the three regressors, X_9, X_{10}, and X_{11}, included in the equation are likely to be negative with respect to the type of labor market area against which they are compared--metropolitan economic area: population of central city is 500,000 or greater. Thus, earnings will be greatest in the largest metropolitan economic area. The reverse is likely to be the case for W_2, total months unemployed and W_3, total months voluntarily out-of-the labor force.

The sex variable, X_{12}, is expected to be positive with respect to W_1 and negative with respect to W_2 and W_3. Males generally out-perform females in the labor market given the way sex-differentiated roles are defined both in the labor market and in the broader society.

There are four regressors to the ethnic origin variable, X_{13}, X_{14}, X_{15}, and X_{16}. These regressors are compared against the status of being white. Thus, the partial regression coefficients of the other four regressors are interpreted as differences from the status of being white. No a priori

[6]These labor market classifications are based upon "Functional Economic Areas in the United States," prepared by Brian J.L. Berry, University of Chicago, April 1967, for the Social Science Research Council, Committee on Areas for Social and Economic Statistics, in cooperation with the Bureau of the Census, U.S. Department of Commerce.

conclusions are made as to the expected signs of these regressors.

The estimated value of the discriminant function, X_{17}, has already been discussed above.

Empirical Results for the Total Sample. Table 25 represents the regression analysis for a total of 676 observations. The NYC program has a significant effect on increasing total post-high school before tax earnings. In the average period of 18.56 months he was eligible to be in the civilian labor force, the average NYC participant has a total gain in earnings of $831 vis-a-vis his control group counterpart. This is a difference in favor of the NYC participant of about $45 per month over the period since the respondents left high school. This difference is statistically significant at the .05 level (more precisely, at the .0168 level). Thus, the chances are only about one in twenty that the observed difference between the two groups is likely to actually be zero.[7] There is no statistically significant difference between the NYC and the control groups in terms of total months unemployed. Nor is there any net difference between the two groups in terms of average hourly wage rate earned. Thus, the earnings difference is due mainly to the fact that the NYC group has 2.30 months less voluntary labor force withdrawal than does the control group. Thus, the NYC program does not appear to have increased the productivity of the NYC participants, given that productivity is measured by the wage rate. Nor has it appeared to increase their employability. What it has done is encouraged

[7] Throughout this study a two-tailed t-test is used, even though a one-tailed test is conceptually permissable in some cases. As a result, a higher t-value is needed to achieve a given level of statistical significance. This conservative approach is employed throughout the study.

TABLE 25

ANALYSIS OF LABOR MARKET PERFORMANCE, TOTAL SAMPLE

Variable	Total Post-High School Before-Tax Earnings in Dollars W_1	Months Unemployed W_2	Months Voluntarily Out-of-Labor Force W_3
Weight Factor	-25,937[a]	-66.86	401.29**
	(32,586)	(57.45)	(92.38)
Status Control[b]			
NYC	831*	.46	-2.30*
	(346)	(.61)	(.98)
Age	3,260	8.12	-33.90**
	(3,178)	(5.60)	(9.01)
Age Squared	-.73	-.22	.85**
	(.78)	(.14)	(.22)
Year and Quarter Respondent Left School	-122**	-.33**	-1.71**
	(40)	(.07)	(.11)
Total High School Work Experience, in Months	-10	-.06*	-.10*
	(17)	(.03)	(.05)
Marital Status Married[b]			
Single	-78	1.16*	-5.20**
	(309)	(.54)	(.88)
Widowed, Separated, Divorced	-664	7.41**	-12.97**
	(845)	(1.49)	(2.39)
Father's Education	4	.05	.02
	(42)	(.07)	(.12)
Labor Market Area Metropolitan Economic Area: 500,000 or more[b]			
Metropolitan Economic Area: More than 50,000 -- less than 500,000	-2,245**	2.14**	1.94
	(465)	(.82)	(1.32)

TABLE 25 -- Continued

Variable	Total Post-High School Before-Tax Earnings in Dollars W_1	Months Unemployed W_2	Months Voluntarily Out-of-Labor Force W_3
Rural Functional Economic Area	-1,775** (635)	.26 (1.12)	.29 (1.80)
Rural: Less than 2 persons/sq. mile	-800 (765)	-.15 (1.35)	5.01* (2.18)
Male	1,635** (297)	-.53 (.52)	-2.94** (.84)
Ethnic Origin: White[b]			
Negro	-442 (518)	.65 (.91)	1.41 (1.47)
American Indian	-2,254** (598)	1.06 (1.06)	1.70 (1.70)
Mexican American	-814 (504)	.69 (.89)	.79 (1.43)
Puerto Rican	5,182** (1,981)	4.38 (3.49)	-13.34* (5.62)
Discriminant Function	-32** (7)	-.01 (.01)	.05** (.02)
Number of Observations	676	676	676
S. E. E.	3,469	6.12	9.83
$\bar{R}^2$	.5477	.2461	.7102
F-Ratio	44.27	11.93	89.60

TABLE 25 -- Continued

Notes: (a) This is the partial regression coefficient. The number in parentheses is the standard error of the regression coefficient.

(b) This regressor enters the intercept term. The remaining regressions of this variable set are interpreted as deviations from this regressor. Thus, for instance, the NYC participant earned $831 more than his control group counterpart. In addition to these dummy or categorical variables, the regression model contains scaled variables. Thus, for instance, for a one month increase in total high school work experience, the number of months unemployed after high school decreases by .06 of a month. Or, a one percent increase in the probability of being an NYC participant results in a $32 decrease in total post-high school before tax earnings.

S. E. E. is the standard error of the estimate.

$\bar{R}^2$ is the coefficient of determination corrected for degrees of freedom.

* = significant at the .05 level.

** = significant at the .01 level.

the NYC participant to participate in the labor force to a greater extent, the end result of which has meant total higher earnings. Thus, the NYC participants appear to have been encouraged to substitute market work for home production, leisure or other non-labor force activities for employment in the labor force. Given that this substitution of leisure for work is voluntary and consistent with the values and preferences of the NYC group, then this substitution represents an increase in total social well-being.

Total earnings and months unemployed do not vary with respect to age. However, at the weighted average age of the sample, a one year increase in age implies a decrease of about seven months in voluntary labor force withdrawal. Since the study sample is relatively sound and the age dispersion is narrow, this is not an unreasonable result. Most of these persons are just entering the labor force on a permanent basis.

As postulated, the year and quarter a person left school is negatively related to all three measures of economic performance. Total earnings decrease by $122 as the number of calendar quarters available for labor force activity decreases by an additional calendar quarter. Of course, as with all the results in this study, this effect is most reliable at or near the average value of the variable in question.

Total months of high school work experience has no net effect on earnings, that is, the partial regression coefficient of this variable is not statistically significant from zero. This can be due to the fact that this variable is highly statistically significant in the discriminant function. The high level of significance of the discriminant function then reduces the effect of high school work experience when it enters the

model separately. However, it is negatively related to unemployment and voluntary labor force withdrawal. These two effects are consistent with what one would expect.

Single persons and those widowed, separated or divorced earn no less than married persons in this sample. However, they are unemployed more but have fewer months of voluntary labor force withdrawal. Widowed, separated or divorced persons have 12.97 months less labor force withdrawal than do married persons. This is a large magnitude. Even though the result is statistically significant, it may not be too trustworthy since there are very few persons in this marital status (a weighted number of 13.2) in the sample and they could represent only extreme values of non-labor force withdrawal. (Statistically, extreme values tend to increase the statistical signficance of the partial regression coefficient since they reduce the size of its standard error).[8] Again, this can be

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[8]Two factors affect the size of the standard error of the regression coefficient. These are the number of observations and the dispersion of values of these observations. If either the number of observations (n) increases (decreases) or the dispersion of the values $(X_i - \bar{X})$ of these observations increases (decreases) then the standard error of the partial regression coefficient (S_b) will decrease (increase). The relevant formula for the two variable case is as follows:

$$S_b = \frac{\Sigma e_i^2/n-2}{\Sigma (X_i-\bar{X})^2}$$

where

S_b is the standard error of the regression coefficient;
e_i is the computed residual of the ith observation;
n is the total number of observations;
X_i is the value of the regressor of the ith observation;
$\bar{X}$ is the mean value of the regressor.

due to the fact that it is highly statistically significant in the discriminant function. The high level of significance of the discriminant function then reduces the effect of father's education when father's education enters the model separately.

Socio-economic status as measured by the index of father's education has no effect on labor market performance for this sample. Again, this may be due to the fact that it is a statistically significant variable in the discriminant function.

The variable for labor market area performs in a mixed fashion. Persons living in smaller labor market areas such as X_9 and X_{10} earn less than those persons who live in a labor market area which has a central city of 500,000 population or more. Wage rates should be higher in the largest city and a greater number of more varied job opportunities should be available. However, an inconsistent result is the finding that there is no difference in earnings between those persons who live in the largest labor market area and those who live in rural areas with a population density of less than two persons per square mile. This again, may be due to small number of extreme observations for the variable X_{11}.

As expected, males earn more than females ($1,635) and have less voluntary labor force withdrawal (2.94 months) during the 18 months or so that the NYC sample has been eligible to be in the civilian labor force. However, there is no difference between the two sexes with respect to unemployment.

The variable on ethnic origin is of considerable interest. There is no statistically significant difference between Mexican Americans or Negroes and their white counterparts with respect to total earnings, total months unemployed or total months withdrawn from the labor force.

American Indians earn $2,254 less than whites in the year and a half average period the NYC sample has been eligible to participate in the labor force. Further, they are unemployed 4.60 months more than are whites.

The result for Puerto Ricans is unreliable even though statistically significant since Puerto Ricans represent a weighted number of only 2.97 persons in the sample, about .44 of one percent of the sample.[9]

Finally, with respect to the discriminant function, a one percent increase in the probability of being a NYC participant reduces total post-high school before tax earnings by $32 over the 18.57 month period the study respondent was eligible to be in the civilian labor force.

Empirical Results for Male and Female Samples. Since the labor force behavior of males and females differs due to differences in their socially and biologically defined roles, it is important to see what the effects of the NYC program are on males and females taken separately. Also, different policy conclusions may be implied for the two sexes. One may be less concerned if females fail to benefit from the NYC experience than males, for instance. Table 26 displays the estimated results for males while Table 27 displays the results for females. The regression models used to estimate the results for the two samples are the same as equation (1) in this chapter except that the variable for sex, X_{12}, is omitted.

Male NYC participants earn about $1,171 more than their control counterparts in the 14.04 months they are eligible to participate in the labor force since leaving high school or, about $83 more per month. However,

[9] See note 8.

TABLE 26

ANALYSIS OF LABOR MARKET PERFORMANCE, MALE SAMPLE

Variable	Total Post-High School Before-Tax Earnings in Dollars W_1	Months Unemployed W_2	Months Voluntarily Out-of-Labor Force W_3
Weight Factor	122,210[a+]	-40.39	-193.38
	(65,952)	(46.07)	(126.08)
Status			
Control[b]			
NYC	1,171[+]	.79[+]	-1.02
	(633)	(.44)	(1.21)
Age	-10,432	4.01	22.45[+]
	(6,472)	(4.52)	(12.37)
Age Squared	261[+]	-.10	-.55[+]
	(159)	(.11)	(.30)
Year and Quarter Respondent	-273[**]	.01	-.88[**]
Left School	(76)	(.05)	(.14)
Total High School Work	-40	-.04[*]	-.19[**]
Experience, in Months	(27)	(.02)	(.05)
Marital Status			
Married[b]			
Single	-2,240[**]	.31	1.34
	(584)	(.41)	(1.12)
Widowed, Separated, Divorced	-1,051	-.53	-.16
	(3,339)	(2.33)	(6.38)
Father's Education	9	-.01	.17
	(72)	(.05)	(.14)
Labor Market Area			
Metropolitan Economic Area: 500,000 or more[b]			
Metropolitan Economic Area: More than 50,000 -- less than 500,000	-2,740[**]	1.67[**]	-2.63
	(844)	(.59)	(1.61)

TABLE 26 -- Continued

Variable	Total Post-High School Before-Tax Earnings in Dollars W_1	Months Unemployed W_2	Months Voluntarily Out-of-Labor Force W_3
Rural Functional Economic Area	-3,170**	1.26	-.32
	(1,162)	(.81)	(2.22)
Rural: Less than 2 persons/sq. mile	-1,311	3.42**	-4.55+
	(1,360)	(.95)	(2.60)
Ethnic Origin[b]			
White			
Negro	-1,234	1.96**	2.59
	(947)	(.66)	(1.81)
American Indian	-5,690**	.64	15.60**
	(1,448)	(1.01)	(2.77)
Mexican American	-1,597+	-.38	-.19
	(896)	(.62)	(1.71)
Puerto Rican	4,805	22.74**	-14.04
	(4,510)	(3.15)	(8.62)
Discriminant Function	-36**	.01	-.02
	(11)	(.01)	(.02)
Number of Observations	311	311	311
S. E. E.	3,986	2.78	7.62
$\bar{R}^2$	.5721	.3196	.5951
F-Ratio	23.12	8.12	25.41

Notes: (a) This is the partial regression coefficient. The number in parentheses is the standard error of the regression coefficient.

(b) This regressor enters the intercept term. See Table 25 for the interpretation of dummy variable and scaled variables.

TABLE 26 -- Continued

Notes -- Continued

S. E. E. is the standard error of the estimate.

$\bar{R}^2$ is the coefficient of determination adjusted for degrees of freedom.

+ = significant at the .10 level.

* = significant at the .05 level.

** = significant at the .01 level.

TABLE 27

ANALYSIS OF LABOR MARKET PERFORMANCE, FEMALE SAMPLE

Variable	Total Post-High School Before-Tax Earnings in Dollars W_1	Months Unemployed W_2	Months Voluntarily Out-of-Labor Force W_3
Weight Factor	-93,938[a*]	-134.00	729.42[**]
	(31,456)	(89.28)	(116.93)
Status			
Control[b]			
NYC	466	3.11[**]	-5.12[**]
	(368)	(1.04)	(1.37)
Age	9,437[**]	15.86[+]	-65.70[**]
	(3,059)	(8.68)	(11.37)
Age Squared	-220[**]	-.42[*]	1.63[**]
	(74)	(.21)	(.28)
Year and Quarter Respondent Left School	-80[+]	-.57[**]	-1.99[**]
	(41)	(.12)	(.15)
Total High School Work Experience, in Months	42[+]	-.12[+]	.02
	(22)	(.06)	(.08)
Marital Status			
Married[b]			
Single	1,146[**]	2.49[**]	-7.59[**]
	(321)	(.91)	(1.19)
Widowed, Separated, Divorced	-716	8.83[**]	-15.29[**]
	(697)	(1.98)	(2.59)
Father's Education	51	.14	-.29
	(48)	(.14)	(.18)
Labor Market Area			
Metropolitan Economic Area: 500,000 or more[b]			
Metropolitan Economic Area: More than 50,000 -- less than 500,000	-1,162	1.70	4.59[**]
	(478)	(1.36)	(1.78)

TABLE 27 -- Continued

Variable	Total Post-High School Before-Tax Earnings in Dollars W_1	Months Unemployed W_2	Months Voluntarily Out-of-Labor Force W_3
Rural Functional Economic Area	-710	-1.33	3.05
	(478)	(1.36)	(1.78)
Rural: Less than 2 persons/sq. mile	253	-4.50*	11.43**
	(793)	(2.25)	(2.95)
Ethnic Origin			
White[b]			
Negro	460	.09	.42
	(531)	(1.51)	(1.97)
American Indian	-928+	5.73**	-6.90**
	(546)	(1.55)	(2.03)
Mexican American	-187	2.06	-.98
	(578)	(1.64)	(2.15)
Puerto Rican	4,549*	-1.46	-10.01
	(1,806)	(5.13)	(6.72)
Discriminant Function	-26**	-.04+	.14**
	(7)	(.02)	(.03)
Number of Observations	365	365	365
S. E. E.	2,665	7.65	9.91
$\bar{R}^2$	.6249	.3202	.8075
F-Ratio	34.10	9.64	85.87

Notes: (a) This is the partial regression coefficient. The number in parentheses is the standard error of the regression coefficient.

(b) This regressor enters the intercept term. See Table 25 for the interpretation of dummy variables and scaled variables.

TABLE 27 -- Continued

Notes -- Continued

S. E. E. is the standard error of the estimate.

$\bar{R}^2$ is the coefficent of determination adjusted for degrees of freedom.

+ = significant at the .10 level.

* = significant at the .05 level.

** = significant at the .01 level.

this difference is significant at only the .10 level. That is, the chances are one out of ten that the observed difference between the two samples is actually zero. There is a slight tendancy for the NYC males to be unemployed more than their control counterparts and there is no statistically significant difference between the two groups in terms of voluntary labor force withdrawal. However, a separate regression on hours worked per week shows that male NYC respondents worked about 7.1 hours more per week than did their control counterparts (significant at the .01 level), thus helping to account for the differences in total earnings between the two groups.

In contrast, the female NYC participant earns no more than her control counterpart in the 22.32 months the female NYC group is eligible to be in the labor force after leaving high school. This result is apparently due to two counteracting effects. First, the female NYC participant is unemployed 3.11 more months than her control counterpart. However, she has 5.12 fewer months of non-labor force participation. In addition, she works about 6.1 hours less per week on the average than does her control counterpart.

The effect of age on the labor market performance of males is weak in a statistical sense. It has no effect on the number of months employed, for instance, and is statistically significant at the .10 level for age and age squared with respect to labor force withdrawal. In contrast, the effect of age on labor market performance of females is highly statistically significant. At the mean age for the female sample, a one year increase

in age implies an earnings increase of $2,415 over its 22.01 month eligible to be in the civilian labor force.[10] This is significant at the .01 level. This difference between the sexes with respect to age is a reasonable result.

As the period of time eligible to be in the labor force decreases by one calendar quarter, males earn $273 less. Males also have about one month less voluntary withdrawal from the labor force as the period of time eligible to be in the civilian labor force increases by one calendar quarter, but age has no statistically significant effect on the number of months unemployed.

In contrast, females experience an $80 decrease in total earnings as their labor force eligibility decreases by one calendar quarter. For each quarter decrease, they experience .57 of a month less unemployment and about two months less withdrawal from the labor force.

There is no effect on total earnings for males due to previous high school work experience; however, for a one month increase in work experience during high school, months unemployed decrease by .04 of one month and months voluntarily out-of-the labor force decrease by .19 of one month.

In contrast, females earn about $42 more given a one month increase in work experience while in high school. This effect, however, is only significant at the .10 level. Females tend to be unemployed .12 of a month less for each additional month they worked while in high school, but high school work experience has no statistically significant effect on voluntary labor force withdrawal.

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[10] Note again that the dependent variable must be partially differentiated with respect to the two regressors for age, X_3 and X_3^2.

The marital status variable performs in a generally consistent fashion between the male and female samples. Single men earn $2,240 less than married men during their period of eligibility for the civilian labor force. In contrast, single women earn $1,146 more than married women during the period of time they are eligible to be in the civilian labor force. For males and females there is no difference in earnings between those who are married and those who are widowed, separated or divorced.

Also consistent are the patterns of non-labor force participation. There is no statistically significant difference in months of voluntary labor force withdrawal between married men and either single or widowed, separated or divorced men. In contrast, as one would expect, single women and widowed, separated or divorced women both have fewer months of voluntary labor force withdrawal than their married counterparts.

Father's education has no statistically significant effect on the dependent variables for either the male or female samples.

Of final importance is the labor market performance between the two groups with respect to ethnic origin. There is no difference in total earnings between white males and Negro or Puerto Rican males. However, the weighted number of Puerto Rican males in the sample is only .9 (or .3 percent of the sample). Thus, this finding is not meaningful for Puerto Ricans. American Indians earn $5,690 less than their white male counterparts but, again, we are dealing with small sample numbers. Mexican Americans earn $1,597 less than their white male counterparts, but this difference is significant at only the .10 level. Negro men

have 1.96 months more of unemployment than do white men. American Indian males have more months of voluntary labor force withdrawal but again, very small numbers are involved.

There is no difference in earnings, months unemployed or months not-in-the labor force between white and Negro or Mexican American females. However, American Indian females earn $928 less, are unemployed 5.73 more months and have 6.90 months more labor force withdrawal than their white counterparts. Again, the number of Puerto Ricans is too small to allow any meaningful conclusions to be made--only about three weighted observations.

Empirical Results for White and Negro Samples. Just as the two sex groups perform differently in the labor market, so, too, do the different ethnic groups. Due to racial discrimination and other social and economic institutions one can expect a difference in labor market performance among ethnic groups and a different effect of the NYC program on labor market performance among ethnic groups. The results bear this out for whites and Negroes. Unfortunately, the small numbers of Mexican Americans, American Indians and Puerto Ricans in the sample did not allow reliable estimates of the separate effect of the NYC program on labor market performance of these groups. The regression models for estimating the following results are the same as in equation (1) of this chapter except for the deletion of the regressor for ethnic origin, X_{13}, X_{14}, X_{15} and X_{16}. Tables 28 and 29 display the estimated results.

Negro NYC participants are eligible to be in the civilian labor force for 12.19 months after leaving high school. During this time Negro NYC participants earn a total of $1,579 more than their control group

TABLE 28

ANALYSIS OF LABOR MARKET PERFORMANCE, WHITE SAMPLE

Variable	Total Post-High School Before-Tax Earnings in Dollars W_1	Months Unemployed W_2	Months Voluntarily Out-of-Labor Force W_3
Weight Factor	-1,693[a]	26.23	94.58
	(57,481)	(70.28)	(144.59)
Status			
Control[b]			
NYC	1,013*	-.10	-3.06*
	(477)	(.58)	(1.20)
Age	914	-2.25	-3.19
	(5,670)	(6.93)	(14.26)
Age Squared	-16	-.06	.08
	(140)	(.17)	(.35)
Year and Quarter Respondent	-142*	-.13+	-1.74**
Left School	(57)	(.07)	(.14)
Total High School Work	-18	-.07*	-.16**
Experience, in Months	(23)	(-.03)	(.06)
Marital Status			
Married[b]			
Single	17	1.66**	-5.04**
	(441)	(.54)	(1.11)
Widowed, Separated, Divorced	2,537	11.98**	-1.01
	(1,543)	(1.89)	(3.88)
Father's Education	16	.00	.14
	(70)	(.08)	(.18)
Labor Market Area			
Metropolitan Economic Area: 500,000 or more[b]			
Metropolitan Economic Area: More than 50,000 -- less than 500,000	-2,637**	1.60+	1.36
	(695)	(.85)	(1.75)

TABLE 28 -- Continued

Variable	Total Post-High School Before-Tax Earnings in Dollars W_1	Months Unemployed W_2	Months Voluntarily Out-of-Labor Force W_3
Rural Functional Economic Area	-2,215* (908)	.07 (1.11)	-.27 (2.28)
Rural: Less than 2 persons/sq. mile	-869 (1,085)	.08 (1.33)	3.21 (2.73)
Male	2,069** (423)	-.57 (.52)	-3.71** (1.06)
Discriminant Function	-31** (10)	.00 (.01)	.06* (.02)
Number of Observations	398	398	398
S. E. E.	4,173	5.10	10.50
$\bar{R}^2$	.5238	.2325	.6842
F-Ratio	30.17	8.31	59.42

Notes: (a) This is the partial regression coefficient. The number in parentheses is the standard error of the regression coefficient.

(b) This regressor enters the intercept term. See Table 25 for the interpretation of dummy variables and scaled variables.

S. E. E. is the standard error of the estimate.

$\bar{R}^2$ is the coefficient of determination adjusted for degrees of freedom.

+ = significant at the .10 level.

* = significant at the .05 level.

** = significant at the .01 level.

TABLE 29

ANALYSIS OF LABOR MARKET PERFORMANCE, NEGRO SAMPLE

Variable	Total Post-High School Before-Tax Earnings in Dollars W_1	Months Unemployed W_2	Months Voluntarily Out-of-Labor Force W_3
Weight Factor	89,052[a]	116.77	-292.36[+]
	(55,072)	(73.08)	(152.70)
Status			
Control[b]			
NYC	1,579[**]	-3.09[**]	-2.23
	(542)	(.72)	(1.50)
Age	-8,066	-11.23	36.59[*]
	(5,415)	(7.19)	(15.02)
Age Squared	215	.28	-.93[*]
	(133)	(.18)	(.37)
Year and Quarter Respondent	-335[**]	-.05	-1.84[**]
Left School	(71)	(.09)	(.20)
Total High School Work	79[+]	-.08	-.14
Experience, in Months	(41)	(.05)	(.11)
Marital Status			
Married[b]			
Single	-1,471[**]	.04	1.48
	(36)	(.71)	(1.49)
Widowed, Separated, Divorced	2,958	-3.51	-.19
	(1,835)	(2.44)	(5.09)
Father's Education	64	-.01	-.07
	(49)	(.06)	(.14)
Labor Market Area			
Metropolitan Economic Area: 500,000 or more[b]			
Metropolitan Economic Area: More than 50,000 -- less than 500,000	-698	2.37[**]	1.99
	(504)	(.67)	(1.40)

TABLE 29 -- Continued

Variable	Total Post-High School Before-Tax Earnings in Dollars W_1	Months Unemployed W_2	Months Voluntarily Out-of-Labor Force W_3
Rural Functional Economic Area	-3,086 (3,198)	6.70 (4.24)	-7.93 (8.87)
Rural: Less than 2 persons/sq. mile[c]	----	----	----
Male	1,020+ (537)	.38 (.71)	-.05 (1.49)
Discriminant Function	-13 (11)	.03* (.01)	.02 (.03)
Number of Observations	166	166	166
S. E. E.	1,838	2.44	5.10
$\bar{R}^2$	.7436	.3623	.7730
F-Ratio	31.48	6.17	36.97

Notes: (a) This is the partial regression coefficient. The number in parentheses is the standard error of the regression coefficient.

(b) This regressor enters the intercept term. See Table 25 for the interpretation of dummy variables and scaled variables.

(c) No observations for this regressor.

S. E. E. is the standard error of the estimate.

$\bar{R}^2$ is the coefficient of determination adjusted for degrees of freedom.

+ = significant at the .10 level.

* = significant at the .05 level.

** = significant at the .01 level.

counterparts and they are unemployed 3.09 months less. Thus, they earn about $130 more per month over this time period than do their control counterparts. In contrast, whites are eligible to be in the civilian labor force for 20.01 months after leaving school. The white NYC participant earns $1,013 more than his white control counterpart during this period, or, about $51 more per month during this time. This effect is due mainly to the fact that the white NYC participant has 3.19 months less labor force withdrawal. Thus, average benefits are about 2.38 times greater on a monthly basis for Negro NYC participants in contrast to white NYC participants.

The other independent variable of interest here is the sex variable. While white males earn $2,069 more than white females and experience 3.71 fewer months of labor force withdrawal, Negro males earn only $1,020 more than Negro females. This difference is significant only at the .10 level. Also, there is no difference between Negro males and females in terms of months unemployed or months withdrawn from the labor force. Finally, white males earn $.72 cents more per hour than white females while there is no difference in average hourly wage rate between Negro males and females. Thus, the combined forces of racial discrimination and white and Negro life patterns are at work here to create sex-specific differences within the two ethnic groups.

Emprirical Results for White Male and Negro Male Samples. The previous section indicated that there are important ethnic related differences both in terms of labor market perfomrance and in terms of the effect of the NYC program. To further explore this issue, the white

and Negro ethnic groups have been broken down into their sex components. The estimated results are based on the same regression model as in equation (1) except that regressors X_{12} through X_{16} are omitted from the equations. The estimated results are shown in Tables 30 and 31.

White male NYC participants are eligible to be in the civilian labor force for 14.98 months after leaving high school. Negro male NYC participants are eligible for 9.75 months. Table 30 shows that for white males the NYC program had no effect in raising the total earnings during this 15 month time period. Nor did it have any effect on reducing months unemployed or months withdrawn from the civilian labor force. In contrast Negro males in the NYC earned $1,182 more ($121 more per month) than their control counterparts over the 9.75 month period they were eligible to be in the labor force. However, this difference is significant at only the .10 level. Also, Negro males in the NYC were unemployed 6.89 months less than their control counterparts. Thus, Negro males, a potentially more disadvantaged groups than white males, benefit more from the NYC program.

Empirical Results for White Female and Negro Female Samples. The estimation of labor market performance for this group is set up in the same fashion as for white and Negro males above. The estimated results are shown in Tables 32 and 33.

White female NYC participants have an average of 25.27 months eligible to be in the civilian labor force after leaving high school. Negro female NYC participants, in contrast, have 13.47 months eligible to be in the civilian labor force.

TABLE 30

ANALYSIS OF LABOR MARKET PERFORMANCE, WHITE MALE SAMPLE

Variable	Total Post-High School Before-Tax Earnings in Dollars W_1	Months Unemployed W_2	Months Voluntarily Out-of-Labor Force W_3
Weight Factor	104,402[a]	-11.83	-145.29
	(85,324)	(53.03)	(152.47)
Status Control[b]			
NYC	1,078	-.44	-1.12
	(805)	(.50)	(1.44)
Age	-8,678	1.30	17.07
	(8,384)	(5.21)	(14.98)
Age Squared	221	-.03	-.41
	(206)	(.13)	(.37)
Year and Quarter Respondent Left School	-303**	.00	-.78**
	(97)	(.06)	(.17)
Total High School Work Experience, in Months	-58+	-.04*	-.18**
	(34)	(.02)	(.06)
Marital Status Married[b]			
Single	-1,846*	.55	1.31
	(784)	(.49)	(1.40)
Widowed, Separated, Divorced	-3,258	-.38	3.45
	(4,255)	(2.64)	(7.60)
Father's Education	-10	.04	.23
	(124)	(.08)	(.22)
Labor Market Area Metropolitan Economic Area: 500,000 or more[b]			
Metropolitan Economic Area: More than 50,000 -- less than 500,000	-3,260**	1.05	-3.58+
	(1,181)	(.73)	(2.11)

TABLE 30 -- Continued

Variable	Total Post-High School Before-Tax Earnings in Dollars W_1	Months Unemployed W_2	Months Voluntarily Out-of-Labor Force W_3
Rural Functional Economic Area	-4,287** (1,604)	.53 (1.00)	.39 (2.86)
Rural: Less than 2 persons/sq. mile	-1,864 (1,787)	2.00+ (1.11)	-3.99 (3.19)
Discriminant Function	-30* (15)	.00 (.01)	-.01 (.03)
Number of Observations	202	202	202
S. E. E.	4,755	2.96	8.50
$\bar{R}^2$	.5571	.1737	.4957
F-Ratio	18.29	3.06	14.29

Notes: (a) This is the partial regression coefficient. The number in parentheses is the standard error of the regression coefficient.

(b) This regressor enters the intercept term. See Table 25 for the interpretation of dummy variables and scaled variables.

S. E. E. is the standard error of the estimate.

$\bar{R}^2$ is the coefficient of determination adjusted for degrees of freedom.

+ = significant at the .10 level.

* = significant at the .05 level.

** = significant at the .01 level.

TABLE 31

ANALYSIS OF LABOR MARKET PERFORMANCE, NEGRO MALE SAMPLE

Variable	Total Post-High School Before-Tax Earnings in Dollars W_1	Months Unemployed W_2	Months Voluntarily Out-of-Labor Force W_3
Weight Factor	294,030[a]**	817.12**	-1,034.50*
	(120,200)	(258.45)	(451.36)
Status			
Control[b]			
NYC	1,182+	-6.89**	-.18
	(686)	(1.47)	(2.58)
Age	-27,067*	85.92**	114.08*
	(12,200)	(26.23)	(45.81)
Age Squared	669*	-2.23**	-2.90*
	(310)	(.67)	(1.16)
Year and Quarter Respondent Left School	-398**	-.42	-2.61**
	(131)	(.28)	(.49)
Total High School Work Experience, in Months	60	.07	-.04
	(36)	(.08)	(.14)
Marital Status			
Married[b]			
Single	-6,563**	3.00	6.88+
	(933)	(2.00)	(3.50)
Widowed, Separated, Divorced	12,629**	16.22*	-12.63
	(3,366)	(7.24)	(12.64)
Father's Education	47	.04	.09
	(39)	(.08)	(.15)
Labor Market Area			
Metropolitan Economic Area: 500,000 or more[b]			
Metropolitan Economic Area: More than 50,000 -- less than 500,000	591	4.50**	-1.86
	(545)	(1.17)	(2.05)

TABLE 31 -- Continued

Variable	Total Post-High School Before-Tax Earnings in Dollars W_1	Months Unemployed W_2	Months Voluntarily Out-of-Labor Force W_3
Rural Functional Economic Area	-2,516 (2,293)	9.62+ (4.93)	-12.62 (8.61)
Rural: Less than 2 persons/sq. mile[c]	----	----	----
Discriminant Function	7 (12)	.11** (.03)	-.01 (.05)
Number of Observations	57	57	57
S. E. E.	1,093	2.35	4.10
$\bar{R}^2$	.9234	.6546	.8784
F-Ratio	40.79	6.41	24.45

Notes: (a) This is the partial regression coefficient. The number in parentheses is the standard error of the regression coefficient.

(b) This regressor enters the intercept term. See Table 25 for the interpretation of dummy variables and scaled variables.

(c) No observations for this regressor.

S. E. E. is the standard error of the estimate.

$\bar{R}^2$ is the coefficient of determination adjusted for degrees of freedom.

+ = significant at the .10 level.

* = significant at the .05 level.

** = significant at the .01 level.

TABLE 32

ANALYSIS OF LABOR MARKET PERFORMANCE, WHITE FEMALE SAMPLE

Variable	Total Post-High School Before-Tax Earnings in Dollars W_1	Months Unemployed W_2	Months Voluntarily Out-of Labor Force W_3
Weight Factor	153,657[a*] (69,374)	123.48 (144.30)	610.22* (238.59)
Status Control[b]			
NYC	382 (517)	1.29 (1.08)	-4.56* (1.78)
Age	15,464* (6,872)	-11.37 (14.30)	-52.36* (23.64)
Age Squared	-371* (170)	.28 (.35)	1.28* (.58)
Year and Quarter Respondent Left School	-87 (64)	-.29* (.13)	-2.21** (.22)
Total High School Work Experience, in Months	79* (32)	-.13+ (.07)	-.11 (.11)
Marital Status			
Married[b]			
Single	1,168* (468)	2.84** (.97)	-7.60** (1.61)
Widowed, Separated, Divorced	-2,392+ (1,299)	14.84** (2.70)	-5.31 (4.47)
Father'd Education	67 (71)	.08 (.15)	-.15 (.24)
Labor Market Area			
Metropolitan Economic Area: 500,000 or more[b]			
Metropolitan Economic Area: More than 50,000 -- less than 500,000	-1,875** (721)	1.70 (1.50)	4.89* (2.48)

TABLE 32 -- Continued

Variable	Total Post-High School Before-Tax Earnings in Dollars W_1	Months Unemployed W_2	Months Voluntarily Out-of-Labor Force W_3
Rural Functional Economic Area	-1,023	-.45	2.67
	(916)	(1.91)	(3.15)
Rural: Less than 2 persons/sq. mile	763	-2.39	7.42+
	(1,165)	(2.42)	(4.00)
Discriminant Function	-26*	-.00	.13**
	(10)	(.02)	(.04)
Number of Observations	196	196	196
S. E. E.	3,098	6.44	10.66
$\bar{R}^2$	.6001	.3109	.8057
F-Ratio	21.12	6.35	58.37

Notes: (a) This is the partial regression coefficient. The number in parentheses is the standard error of the regression coefficient.

(b) This regressor enters the intercept term. See Table 25 for the interpretation of dummy variables and scaled variables.

S. E. E. is the standard error of the estimate.

$\bar{R}^2$ is the coefficient of determination adjusted for degrees of freedom.

+ = significant at the .10 level.

* = significant at the .05 level.

** = significant at the .01 level.

TABLE 33

ANALYSIS OF LABOR MARKET PERFORMANCE, NEGRO FEMALE SAMPLE

Variable	Total Post-High School Before-Tax Earnings in Dollars W_1	Months Unemployed W_2	Months Voluntarily Out-of-Labor Force W_3
Weight Factor	2,647[a]	228.75**	-102.53
	(67,966)	(81.55)	(192.96)
Status Control NYC	1,217+	-2.00*	-3.11
	(681)	(.81)	(1.93)
Age	36	-22.31**	15.68
	(6,636)	(7.96)	(18.84)
Age Squared	24	.55**	-.39
	(162)	(.19)	(.46)
Year and Quarter Respondent Left School	-335**	-.01	-1.56**
	(85)	(.01)	(.24)
Total High School Work Experience, in Months	34	-.08	.19
	(75)	(.09)	(.21)
Marital Status Married[b]			
Single	-564	-.07	-.69
	(624)	(.75)	(1.77)
Widowed, Separated, Divorced	625	2.18	2.14
	(2,060)	(2.47)	(5.85)
Father's Education	134	-.07	-.33
	(108)	(.13)	(.30)
Labor Market Area Metropolitan Economic Area: 500,000 or more[b]			
Metropolitan Economic Area: More than 50,000 -- less than 500,000	-1,311+	.81	3.03
	(673)	(.81)	(1.91)

TABLE 33 -- Continued

Variable	Total Post-High School Before-Tax Earnings in Dollars W_1	Months Unemployed W_2	Months Voluntarily Out-of-Labor Force W_3
Rural Functional Economic Area	-278 (6,411)	2.77 (7.69)	5.40 (18.20)
Rural: less than 2 persons/sq. mile[c]	----	----	----
Discriminant Function	-11 (19)	.02 (.02)	.12* (.05)
Number of Observations	109	109	109
S. E. E.	1,852	2.22	5.26
$\bar{R}^2$	.7499	.3367	.7651
F-Ratio	22.14	3.75	24.05

Notes: (a) This is the partial regression coefficient. The number in parenthese is the standard error of the regression coefficient.

(b) This regressor enters the intercept term. See Table 25 for the interpretation of dummy variables and scaled variables.

(c) No observations for this regressor.

S. E. E. is the standard error of the estimate.

$\bar{R}^2$ is the coefficient of determination adjusted for degrees of freedom.

+ = significant at the .10 level.

* = significant at the .05 level.

** = significant at the .01 level.

White female NYC participants earn no more during the period they are eligible for participation in the labor force than do their control group counterparts, even though they have 4.56 fewer months of non-labor force participation. The counter-balancing effect here is that white female NYC participants work 11.3 hours per week less on the average than their control counterparts. Negro female NYC participants, on the other hand, earn $1,217 more ($90 more per month) than their control counterparts during the time they are eligible to be in the civilian labor force. The difference is significant at the .10 level of significance. Likewise, Negro female NYC participants experience 2.00 months less unemployment.

The pattern of effect for the marital status variable is generally consistent with other studies of labor force behavior. There is no difference in earnings, months unemployed or months withdrawn from the labor force between Negro women in the NYC and their control counterparts. However, single white women earn $1,168 more than married white women and experience 7.60 fewer months of labor force withdrawal. Widowed, separated or divorced white women earn $2,392 less than married white women, though there is no difference in the number of months they have withdrawn from the labor force.

In summary, the last three sections of the study have demonstrated that Negroes benefit more from the NYC program than do whites. And Negro males benefit more than white males while Negro females benefit more than white females. In fact, it is the differential benefits for these Negro groups which account for much of the overall benefit to the total sample.

It is important to note that the discriminant variable has a zero effect on earnings for both the male and female Negro sample, as it does for the Negro sample as a whole. Thus, the socio-demographic and psychological differences within the above Negro samples, to the extent that they are expressed by the discriminant function and influence selection into the NYC program, are not large enough to suggest that the Negro NYC and control samples do not come from the same population. On the other hand, the sign of the discriminant function for the white, the white male and the white female sample, is negative with respect to earnings, thus suggesting that those characteristics which lead to an increased probability of participation in the NYC also lead to decreased earnings after high school. However, we have not explicitly tested to see if it can be said that the respective white and Negro NYC and control samples come from the same population.

F. Private Economic Benefits

Private economic benefits (W_4) are considered to be total post-high school after tax earnings. This is a measure of before tax earnings minus federal income and social security taxes. The same regression model is used to estimate these private economic benefits as was used to estimate social economic benefits except that two additional variables were added to the model. The first of these is a dummy variable, X_{18}, for head of household. It has a value of one if the respondent is a household head and zero, otherwise. The second variable, X_{19}, is an interaction variable formed by multiplying X_{18} times the number of dependents a household head has. This interaction variable implies that the rate of tax payment is different for

those household heads who have dependents in contrast to those who have no dependents. Since household heads are more likely to be employed, they are likely to pay more taxes than those who are not household heads. Also, as the number of dependents of a household head increases, taxes paid should decrease.

Tables 34 and 35 show the estimated results. NYC members earn $702 dollars more during the time they are eligible to be in the civilian labor force than do their control group counterparts. This amounts to about $38 more per month. Household heads earn $2,055 more than non-heads of households, which is as expected.

Table 35 shows that, relative to social economic benefits, the same private benefit patterns tend to hold up for Negroes and Negro males and females. White NYC participants earn a total of $794 in private monetary benefits while Negro NYC participants earn $1,186. This difference is due mainly to the fact that Negro male NYC participants earn $1,094 more than do their control group counterparts. Negro female NYC participants gain no private monetary benefit from being in the NYC program, nor do white female NYC participants. Thus, the private monetary benefits of the Negro female NYC participants are taxed away from them since they do earn positive social monetary benefits. This situation raises an interesting policy question. In short, based on social monetary benefits (ignoring costs for the moment) it is desirable for society to encourage Negro females to participate in the NYC. However, from a private standpoint, it does not pay Negro females to participate in the NYC. Thus, for this group, the taxing away of monetary benefits creates an inefficient situation

TABLE 34

ANALYSIS OF LABOR MARKET PERFORMANCE, TOTAL SAMPLE, FOR TOTAL POST-HIGH SCHOOL AFTER TAX EARNINGS AND TOTAL FEDERAL INCOME PLUS SOCIAL SECURITY TAXES, IN DOLLARS

Variable	Total Post-High School After Tax Earnings W_4	Total Federal Income Plus Social Security Taxes W_5
Weight Factor	-11,308[a]	-1,682
	(26,699)	(6,694)
Status		
Control[b]		
NYC	702*	109
	(283)	(71)
Age	1,777	302
	(2,604)	(653)
Age Squared	-39	-7
	(64)	(16)
Year and Quarter Respondent Left School	-119**	-28**
	(33)	(8)
Total High School Work Experience, in Months	-6	-2
	(14)	(4)
Marital Status		
Married[b]		
Single	202	105
	(274)	(69)
Widowed, Separated, Divorced	-851	-131
	(694)	(174)
Respondent is Household Head	2,055**	439**
	(415)	(104)
Household Head time Number of Dependents	-330	-153*
	(293)	(74)

TABLE 34 -- Continued

Variable	Total Post-High School After Tax Earnings W_4	Total Federal Income Plus Social Security Taxes W_5
Father's Education	16 (35)	4 (9)
Labor Market Area		
Metropolitan Economic Area: 500,000 or more[b]		
Metropolitan Economic Area: More than 50,000 -- less than 500,000	-1,813** (380)	-440** (95)
Rural Functional Economic Area	-1,488** (519)	-461** (130)
Rural: Less than 2 persons/ square mile	-634 (627)	-456** (157)
Male	887** (268)	176** (67)
Ethnic Origin:		
White[b]		
Negro	-150 (425)	-119 (106)
American Indian	-1,881** (492)	-328** (124)
Mexican American	-674 (412)	-117 (103)
Puerto Rican	4,124* (1,623)	918* (407)
Discriminant Function	-29** (6)	-5** (1)

TABLE 34 -- Continued

Variable	Total Post-High School After Tax Earnings W_4	Total Federal Income Plus Social Security Taxes W_5
Number of Observations	676	676
S. E. E.	2,834	710
$\bar{R}^2$	.5853	.3633
F-Ratio	46.30	18.71

Notes: (a) This is the partial regression coefficient. The number in parentheses is the standard error of the regression coefficient.

(b) This regressor enters the intercept term. See Table 25 for the interpretation of dummy variables and scaled variables.

S. E. E. is the standard error of the estimate.

$\bar{R}^2$ is the coefficient of determination adjusted for degrees of freedom.

* = significant at the .05 level.

** = significant at the .01 level.

TABLE 35

ANALYSIS OF LABOR MARKET PERFORMANCE: TOTAL POST-HIGH SCHOOL AFTER TAX EARNINGS AND TOTAL FEDERAL INCOME PLUS SOCIAL SECURITY TAXES, FOR SEPARATE REGRESSION MODELS, IN DOLLARS

Sample Group[c]	Total Post-High School After Tax Earnings	Monthly Post-High school After Tax Earnings[d]	Total Federal Income Plus Social Security Taxes
Total Sample	702[a]*	38	109
	(283)		(71)
Male	876+	62	-129
	(509)		(104)
Female	423	19	53
	(313)		(91)
White	794*	40	124
	(387)		(100)
Negro	1,186**	97	286**
	(447)		(102)
White Male	445*	30	231
	(190)		(152)
Negro Male	1,094+	112	271[b]
	(630)		(165)
White Female	422	17	59
	(438)		(141)
Negro Female	760	56	255*
	(557)		(127)

Notes: (a) The partial regression coefficient. The number in parentheses is the standard error of the partial regression coefficient.

(b) Significant at the .109 level.

TABLE 35 -- Continued

Notes -- Continued

(c) Each of the partial regression coefficients represents the results of a separate regression model. These are the partial regression coefficients of the program status variable and represent the difference in earnings or taxes attributable to the NYC program. Thus, private total post-high school after tax earnings are $702 higher for the NYC group than for the control group over the approximate 18 months period of eligibility for entry into the civilian labor force.

(d) Each value is obtained from the total post-high school after tax earnings divided by total number of months eligible to be in the civilian labor force for each sample group, respectively.

+ = significant at the .10 level.

* = significant at the .05 level.

** = significant at the .01 level.

in society in the sense that private and social benefits provide a basis for divergent investment decisions.

G. Government Benefits: Federal Income and Social Security Taxes

Federal income and social security taxes (W_5) are a benefit to the federal government since these are revenues which the government can use to pursue its governmental and policy goals. The same equations are used to estimate governmental benefits as were used to estimate private economic benefits. The estimated results are shown in Tables 34 and 35 . Of immediate analytical interest is the fact that variables X_{18} and X_{19} behave as expected. Household heads pay $439 more taxes than non-heads of households and for each one-unit increase in the number of dependents, household heads pay $153 less taxes.

The government gains no tax benefits from the NYC program as a whole. Thus, income is being distributed away from those who pay taxes to the government toward those who participate in the NYC. However, if taxpayers feel that this NYC program and the resulting income distribution is "good" or achieves desirable ends, then they will be receiving non-monetary and non-economic benefits as a result of their tax support of the NYC program. Therefore, while the government may not benefit in the narrow sense, government tax payers still may benefit.

As shown in Table 35, neither male nor female NYC participants pay net taxes to the government. Also, white NYC participants pay no more taxes to the government than do their control group counterparts. However, Negro NYC participants pay $286 more in taxes to the federal government than do their control group counterparts. Negro male NYC participants pay $271

in additional taxes due to participation in the NYC program but this difference is significant at only the .109 level of significance. Negro female NYC participants pay $255 more in federal and social security taxes than do their control group counterparts.

Thus, even while white NYC participants benefit in private terms, they pay no additional taxes and while Negro female NYC participants do not benefit in private monetary terms, they pay $255 in added taxes!

In short, several things stand out. First, to the extent that the federal government receives any net tax revenues from its investment in the NYC program, these tax benefits accrue to it from the Negro NYC participants. Second, inefficiencies in the program exist in the sense that private and social monetary benefits do not move in the same direction for Negro female NYC participants. Finally, from a narrower point of view, the federal government is providing private monetary benefits to white and white male NYC participants while it receives no net tax increment from these two groups.

H. Benefits to Program Components

The Neighborhood Youth Corps participants could participate in the program in three possible ways. First, they could enroll as an in-school participant. Or, they could enroll only as a summer participant. Finally, they could enroll as both an in-school and a summer participant. It is of interest to determine the relative benefits to each of these three NYC program alternatives. To do so, NYC participants were broken into three groups, depending on their mode of program participation. Regression models of labor market behavior for the three groups were estimated according

to the regression models shown earlier in this chapter. There is one difference, however. A given project in an ultimate area could have both in-school and summer participants in it. If such was the case, the control group for that project did double duty, and served as a control for each type of participant for that NYC project. The estimate results for net benefits are shown in Tables 36 and 37.

One point in these results is of major interest: Those participants who engaged only in a summer NYC program have received no labor market benefits as these benefits are measured in this study. There is no statistical difference between the NYC and control groups for any of the monetary measures of benefit. Nor does breaking the summer sample into its major sex and ethnic components reveal any benefit. Table 36 reveals that except for females, there is no statistical significance between the NYC and control groups with respect to total months unemployed or total months voluntarily withdrawn from the civilian labor force. Female NYC participants were unemployed 3.22 months more than their control counterparts even though they had 5.65 months less voluntary withdrawal from the civilian labor force. NYC females in the summer program also earned $.24 less per hour and worked 12 ferwer hours per week than did their control counterparts. Thus, there was no net difference in their earnings.

As Table 37 shows, NYC participants who only engaged in an in-school program received the highest net benefit over their respective control group--$908 in post-high school before tax earnings in the 17.46 months the total in-school NYC control group was eligible to be in the civilian labor force.

TABLE 36

ANALYSIS OF LABOR MARKET PERFORMANCE: TOTAL NUMBER OF MONTHS UNEMPLOYED AND TOTAL NUMBER OF MONTHS VOLUNTARILY NOT IN THE CIVILIAN LABOR FORCE, FOR THE IN-SCHOOL ONLY, SUMMER ONLY, AND IN-SCHOOL AND SUMMER COMBINED NEIGHBORHODD YOUTH CORPS GROUPS, BY SEPARATE REGRESSION MODELS

	In-School Only[a]		Summer Only		In-School and Summer Combined	
Sample Group	Total Months Unemployed	Total Months Voluntarily Out-of-Labor Force	Total Months Unemployed	Total Months Voluntarily Out-of-Labor Force	Total Months Unemployed	Total Months Voluntarily Out-of-Labor Force
Total Sample	-.25[b] (.66) 437	-3.80** (1.21)	.41 (.90) 308	-.81 (1.53)	-1.36* (.58) 354	-3.78* (1.52)
Male	-1.82** (.62) 207	-2.74+ (1.53)	-.08 (.71) 145	2.50 (1.83)	-1.37* (.61) 174[c]	-2.90+ (1.65)
Female	1.51 (1.12) 230	-6.13** (1.72)	3.22* (1.50) 163	-5.65** (2.09)	-.46 (.94) 176[c]	-3.68+ (1.94)
White	-.49 (.92) 263	-3.26+ (1.71)	.15 (.56) 178	-.72 (1.68)	-1.11 (.78) 213	-5.08* (2.00)
Negro	-3.09** (1.01) 109	-4.48* (1.83)	-2.26 (1.51) 71	-.14 (2.61)	-2.07** (.77) 92	-.78 (2.42)

Notes: (a) In-School Only = those participants who enrolled only as an in-school NYC participant; Summer Only = those participants who enrolled only as a summer NYC participant; In-School and Summer Combined = those participants who enrolled both as an in-school and a summer NYC participant.

TABLE 36 -- Continued

Notes -- Continued

(b) The figures are, in descending order, the partial regression coefficient for the program status variable (NYC = 1, Control = 0), the standard error of the partial regression coefficient, and the sample size. Each regression coefficient represents the results of a separate regression model. The regression models for the total sample and sub-groups are the same as those for the comparable groups described previously in the text of this chapter. A control group for a given NYC project could serve as a control group for more than one NYC program group if the particular NYC project in an ultimate area was composed of more than one type of NYC program.

(c) Four observations were lost in the computation process for these two groups.

\+ = significant at the .10 level.

* = significant at the .05 level.

** = significant at the .01 level.

TABLE 37

ANALYSIS OF LABOR MARKET PERFORMANCE: TOTAL POST-HIGH SCHOOL BEFORE TAX EARNINGS, TOTAL POST-HIGH SCHOOL AFTER TAX EARNINGS, TOTAL FEDERAL INCOME AND SOCIAL SECURITY TAXES, FOR THE IN-SCHOOL ONLY, SUMMER ONLY AND THE IN-SCHOOL AND SUMMER COMBINED NEIGHBORHOOD YOUTH CORPS GROUPS, BY SEPARATE REGRESSION MODELS, IN DOLLARS

Sample Group	In-School Only[a]			Summer Only			In-School and Summer Combined		
	W_1[b]	W_4	W_5	W_1	W_4	W_5	W_1	W_4	W_5
Total Sample	908[c]*	609+	164+	547	448	71	784+	650+	64
	(422)	(348)	(96)	(492)	(403)	(85)	(475)	(391)	(86)
	437			308			354		
Male	1,274+	508	18	854	840	146	304	77	-95
	(710)	(595)	(142)	(955)	(743)	(178)	(761)	(608)	(155)
	207			145			174[d]		
Female	893+	831+	207	267	251	13	741	737	93
	(542)	(463)	(148)	(425)	(386)	(59)	(550)	(469)	(80)
	230			153			176[d]		
White	906	576	169	793	739	128	1,102+	627	47
	(584)	(486)	(141)	(690)	(563)	(120)	(644)	(518)	(118)
	263			178			213		
Negro	1,952**	1,417*	280*	847	-261	251	1,090	918	179
	(691)	(564)	(130)	(999)	(835)	(242)	(776)	(659)	(145)
	109			71			92		

Notes:

(a) In-School Only = those participants who enrolled only an an in-school NYC participant; Summer Only = those participants who enrolled only as a summer NYC participant; In-School and Summer Combined = those participants who enrolled as both in-school and summer participants.

TABLE 37 -- Continued

Notes -- Continued

(b) W_1 = Total Post-High School Before Tax Earnings; W_4 = Total Post-High School After Tax Earnings; W_5 = Total Federal Income and Social Security Taxes.

(c) The figures are in descending order, the partial regression coefficient for the program status variable (NYC = 1, Control = 0); the standard error of the partial regression coefficient, and the sample size. Each regression coefficient represents the results of a separate regression model. The regression models for the total sample and sub-groups are the same as those for the comparable groups described previously in the text of this chapter. A control group for a given NYC project could serve as a control for more than one NYC program group if the particular NYC project in an ultimate area was composed of more than one type of NYC program.

(d) Four observations were lost in the computation process for these two groups.

\+ = significant at the .10 level.

* = significant at the .05 level.

** = significant at the .01 level.

Both the male and female NYC groups experience net social benefits, though these benefit differentials are significant only at the .10 level. The male NYC benefits are gained over a period of 13.58 months of eligibility for civilian labor force participation, while the female benefits are gained over a period of 20.94 months.

Finally, it seems clear that the net monetary benefits to Negroes are responsible for much of the success of the in-school program. White NYC participants gain no net benefits while Negro NYC participants gain $1,952 more in total post-high school before tax earnings relative to their control counterparts in the 14.55 months this sample group is eligible to be in the civilian labor force. Likewise, it is of interest that Negroes return $280 of net benefits to the federal government in the form of federal income and social security taxes while whites do not return any net governmental monetary benefits.

Those persons who participated in both an in-school and a summer NYC program return smaller net social benefits than do those who participated only in an in-school program. Also, the benefits are significant at a lower level of statistical significance.

None of the different sample groups for this NYC program combination return any net governmental monetary benefits.

What are the possible reasons for this differential pattern of labor market performance among thse three NYC program possibilities? It is most likely that the lack of measured labor market benefits for the summer program is due to the very short length of participation in this program. The summer respondents are involved in the NYC for an average of only 3.5

months. (See Table 24 in Chapter IV.) Also, a period of schooling usually intervenes between the time these participants leave the summer NYC and the time they finally enter the labor market. Thus, the short period in the NYC with which to gain labor market discipline and skills together with an intervening time period for a partial erosion of these skills and discipline may result in no statistically significant benefits for this group.

The difference between the in-school only and the combined in-school-summer group also appear to be related to the different lengths of time each group spends in the program of its choice. In-school participants are involved in the program 7.91 months while combined in-school-summer participants are involved in their program 9.73 months--a difference of 1.62 months. Gross differences between these two sample groups with respect to average age, father's education, the mean value of the discriminant function, sex, marital and ethnic composition are either not statistically significant or too small to be of explanatory value. Net differences between the two NYC groups and their respective control groups with respect to average hourly wage rate and average hours worked per week based on labor market regression models are not statistically significant. However, the combined in-school-summer NYC group has a net of 3.18 months less eligibility to be in the civilian labor force than its control group counterpart while there is no difference in months eligible to be in the civilian labor force between the in-school only NYC participant and his respective control counterpart. Thus, the longer period spent in the NYC program by the combined in-school-summer group may be a contributing factor to their lower net benefits.

Given a fixed period of time to be eligible for participation in the civilian labor force -- no more than four years -- the increased time spent in the NYC implies fewer months in which to earn monetary benefits. Thus, if the beneficial effects of NYC participation last beyond the period of our analysis, this apparent difference in performance between the in-school only and the combined in-school and summer groups may tend to disappear. Further analysis based on the number of months a person participated in the NYC will help clarify this issue. This analysis follows in the next section.

I. Benefits as a Function of Length of Stay in the NYC

This section will use the same basic benefit model, equation (1) of this chapter, as in the previous analysis. However, instead of using a dummy variable for NYC status, membership in the NYC is expressed in terms of the number of months enrolled in the NYC, X_{20}, and the square of the number of months, X_{20}^2. In other words, the control sample observations will still have a zero value as with the dummy variable for respondent program status, but the value of the NYC status will now be coded by the number of months enrolled in the NYC program, instead of the dummy variable code of one for all the NYC sample. The dependent variables are the total post-high school before tax earnings, total months of unemployment and total months of voluntary labor force withdrawal. The estimated results are in Table 38 .

Both a linear and a linear quadratic form for the variable, length of stay in the NYC, have been estimated. The quadratic form provides a better statistical estimate than the linear form. The linear form was not

TABLE 38

ANALYSIS OF LABOR MARKET PERFORMANCE, TOTAL SAMPLE FOR NYC PARTICIPATION EXPRESSED IN NUMBER OF MONTHS OF ENROLLMENT

Variable	Total Post-High School Before-Tax Earnings in Dollars W_1	Months Unemployed W_2	Months Voluntarily Out-of-the Labor Force W_3
Weight Factor	-21,684[a]	-55.38	404.46
	(32,592)	(57.59)	(92.09)
Months in NYC	3	-.08[+]	-.12[+]
	(26)	(.05)	(.07)
Months in NYC Squared	-0[*]	-.00	.00[*]
	(0)	(.00)	(.00)
Age	2,876	7.03	-34.28[**]
	(3,181)	(5.62)	(8.99)
Age Squared	-63	-.19	.85[**]
	(78)	(.13)	(.22)
Year and Quarter Respondent Left School	-117[**]	-.33[**]	-1.71[**]
	(40)	(.07)	(.11)
Total High School Work Experience, in Months	-11	-.06[*]	-.10[*]
	(17)	(.03)	(.05)
Marital Status			
Married[b]			
Single	-66	1.16[*]	-5.29[**]
	(311)	(.55)	(.88)
Widowed, Separated, Divorced	-833	7.18[**]	-12.60[**]
	(846)	(1.49)	(2.39)
Father's Education	4	.06	.02
	(43)	(.07)	(.12)
Labor Market Area			
Metropolitan Economic Area: 500,000 or more[b]			

TABLE 38 -- Continued

Variable	Total Post-High School Before-Tax Earnings in Dollars W_1	Months Unemployed W_2	Months Voluntarily Out-of-the Labor Force W_3
Metropolitan Economic Area: More than 50,000 -- Less than 500,000	-2,242** (470)	2.18** (.83)	1.70 (1.32)
Rural Functional Economic Area	-1,881** (645)	.34 (1.14)	.54 (1.18)
Rural: Less than 2 persons/sq. mile	-762 (766)	-.01 (1.35)	4.88* (2.17)
Male	1,663** (299)	-.63 (.53)	-3.14** (.84)
Ethnic Origin			
White[b]			
Negro	-591 (530)	.77 (.95)	1.72 (1.50)
American Indian	-2,315** (607)	4.52** (1.07)	-.13 (1.71)
Mexican American	-764 (505)	0.69 (0.89)	.57 (1.42)
Puerto Rican	5,189** (1,986)	4.69 (3.51)	-13.02* (5.61)
Discriminant Function	-31** (6)	.01 (.01)	.06** (.02)
Number of Observations	669	669	669
S. E. E.	347.18	6.13	9.81
$\bar{R}^2$	.54	.25	.71
F-Ratio	41.00	11.41	85.26

TABLE 38 -- Continued

Notes: (a) This is the partial regression coefficient and the standard error of the coefficient.

(b) This regressor enters the intercept term. The remaining regressors in this variable set are interpreted as deviations from this regressor. Thus, single persons earned $66 less than married persons in the year and a half period the study sample was eligible to be in the civilian labor force. However, the difference is not statistically significant.

S. E. E. is the standard error of the estimate.

$\bar{R}^2$ is the coefficient of determination adjusted for degrees of freedom.

+ = significant at the .10 level.

* = significant at the .05 level.

** = significant at the .01 level.

statistically significant while the two regressors for the quadratic form were significant at a level of .01 with an F-ratio of 11.9 for two and 667 degrees of freedom. Furthermore, the quadratic form can be used to derive the period of stay in the NYC which will maximize gains or minimize losses for the participants with respect to their labor market benefits. The signs and the magnitude of the coefficient of the variable length of stay in the NYC in the earnings equation suggest that the earnings of the participants will accumulate as they stay longer in the program up to about 13 months of NYC participation.[11] This finding is consistent with the results from the earnings equation estimated separately, by types of programs in which the longer program (the in-school program) is more effective on earnings than the short program (the summer program).

The equations of months of unemployment and total months of voluntary labor force withdrawal are consistent findings vis-a-vis the earnings equation. The findings of the unemployment equation indicate that the longer one stays in the NYC program, the less likely he is to be unemployed. In this equation the quadratic term is not statistically significant, and thus, the implication is that months of unemployment and the length of stay in the NYC program are negatively and linearly related.

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[11] This value is derived from the first derivative with respect to the variable month in NYC, X_{20}, and then the first derivative is set equal to zero; namely $\frac{\partial W_1}{\partial X_{20}} = 2.685 - (2 \cdot .104 \cdot X_{20}) = 0.$

Solving for X_{20}, the value is 12.9 months. This is the maximum period of months that participants can have positive effects on earnings due to the program. Mathematically, this maximum solution is shown by the fact that the second derivative has a negative value.

In the equation of months of voluntary non-labor force participation both the linear term and the squared terms of X_{20} are statistically significant. The signs of the coefficient of these two regressors show there is a minimum solution for the months of voluntarily out-of-the labor force with respect to the length of stay in the NYC program. The solution suggests that the months of voluntarily out-of-the labor force of the participants will be decreasing as they stay longer in the program up to about 200 months of the NYC participation. Obviously this result is beyond both the reasonable and the actual length of the NYC program. However, one still can argue that within the current length of the NYC program, the participants will reduce their months of voluntarily out-of-the labor force if they stay longer in the NYC program.

J. Conclusions

Although we must think of the control group of the study more as a comparison group than a control group in the strict experimental sense, the following major conclusions stand out.

The Neighborhood Youth Corps program does yield substantial net monetary benefits to its participants. However, this effect is selective among sex and ethnic groups. Negroes benefit more than whites, for instance.

Also, the soundness of the measured benefits is enhanced since the major labor market variables in the model generally behave in patterns consistent with findings in other studies of labor market behavior.

Private monetary benefits are also large and positive. However, the NYC as a whole does not return any net tax benefits to the federal government. Certain groups, particularly Negro females, do return a net tax benefit.

But for this group there is a divergence between social and private economic efficiency.

The summer NYC program component does not appear to yield any net labor market benefits and the in-school component appears to be superior to a combined in-school and summer enrollment sequence for the average NYC participant.

Finally, the maximum length of participation whereby benefits will continue to accrue to an NYC participant is about 12 to 13 months. Beyond this point, additional benefits become negative.

CHAPTER VI

ANALYSIS OF THE EDUCATIONAL BENEFITS OF THE NEIGHBORHOOD YOUTH CORPS

A. Introduction

This chapter analyzes the educational benefits of the in-school and summer Neighborhood Youth Corps. This analysis deals directly with the legislative goals of the NYC, for the intent of the NYC program is to increase the likelihood that a student will graduate from high school or at least gain added years of high school education. This chapter analyzes four different indexes of educational performance. These indexes are: (1) the probability of high school graduation, Z_1; (2) the number of years of high school completed, Z_2; (3) the probability of college attendance, given high school graduation, Z_3; and, (4) the probability of securing post-high school education other than college, given high school graduation, Z_4. Each index gives a slightly different dimension to the educational benefits of the in-school and summer NYC.

Plan of the Chapter. This chapter first analyzes the educational benefits of the NYC for the total sample and selected sample sub-groups based on sex and ethnic breakdowns. Next, the educational benefits to the three different types of NYC experience are analyzed. These types are: (1) participation only in an in-school program; (2) participation only in a summer program; and, (3) participation in both an in-school and a summer NYC program component. Finally, educational benefits are estimated as a function of the time spent in the NYC.

B. High School Graduation and Years of High School Completed

Total Sample. A total sample of 780 usable observations exists to analyze the impact of the NYC upon the probability of graduation from high school and its impact on the total years of high school completed. Both the field questionnaire and the school record data sheet were used to establish the graduation status of the sample. In most cases the data from the two instruments agreed; there were times, however, when the two sets of data did not. This was due to a number of factors, such as the fact that a student's school data file may not have been kept up to date, or that no school data file existed. Whether we ultimately accepted the interviewee's word or the data from the school record data sheet was based on judgment as to the overall accuracy of each of the two instruments in question.

The same statistical model is used to analyze both probability of graduation and years of schooling completed. The model is as follows:

$$(1)\quad Z_{1_i} X_{1_i}^{\frac{1}{2}} = a_1 X_{1_i}^{\frac{1}{2}} + a_2 X_{2_i} X_{1_i}^{\frac{1}{2}} + a_3 X_{3_i} X_{1_i}^{\frac{1}{2}} + a_4 X_{4_i} X_{1_i}^{\frac{1}{2}} + a_5 X_{5_i} X_{1_i}^{\frac{1}{2}}$$
$$+ a_6 X_{6_i} X_{1_i}^{\frac{1}{2}} + a_7 X_{7_i} X_{1_i}^{\frac{1}{2}} + a_8 X_{8_i} X_{1_i}^{\frac{1}{2}} + a_9 X_{9_i} X_{1_i}^{\frac{1}{2}} + a_{10} X_{10_i} X_{1_i}^{\frac{1}{2}}$$
$$+ a_{11} X_{11_i} X_{1_i}^{\frac{1}{2}} + a_{12} X_{12_i} X_{1_i}^{\frac{1}{2}} + a_{13} X_{13_i} X_{1_i}^{\frac{1}{2}} + U_{1_i}$$

where

Z_1 = probability of high school graduation -- 1 = graduation, 0 = otherwise;

X_1 = weight factor;

X_2 = respondent status -- 1 = NYC participant; 0 = control group member;

X_3 = age of respondent, in years, at time of interview;

X_4 = income per capita per family during school attendance, in 10 dollar units;

X_5 = place of residence during school -- 1 = farm residence, 0 = otherwise;

X_6 = number of times the respondent has dropped out of high school prior to ultimately leaving high school;

X_7 = father's education, in years of school completed;

X_8 = ethnic origin -- 1 = Negro, 0 = otherwise;

X_9 = ethnic origin -- 1 = American Indian, 0 = otherwise;

X_{10} = ethnic origin -- 1 = Mexican American, 0 = otherwise;

X_{11} = ethnic origin -- 1 = Puerto Rican, 0 = otherwise;

X_{12} = sex -- 1 = male, 0 = otherwise;

X_{13} = discriminant function, in percentage points;

U_1 = a random disturbance;

$a_1, a_2, \ldots, a_{13}$ = regression coefficients; and,

i = observations 1, 2, 3, ..., n.

The same equation is estimated for Z_2, number of grades of high school completed.

A discussion of these dependent and independent variables is in order before the analysis is presented.

Dependent Variables. The probability of high school graduation is one of the most explicit indexes of the goals of the NYC program of all the program output variables used in this study. The main focus of the NYC program is to decrease the dropout rate and increase the rate of graduation. Thus, major interest in the study is focused on this variable.

The variable is expressed in dummy form and so the partial regression coefficients are interpreted as probabilities.

Total grades of high school completed relates to the same program goal as does the variable on graduation probability. However, it deals with a different dimension of the school retention problem. For instance, it may be that the data indicate that the NYC program does not increase the graduation rate but does result in encouraging students to stay in school and complete more grades of schooling. This variable will provide a test of this hypothesis. Note that this index of performance measures a less desirable type of objective since evidence exists that high school education short of actual graduation from high school yields a lower rate of return than graduation from high school.[1]

Independent Variables. The model for the total sample contains ten variables; however, since the ethnic origin variable is expressed in dummy form, there are a total of 13 regressors in the model, including the weight factor which serves as the intercept term in the model.

It is hypothesized that the functional relationship between the probability of graduation and participation in the NYC is positive. A similar hypothesis is adopted with respect to grades of high school completed. It is not clear what the sign of the age variable should be with respect to the probability of graduation from high school. However, it is likely that age is positively related to the number of grades of high school completed simply because increased age allows more years of schooling.

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[1] See, for instance, W. Lee Hansen, "Total and Private Rates of Return to Investment in Schooling" Journal of Political Economy, April, 1963.

Income per capita per family is a variable of major interest in this study since the design of the Neighborhood Youth Corps is predicated on the assumption that there is a positive relation between family income and educational performance. It is argued that children often drop out of school due to the inability of their families to bear the opportunity cost of sending their children to school. This opportunity cost includes both the direct outlays involved in schooling, such as cost of clothing, lunches and transportation, as well as the cost of earnings foregone by students while they are attending school. These costs can be relatively large in a family budget and inability to support these costs may discourage consistent school attendance. As noted in Chapter I, Weisbrod reports a positive relation between school attendance and the business cycle--school attendance tends to decline as the level of unemployment declines among teenage youth. Table 39 shows the gross correlation coefficients between income per capita per family while the respondent was in high school and his probability of graduation and years of high school completed. The sign of all these correlation coefficients is positive.

For the total sample, about 55 percent of the gross variation in the probability of high school graduation is associated with variation in the income variable. About 81 percent of the gross variation in years of high school completed is associated with variation in the income variable. However, these relationships can change in a model which incorporates additional explanatory variables. For instance, income per capita per family is also highly correlated with father's education. Father's education is also highly correlated with the probability of high

school graduation and years of high school completed. For the total sample and for males and females and whites, the zero order correlation of father's education with the two education variables is generally somewhat higher than that of the income variable. But for Negroes, Mexican Americans, and Negro males, for instance, the correlation of father's education with these two school performance variables is somewhat lower than the correlation of the income variable. So, for these latter groups, the income variable may be more important in explaining educational performance than is father's education.

Farm-non-farm place of residence is an adjustment for the fact that the Department of Labor defines the income scale of disadvantaged persons living on farms differently from the income scale of non-farm families. It is not clear what the sign of this variable should be.

Dropout behavior of the respondent should be negatively related to school performance. As the number of times a respondent has dropped out of high school (prior to that time when he finally leaves) increases, the probability of high school graduation should decrease. The same relationship should exist with respect to years of high school completed.

Father's education is a proxy variable for socio-economic status. It should be positively related to the probability of high school graduation as well as to the number of years of high school completed.

The variable on ethnic origin is self-explanatory. There are four regressors to this variable. The experiences of the Negro, American Indian, Mexican American, and Puerto Rican ethnic groups are interpreted as deviations from the average experience of the white ethnic group. No

a priori judgment is made with respect to the differences in school performance among these ethnic groups.

The inclusion of the sex variable in the model is self-explanatory. Empirical evidence suggests that males are less likely to graduate than females.[2]

As indicated in Chapter V, the discriminant function is designed to help account for self-selection into the NYC program and to help account for other possible motivational or psychological differences. A zero effect of the discriminant function variable on the two dependent variables is preferred. This zero effect says that the probability of membership in the NYC is not associated with scholastic experience in any statistically significant way.

Empirical Results -- Total Sample. Table39 displays the empirical results for the total sample and for the male and female sub-samples. For the total sample, the main conclusion is that the NYC program has had no statistically significant effect on the probability of high school graduation or on the number of grades of high school completed. Thus, for this study sample, the NYC projects in operation during the 1965-66 and 1966-67 fiscal years had no net effect on increasing the graduation rate. This legislative goal of the NYC program has not been realized, even while the program has yielded substantial labor market benefits.

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[2]See, for instance, John C. Flanagan and William W. Cooley, One Year Follow-Up Studies, Project Talent, Cooperative Research Project Number 2333, School of Education, University of Pittsburgh, 1966, Table 3-3, p. 30.

TABLE 39

ANALYSIS OF HIGH SCHOOL EXPERIENCE,
BY TOTAL SAMPLE AND BY SEX

Variable	Total Sample		Male		Female	
	Probability of Graduation	Years of High School Completed	Probability of Graduation	Years of High School Completed	Probability ob Graduation	Years of High School Completed
Weight Factor	.6973[a**]	10.86[*]	.5384[**]	10.59[**]	.8889[**]	10.86[**]
	(.1194)	(.39)	(.2000)	(.49)	(.1352)	(.55)
Status Control[b] NYC	-.0046	-.04	-.0586[*]	-.08	.0120	-.07
	(.0152)	(.05)	(.0245)	(.06)	(.0177)	(.07)
Age	.0127[*]	.05[**]	.0174[+]	.08[**]	.0059	.04
	(.0058)	(.02)	(.0097)	(.02)	(.0066)	(.03)
Income per Capita per Family	-.0038[+]	-.01[c+]	-.0031	-.02	-.0016	-.01
	(.0020)	(.01)	(.0041)	(.01)	(.0020)	(.01)
Farm Residence	-.0281	.16[*]	-.0474	.12	.0212	.05
	(.0232)	(.08)	(.0357)	(.09)	(.0300)	(.12)
Number of Times Respondent Dropped High School	-.8888[**]	-1.33[**]	-.8065[**]	-1.10[**]	-.9116[**]	-1.50[**]
	(.1390)	(.04)	(.0231)	(.06)	(.0162)	(.07)
Father's Education	.0044[*]	-.00	.0072[*]	-.01	.0013	.00
	(.0019)	(.01)	(.0029)	(.01)	(.0023)	(.01)
Male	.0304[*]	.06	----[c]	----[c]	----[c]	----[c]
	(0128)	(.04)				

TABLE 39 -- Continued

Variable	Total Sample		Male		Female	
	Probability of Graduation	Years of High School Completed	Probability of Graduation	Years of High School Completed	Probability of Graduation	Years of High School Completed
Ethnic Origin						
White[b]						
Negro	.0305 (.0207)	.09 (.07)	.0151 (.0369)	-.01 (.01)	.0508* (.0222)	.13 (.10)
American Indian	.0131 (.0226)	-.11 (.07)	.2974** (.0489)	.36** (.12)	-.0575* (.0236)	-.14 (.10)
Mexican American	.0244 (.0217)	.26** (.07)	.1072** (.0333)	-.00 (.08)	-.0409 (.0269)	.56** (.11)
Puerto Rican	.0935 (.0908)	-.37 (.30)	-.1571 (.1852)	-1.78** (.45)	.1732+ (.0919)	.04 (.38)
Discriminant Function	.0003 (.0003)	.00040** (.00009)	.0013** (.0004)	.0015 (.0010)	-.0038 (.0033)	.0057** (.0013)
Number of Observations	780	780	343	343	437	437
S. E. E.	.1630	.5296	.1681	.4110	.1412	.5763
$\bar{R}^2$	.9616	.9978	.9574	.0986	.9728	.9976
F-Ratio	1,475.79	26,854.80	619.24	19,293.24	1,264.34	14,762.73

TABLE 39 -- Continued

Notes: (a) This is the partial regression coefficient. The number in parentheses is the standard error of the coefficient.

(b) This regressor enters the intercept term. The remaining regressors in this variable set are interpreted as deviations from this regressor. The regression coefficients for probability of graduation are treated as probabilities, or when multiplied by 100, as percentages. Thus, for the total sample, the average NYC participant is .46 of one percent less likely to graduate than his control group counterpart. However, the difference is not statistically significant. The regression coefficients for years of high school completed are interpreted as fractions of years. Thus, for the total sample, the average NYC participant completed .04 years less of education than his control group counterpart. However, the difference is not statistically significant.

(c) Unrounded values of these statistics are -.0115 and (.0064), respectively.

(d) Unrounded values of these statistics are -.016 and (.010), respectively.

S. E. E. is the standard error of the estimate.

$\bar{R}^2$ is the coefficient of determination adjusted for degrees of freedom.

+ = significant at the .10 level.

* = significant at the .05 level.

** = significant at the .01 level.

The reason for the lack of statistically significant effect appears to be the relative weakness of the hypothesis upon which the program is premised, given the target population. Even though, as Table 36 shows, there is a relatively strong gross correlation between income per capita per family and the two indexes of educational performance used in this study, the net effect of the income variable is negative for the total sample. In Table 39, a ten dollar increase in per capita income per family results in a decreased probability of high school graduation of .38 of one percent. The coefficient is significant only at the .10 level, however. Thus, the net relation between per capita family income and the probability is a negative one for this statistical model.

Note also in Table 40 that among various sample subgroups the effect of the income variable is generally zero or negative. Only for the white females who participated only in a summer NYC program is the net effect in the hypothesized direction. It is the positive effect of this variable for the white female sample which is responsible for the positive effect among whites, females, and the total sample of summer only respondents. Except for males who participated in both an in-school and a summer NYC program, the net effect of the income variable among the remaining 67 different groups displayed in this table is zero or negative.

It is possible, of course, that there is a misspecification of the model used to explain educational performance and that this misspecification is the cause of the negative sign for the income variable. While there is not much theoretical guidance in this area, we do not feel that a misspecification exists in terms of the variables included in the model.

TABLE 40

REGRESSION ANALYSIS OF THE NET EFFECTS OF INCOME PER CAPITA PER FAMILY ON PROBABILITY OF HIGH SCHOOL GRADUATION AND NUMBER OF YEARS OF HIGH SCHOOL COMPLETED, FOR THE TOTAL PROGRAM AND FOR IN-SCHOOL ONLY, SUMMER ONLY AND COMBINED IN-SCHOOL AND SUMMER NEIGHBORHOOD YOUTH CORPS PROGRAM COMPONENTS

Sample Group	Total Program		In-School Program Only		Summer Program Only		Combined In-School and Summer Program	
	Probability of Graduation	Years of High School Completed	Probability of Graduation	Years of High School Completed	Probability of Graduation	Years of High School Completed	Probability of Graduation	Years of High School Completed
Total Sample	-.0038[b+]	-.01[c+]	.0031	.04**	-.0054+	-.03**	.0022	.01
	(.0020)	(.01)	(.0033)	(.11)	(.0030)	(.01)	(.0030)	(.01)
Male	-.0031	-.02[c]	.0075	-.01	-.0096	-.03[c+]	.0109**	.01
	(.0041)	(.01)	(.0046)	(.01)	(.0080)	(.02)	(.0039)	(.01)
Female	-.0016	-.01	-.0017	.07**	-.0013	-.03**	.0026	.01
	(.0020)	(.01)	9.0044)	(.02)	(.0021)	(.01)	(.0041)	(.01)
White	-.0054*	.01	-.0015	.06**	-.0079*	-.01	-.0019	.01
	(.0022)	(.01)	(.0036)	(.01)	(.0036)	(.01)	(.0032)	(.01)
Negro	.0026	-.02	.0034	-.04[c]	-.0020	-.05[c+]	.0001	-.03
	(.0057)	(.02)	(.0076)	(.02)	(.0066)	(.03)	(.0098)	(.02)
White Male	-.0073+	-.02[c+]	.0014	-.00	-.0195*	-.04*	.0034	.01
	(.0037)	(.01)	(.0037)	(.01)	(.0083)	(.02)	(.0033)	(.02)

TABLE 40 -- Continued

Sample Group	Total Sample: Probability of Graduation	Total Sample: Years of High School Completed	In-School Program Only: Probability of Graduation	In-School Program Only: Years of High School Completed	Summer Program Only: Probability of Graduation	Summer Program Only: Years of High School Completed	Combined In-School and Summer Program: Probability of Graduation	Combined In-School and Summer Program: Years of High School Completed
Negro Male	-.0014	-.04	-.0032	.09	-.0032	-.01	-.0029	-.01
	(.0036)	(.03)	(.0069)	(.06)	(.0073)	(.02)	(.0060)	(.02)
White Female	-.0043	.02+	-.0046	.10**	-.0039	-.00	-.0021	-.00
	(.0030)	(.01)	(.0060)	(.21)	(.0036)	(.01)	(.0053)	(.02)
Negro Female	.0056	.00	.0078	-.01	-.0025	-.08*	.0040	-.01
	(.0074)	(.02)	(.0088)	(.02)	(.0101)	(.04)	(.0140)	(.02)

Notes: (a) Each of the partial regression coefficients in this table represents the results of a separate regression model. The NYC program components of In-School Program Only, Summer Program Only and Combined In-School and Summer Program are defined as in Chapter V. The separate regression models contain all those variables shown in Table 37 except the independent variables on which the sample group is based. Thus, the Negro female group contains all those independent variables shown in Table 37 except those of sex and the four regressors of the ethnic origin variable.

(b) The partial regression coefficient. The number in parentheses is the standard error of the partial regression coefficient. The coefficients are interpreted as follows: For the Total Sample--Total Program, a ten dollar increase in income per capita per family leads to a decrease of .38 of one percent (.0038 x 100 = .38%) in the probability of high school graduation. A one hundred dollar increase leads to a 3.8 percent decrease in the probability of graduation. Next, a ten dollar increase in per capita income per family leads to a decrease of .01 years of high school attendance. A one hundred dollar increase would lead to a decrease of .10 of one year of high school attendance. The above statistics are significant at a .10 level of significance.

TABLE 40 -- Continued

Notes -- Continued

(c) Errors in rounding lead to an apparent statistical significance or lack of it. Statistical significance is indicated by the appropriate symbol.

+ = significant at the .10 level.

* = significant at the .05 level.

** = significant at the .01 level.

We have kept the number of explanatory variables at the minimum deemed reasonable, given the general lack of theoretical guidance in this area. Consider the variables: age, sex, ethnic origin and one's previous high school dropout behavior are all conceptually relevant and should be in the model.

The farm residence variable is mainly an adjustment for the fact that family income guidelines which define a disadvantaged person differ between those who make their living on a farm as against those who do not. Father's education is an adjustment for socio-economic status. Numerous studies have shown a positive relationship between father's educational attainment and the educational attainment of children.[3] Thus, this variable is also conceptually relevant. And, of course, the discriminant function is required. There is, of course, intercorrelation between the program status variable and income per capita per family. But the income variable is needed to standardize for family income differences between the NYC group and the control group.

However, a misspecification can exist in terms of the functional form of any of the variables included in the model. This is, in part, the case. As is shown in section D, changing the functional form of the program status variable from a dummy form, where the control group member has a value of zero and the NYC member has a value of one, to a scaled variable based on length of time in the NYC program, results in a small but positive and statistically significant effect of the NYC program on

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[3]See James N. Morgan, et al., Income and Welfare in the United States, (New York: McGraw-Hill, 1962).

both the probability of high school graduation and the number of years of high school completed. The dummy form of this program status variable gives an equal weight to persons who are in the NYC program a short time and to persons who are in the program for a longer period of time. It is arbitrary and incorrect to exclude from the program evaluation those persons, who, in terms of their short stay or early dropout from the NYC, might be considered "failures" in the program. They must be considered along with the "successful" persons who stay in the program. However, these two types of persons should not necessarily be weighted equally. By assigning to the NYC participant the value of the number of months he is enrolled in the program, persons staying in the program longer have a greater weight. And, thus, the longer-term effects of the NYC program on school performance can be identified and estimated. At and around the sample mean, for months enrolled in the NYC, as an NYC participant remains in the program for one additional month, his probability of graduation increases by .23 of one percent. This coefficient is significant at above the .05 level. Also, as the NYC participant stays in the program one month longer, he will tend to complete an additional .006 of a school year (assuming a 36 week school year) or about .22 percent of one week--a day or two. This effect is significant at the .10 level. These are small effects, but nevertheless, positive.

The question then becomes, why are the effects so small and, for the dummy variable form, usually zero. The answer probably lies in the premisses upon which the program is postulated.

TABLE 41

ZERO ORDER (GROSS) CORRELATION COEFFICIENTS
BETWEEN INCOME PER CAPITA PER FAMILY AND
SELECTED INDEPENDENT VARIABLES, FOR
SELECTED SAMPLE GROUPS

Sample Group	Probability of Graduation from High School	Years of High School Completed	Father's Education
Total	.548[a]	.809	.725
Male	.598	.843	.741
Female	.526	.797	.726
White	.551	.807	.759
Negro	.774	.853	.645
American Indian	.148	.612	.709
Mexican American	.637	.947	.558
White Male	.501	.808	.726
Negro Male	.772	.879	.559
White Female	.578	.810	.785
Negro Female	.778	.843	.737

Notes: (a) Multiplication of these statistics by 100 converts them into percentages. Thus, 54.8 percent of the variation in the probability of graduation from high school is positively associated with the variation in income per capita per family while in high school.

TABLE 42

LABOR MARKET BEHAVIOR OF NYC AND CONTROL GROUP DROPOUTS
WHO WORKED AFTER LEAVING HIGH SCHOOL

Variable	NYC	Control	Total Sample
Percent worked in high school	31.40	29.03	30.40
Average hr./week worked in high school	14.32 (31.84)	9.78 (22.09)	12.42 (28.17)
Average hr./week worked after high school	40.65 (36.94)	33.59 (29.47)	37.70 (34.09)
Number of Observations	86	62	148

An inspection of the gross correlation relationships among the separate pairs of critical variables in this model is in order. First, the gross relationship between NYC participation and income per capita per family is positive. The gross correlation coefficients generally fall in a range of from about .45 to .55, with a low of .239 for Negro males and a high of .657 for Mexican Americans. The gross relationship between NYC participation and the probability of graduation from high school is always positive among the sample groups. The gross correlation coefficients generally range from the high .20's to the high .30's, with a low of .201 for white males and a high of .640 for American Indians. Finally, the gross correlation between the number of times a respondent dropped out of high school (exclusive of the time when he ultimately leaves) and income is positive and has a wide range of variation among the sample groups. The gross relation between dropout behavior and graduation is, of course, negative with no zero order correlation coefficient below -.370, with most values in the area of -.20. Thus, the combination of a positive correlation between dropout behavior and probability of graduation (given that all the other crucial bi-variate relationships are positive) results in a net negative effect between income per capita per family and graduation probability. The puzzle in this picture is the positive correlation between income per capita per family and the respondents' dropout behavior. For this sample, as income per capita per family rises during the period when a respondent is in high school, the number of times a respondent drops out of high school also rises. However, it is clearly the case that the dropout variable dominates in this model as Table 39 shows. A one unit increase in the number of times a respondent drops out reduces his probability

of high school graduation by 88.9 percent. To aid the target population, a program must be developed to act more directly on dropout behavior. A policy which acts on the family income variable apparently is not the answer for this target population of the NYC program for the following reasons. We do not know the composition of the contributions to family income by various family members. But if the high school students are contributing to family income, then they may be dropping out of high school in order to earn their contribution, hence, the positive relation between the two variables, family income and dropout behavior. This relation would be consistent with the apparent positive relation between school retention rates and the unemployment rate for teenage groups discussed in the Weisbrod article mentioned in Chapter II.

In short, the NYC program may be having the effect of encouraging labor force participation and improved labor market performance, but this effect may have a negative effect on the high school graduation rate. NYC participants may be acquiring an increased taste for supplementary income which in some cases then leads them to concentrate more on labor market activities than on schooling. Thus, there is no necessary inconsistency between the positive effect of the NYC on post-high school labor market performance and a small negative and often zero effect of the NYC on school performance for the sample groups in this study.

Table 42 indicates that about 31 percent of the NYC participants who dropped out of high school and began working also worked while in high school compared to about 29 percent of the controls who dropped out and began working. The NYC dropouts worked about 14 hours per week while the

control dropouts worked about 10 hours per week while in high school. After dropping out of high school, the NYC dropouts worked about 41 hours per week while the control dropouts worked only about 34 hours per week. Also, of those respondents who ultimately dropped out, about 76 percent of the NYC participants were working while only 67 percent of the control dropouts were working.

Empirical Results--Male and Female Samples. Table 39 also displays the study results for the male and female samples. As can be seen, for males, participation in the NYC leads to a decreased probability of high school graduation of about 5.86 percent. There is no difference between the male NYC and control group on the basis of years of high school completed. Of course, completion of 12 calendar years of school does not guarantee high school graduation. High school credits earned would be a better index of school performance, but the inadequacy of the data on the school record data sheets and in the school records in general precluded the use of this measure.

For males, a one unit increase in the number of times a respondent dropped out of high school (prior to ultimately leaving) reduces the probability of graduation by over 80 percent, and results in the completion of 1.1 years less of schooling. American Indian males are 29.7 percent more likely to graduate from high school than white males and Mexican American males are 10.7 percent more likely to graduate than white males. There is no difference in the probability of graduation between white and Negro males.

There is no difference in the probability of high school graduation between NYC females and their control group counterparts. Females who experience one additional dropout period are 91.2 percent less likely to

graduate from high school. Each additional dropout period results in 1.5 years less of schooling. Thus, dropout experience has a more severe impact on school performance for females than it does for males.

Father's education and income per capita per family have no impact on educational performance for females, while a one year increase in father's education for male respondents results in an increased probability of graduation of .7 of one percent.

Finally, Negro females are about 5.1 percent more likely to graduate than white females while Mexican American females are about 4.1 percent less likely to graduate than are white females. Puerto Rican females are about 17.3 percent more likely to graduate than are white females, but the small Puerto Rican sample size casts uncertainty on this result.

Empirical Results--Ethnic Groups. Table 43 displays the results for separate ethnic and sex-ethnic groups. There were insufficient observations to perform a separate analysis for Puerto Ricans.

White NYC participants are no more likely to graduate from high school than are their control group counterparts. Negro NYC participants are 8.2 percent more likely to graduate from high school than are their control group counterparts. American Indian NYC participants are about 14.6 percent more likely to graduate while Mexican American NYC participants are about 21.2 percent less likely to graduate than are their control group counterparts. Finally, it can be seen that the positive effect of the NYC program on Negroes is due to the fact that Negro female NYC participants are about 12.5 percent more likely to graduate than are their control group counterparts.

TABLE 43

ANALYSIS OF HIGH SCHOOL EDUCATION EXPERIENCE, BY SAMPLE GROUPS, BY SEPARATE REGRESSION MODELS[a]

Sample Group	Probability of Graduation	Years of High School Completed
White n=449[b]	-.0120[c] (.0167)	.10 (.06)
Negro n=197	.0820** (.0293)	.02 (.08)
American Indian n=52	.1464* (.0713)	-.76** (.23)
Mexican American n=74	-.2121** (.0626)	-.11 (.17)
White Male n=217	-.0064 (.0238)	-.01 (.07)
Negro Male n=63	-.0045 (.0162)	.08 (.15)
White Female n=232	-.0132 (.0245)	.18* (.09)
Negro Female n=134	.1251** (.0414)	-.07 (.09)

Notes: (a) A separate regression model was run for each of the sample groups displayed in this table. Each model included all those variables shown for the total sample in Table 37, except for those variables on which the sample group is based. Thus, the Negro female sample group included all those variables for the total sample shown in Table 37 except the sex variable and the regressors for the ethnic origin variable.

(b) n = sample size.

(c) This is the partial regression coefficient. The number in parentheses is the standard error of the coefficient. The statistic for probability of graduation is interpreted as a probability, or, when multiplied by 100 as a percentage. Thus, the white NYC group is about 1.2 percent less likely to graduate from high school compared to its control group counterpart.

TABLE 43 -- Continued

Notes -- Continued

However, the difference is not statistically significant. the statistic for years of high school completed is interpreted as a fraction. Thus, white NYC participants complete .10 more years of high school, on the average, when compared to their control group counterparts. However, the difference is not statistically significant.

* = significant at the .05 level.

** = significant at the .01 level.

The apparent inconsistency in sign between probability of graduation and years of high school completed among these sample groups is probably due to the fact that very small increases (or decreases) in calendar years of school attendance do not necessarily imply an increased (or decreased) graduation rate. As mentioned above, earned credits would have been a better variable than years of schooling completed but imperfect school records precluded the use of this variable.

Empirical Results by Program Component. Table 44 displays the effects of the NYC program by program component. Each of the partial regression coefficients displayed in the table represents the results of a separate regression model. The results of 60 different models are shown, representing various combinations of NYC program and sex or sex-ethnic groups.

For the in-school only participants of the total sample, NYC participants are 2.89 percent (.0289 x 100 = 2.89%) less likely to graduate than are their control group counterparts. This difference is significant only at the .10 level. There is no difference in terms of years of school completed.

For the summer only participants of the total sample, there is no difference in the probability of graduation between the NYC and control group but NYC participants complete about .18 of one year less school. The NYC participants of the total sample who engaged in both an in-school and a summer program component fare no better in educational performance than do their respective control group members.

For the in-school only program, it can be seen that it is the negative experience of white males, who are 4.2 percent less likely to

TABLE 44

ANALYSIS OF HIGH SCHOOL EDUCATION EXPERIENCE, BY SAMPLE GROUPS, FOR SEPARATE NYC PROGRAM COMPONENTS, BY SEPARATE REGRESSION MODELS[a]

Sample Group[c]	In-School Only		Summer Only		Both In-School and Summer	
	Probability of Graduation	Years of High School Completed	Probability of Graduation	Years of High School Completed	Probability of Graduation	Years of High School Completed
Total	-.0289[b+]	-.04	-.0093	-.18*	-.0059	.07
	(.0166)	(.06)	(.0244)	(.08)	(.0230)	(.07)
	510		358		408	
Male	-.0601*	-.13*	-.0963*	-.28**	-.0561*	-.00
	(.0240)	(.06)	(.0436)	(.09)	(.0228)	(.04)
	222		168		195	
Female	-.0008	-.08	-.0283	-.26*	.0651+	.11
	(.0221)	(.08)	(.0218)	(.12)	(.0374)	(.12)
	288		190		213	
White	-.0437*	.10	-.0222	-.02	.0157	.12
	(.0187)	(.07)	(.0280)	(.09)	(.0263)	(.09)
	298		.99		239	
Negro	.0193	-.01	.0812*	.10	.1498**	.16
	(.0335)	(.10)	(.0339)	(.13)	(.0502)	(.10)
	132		88		113	
Mexican American	.0714	.04	-.2304**	-.22	-.3706**	-.29
	(.0818)	(.08)	(.0613)	(.20)	(.1004)	(.36)
	46		37		45	

TABLE 4 -- Continued

Sample Group[c]	In-School Only: Probability of Graduation	In-School Only: Years of High School Completed	Summer Only: Probability of Graduation	Summer Only: Years of High School Completed	Both In-School and Summer: Probability of Graduation	Both In-School and Summer: Years of High School Completed
White Male	-.0423*	-.11+	-.0205	-.17	.0294	.02
	(.0206)	(.06)	(.0498)	(.13)	(.0194)	(.05)
	143		98		123	
Negro Male	-.0105	.04	-.0009	-.01	.0027	-.00
	(.0246)	(.22)	(.0493)	(.02)	(.0312)	(.11)
	39		32		43	
White Female	-.0431	.08	-.0563	.15	.0852[d]	.13
	(.0305)	(.11)	(.0357)	(.15)	(.0516)	(.15)
	155		101		116	
Negro Female	-.0308	-.02	.1134*	.17	.1599*	.09
	(.0467)	(.11)	(.0462)	(.16)	(.0722)	(.13)
	93		56		70	

Notes: (a) A separate regression model was run for each of the sample groups displayed in this table. Sixty separate regression models are represented. Each model included all those variables shown in Table 37 except for those variables on which the sample group is based. Thus, for those Negro females who participated only as in-school NYC enrollees, the regression model included all variables in Table 37 except the sex variable and the regressors for the ethnic origin variable.

(b) The statistics are, in descending order, the partial regression coefficient, the standard error of the coefficient, and the sample size. For a project having in-school and summer components, the specific control group served as a control group for the separate in-school, summer, or combined in-school/summer participants.

TABLE 44 -- Continued

Notes -- Continued

(c) There were insufficient observations to perform analysis on the American Indian sub-sample and the Puerto Rican sub-sample.

(d) Significant at the .1018 level.

+ = significant at the .10 level.

* = significant at the .05 level.

** = significant at the .01 level.

graduate, which leads to the negative effect of the in-school only program for white and males.

In contrast, for summer only program, Negro females are about 11.3 percent more likely to graduate than are their respective control counterparts. This favorable effect of Negro females accounts for the fact that NYC Negro participants as a whole are about 8.1 percent more likely to graduate from high school than are their control counterparts. Finally, Mexican Americans who participate in a summer only program are about 23.0 percent less likely to graduate than are their respective control counterparts.

Negro NYC participants who engage in both an in-school and a summer NYC component are about 15 percent more likely to graduate than are their respective control group counterparts. This favorable effect on Negroes is due to the fact that Negro female NYC participants are about 16 percent more likely to graduate than are their respective control counterparts. Mexican Americans engaging in this combined program are about 37.1 percent less likely to graduate than are their control group counterparts.

Choice Among Program Alternatives. It is difficult to say which of the three types of NYC program structures is more desirable. They all have either a negative or zero effect for the total sample. They all effect males negatively, while only the combined in-school summer program has a positive effect at a .10 level of significance for females. Negroes, especially female Negroes, tend to benefit or at least have no statistically significant negative effect. Mexican Americans either experience a zero effect or a negative effect due to NYC program participation. The same is true for whites.

There is no way to judge social priorities among these different sex and ethnic groups. Therefore, we cannot say which of the three components is more (or least) desirable from the standpoint of fulfilling its legislated goal.

In short, it seems clear that while the hypothesized premise on which the NYC program was based was not an unreasonable one on the surface, the behavior of the target population was such that the program was valuable mainly for its short term income and labor market benefits and not as a means of increasing long-run education investment.

For these low income groups, the immediate income gains from the labor market experience are of greater value than are the longer term labor market gains to be had from increased education. Thus, the NYC participants reversed the order of NYC program priorities with respect to the relative emphasis imposed on the program by Congress. The result was an increase in labor market benefits but a decrease or zero effect on school performance.

C. College Attendance and Post-Secondary Education

Total Sample. A total sample of 659 high school graduates is available to analyze the effect of the NYC program on the probability of college attendance, Z_3, and other post-secondary education, given high school graduation, Z_4.

Even though the NYC program has had no net effect on increasing the graduation rate from high school, it has had the effect of increasing the earnings of the NYC participants after they leave high school. These

higher earnings, in turn, can increase the ability of the NYC high school graduate to afford additional education after high school. Evidence exists also that the income elasticity of demand for higher education--the percentage rate at which the demand for education changes given a one percent change in income--is greater than one. That is, a one percent increase in income results in a greater than one percent increase in the demand for higher education. One estimate puts this elasticity coefficient at 1.20; a one percent increase in income leads to a 1.2 percent increase in the demand for higher education. However, the estimate may be low since the data on which the study was based excluded two-year college enrollments--a rapidly expanding educational sector.[5] Thus, if the NYC results in increased earnings, then, other things equal, it can result in an increased impact on the probability of acquiring post-high school education.

The model used to investigate this issue is the same as that used to investigate the impact of the NYC on the probability of high school graduation. One should refer to equation (1) of this chapter for the model specification, therefore.

One point to make is that the higher earnings which can make the additional education possible are implicit in the NYC status variable.

The results are shown in Table 45 and Table 47. For the total sample, the NYC participant is, on the average, 12.55 percent more likely to attend some type of college than is his control group counterpart.

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[5]See Robert Campbell and B. N. Siegel, "Demand for Higher Education in the United States," American Economic Review, June, 1967, p. 490.

TABLE 45

ANALYSIS OF POST-HIGH SCHOOL EDUCATIONAL EXPERIENCE OF HIGH SCHOOL GRADUATES, BY TOTAL SAMPLE AND SEX

Variable	Total Sample		Male		Female	
	Probability of Attending College	Probability of Post-High School Training	Probability of Attending College	Probability of Post-High School Training	Probability of Attending College	Probability of Post-High School Training
Weight Factor	.3864[a]	.3977	1.1865*	.6179	.0813	.3572
	(.3300)	(.2772)	(.5452)	(.4760)	(.4245)	(.3450)
Status Control[b] NYC	.1255**	.0650+	.1134+	.1529**	.0830	-.0143
	(.0418)	(.0351)	(.0644)	(.0562)	(.5471)	(.0445)
Age	-.0216	-.0220	-.0535*	-.0284	-.0034	-.0160
	(.0162)	(.0136)	(.0262)	(.0229)	(.0208)	(.0169)
Income per Capita per Family	.0030	.0045	.0176	.0012	-.0036	.0041
	(.0062)	(.0052)	(.0118)	(.0103)	(.0071)	(.0058)
Farm Residence	.2356**	-.0233	.2520*	-.0246	.2900**	.0608
	(.0640)	(.0537)	(.1056)	(.0922)	(.0834)	(.0677)
Number of Times Respondent Dropped High School	-.0974	.0687	-.0036	.0706	-.2082	-.0819
	(.0850)	(.0714)	(.1197)	(.1045)	(.1284)	(.1043)
Father's Education	.0137**	.0056	.0124	.0089	.0062	.0000
	(.0052)	(.0044)	(.0078)	(.0068)	(.0072)	(.0058)

TABLE 45 -- Continued

Variable	Total Sample		Male		Female	
	Probability of Attending College	Probability of Post-High School Training	Probability of Attending College	Probability of Post-High School Training	Probability of Attending College	Probability of Post-High School Training
Male	.1724** (.0356)	.1150** (.0299)	---[c]	---[c]	---[c]	---[c]
Ethnic Origin						
White						
Negro	.2691** I.0528)	.0318 (.0443)	.4434** (.0938)	-.0935 (.0819)	.1466* (.0625)	.0978+ (.0508)
American Indian	.0524 (.0753)	.2108** (.0633)	.1643 (.1254)	.3393** (.1095)	-.0714 (.0998)	.0553 (.0811)
Mexican American	.0548 (.0649)	.0540 (.0545)	.1802* (.0909)	.0899 (.0793)	-.1254 (.0984)	-.0523 (.0800)
Puerto Rican	-.1485 (.2506)	-.1341 (.2105)	---[c]	---[c]	-.2933 (.2418)	-.1167 (.1965)
Discriminant Function	.0001 (.0007)	.0004 (.0006)	-.0020+ (.0010)	-.0001 (.0010)	.0020* (.0010)	.0008 (.0008)
Number of Observations	659	659	294	294	365	365
S. E. E.	.3863	.3244	.4001	.3493	.3658	.2973
$\bar{R}^2$	.3625	.2173	.4519	.3203	.3135	.1391
F-Ratio	28.25	13.80	19.37	11.07	13.43	4.75

TABLE 45 -- Continued

Notes: (a) This is the partial regression coefficient. The number in parentheses is the standard error of the coefficient.

(b) This regressor enters the intercept term. The remaining regressors of this variable set are interpreted as deviations from this regressor. The regression coefficients are interpreted as probabilities, or when multiplied by 100, as percentages. Thus, the average NYC participant is 12.55 percent more likely to attend some type of college than is the average member of the control group.

(c) No observations for this regressor.

S. E. E. is the standard error of the estimate.

$\bar{R}^2$ is the coefficient of determination adjusted for degrees of freedom.

+ = significant at the .10 level.

* = significant at the .05 level.

** = significant at the .01 level.

This difference is significant at the .01 level. In addition, the NYC participant is 6.5 percent more likely to attend some type of post-secondary education other than college, when compared to his control group counterpart. This difference, however, is significant at only the .10 level of statistical significance.

Table 46 shows the relationship between total post-high school before tax earnings and the proportion of those NYC participants and control respondents who attended some type of two or four year college or university. Several things stand out in this table. First, for all earnings intervals above $4,000 the percentage of NYC participants attending college always exceeds the percentage of controls who attend college. So, at higher earnings levels, NYC respondents have higher propensity to attend college. This effect may be due to the NYC program.

A more important contrast is in the differences in percentage points between earnings intervals of NYC and control group members who attend college. Note first, however, that there is little difference in the percent of those NYC participants in earnings intervals above $4,000 who do or do not attend college. Twenty-four point nine percent of the NYC participants who do not attend college lie in earnings intervals above $4,000, while 23.5 percent of those NYC participants who attend college lie above this range. Thus, there is little difference in earnings among those NYC participants who do and do not attend college. This is not true of the control group. Thirty-three point nine percent of those control group members who do not attend college lie in earnings intervals above $4,000, while only 22.2 percent of those controls who attend college earn above

TABLE 46

RELATIONSHIP BETWEEN TOTAL EARNINGS AFTER LEAVING HIGH SCHOOL AND COLLEGE ATTENDANCE, FOR THE NEIGHBORHOOD YOUTH CORPS AND THE CONTROL SAMPLES, UNWEIGHTED

Earnings[a] Interval	Control			NYC		
	Non-College	College	% College by Earnings Interval	Non-College	College	% College by Earnings Intervals
0-500	47	15	24.2	66	34	34.0
501-1000	9	8	47.1	27	18	40.0
1001-2000	31	16	34.0	34	41	54.7
2001-3000	15	17	53.1	29	23	44.2
3001-4000	21	10	32.2	25	11	30.6
4001-5000	23	9	28.1	16	13	44.8
5001-6000	15	1	6.3	13	10	43.5
6001-7000	9	3	25.0	17	10	37.0
7001-8000	16	6	27.3	14	6	30.0
Total	186	85		241	166	

Notes: (a) These are total post-high school before tax earnings.

$4,000. To continue, the difference in percent attending college between income classes is the relevant comparison. About 34.9 percent of the control group members earning $4,000 or less attend college, in contrast to only 23.2 percent of the controls attending college who earn above $4,000. However, there is little difference in the percent of NYC participants who attend college when these two earnings groups are contrasted; 41.2 percent of the NYC participants who earn $4,000 or less attend college while 39.3 percent of the NYC participants who earn above $4,000 attend college. Thus, the net effect is, that, in contrast to the control group, a larger proportion of the NYC participants attend college in the higher income ranges. There is a drop of 11.7 percent in college attendance between the two earnings intervals for the control group (34.9-23.2), while there is only a drop of 1.9 percent in college attendance (41.2-39.3) between the two income classes for the NYC participants.

For the total sample, there is no difference in the probability of college attendance with respect to age. Income per capita per family while the respondent was in high school also has no effect on the probability of college attendance. The effect of this variable, however, may be dominated by the variable for father's education. A one year increase in father's education leads to a 1.4 percent increase in the probability of college attendance. Those respondents whose families made their living on a farm while the respondents were in high school are about 24 percent more likely to attend some type of college than are their respective control group members. The reasons for this are not entirely clear. Males are about 17 percent more likely to attend some type of

college than are females, which is a reasonable result. The number of times a respondent dropped out of high school is an index of his behavior while in high school. However, this variable has no statistically significant effect on the probability of college attendance. The fact that a persons does manage to graduate apparently dominates this variable so that the fact of graduation is a better index of long run educational behavior than is the high school dropout behavior of persons who ultimately do graduate from high school.

Negroes are about 27 percent more likely to attend college than are the whites in this study sample. However, there is no statistically significant difference between whites and American Indians, or Mexican Americans or Puerto Ricans.

Finally, the discriminant function has the desired zero effect, though this is due, as can be seen, to a counteracting negative effect for males and positive effect for females.

Only two additional variables are significant with respect to the probability of post-secondary education other than college. Males are 11.5 percent more likely to engage in post-secondary education than are females. American Indians are about 21 percent more likely to engage in this type of education than are whites.

Male and Female Samples. Table 45 also displays the analysis with respect to separate sex symbols. Male NYC participants are about 11 percent more likely to attend college than are their control group counterparts. However, this difference is significant only at the .10 level. Female NYC participants are no more likely to attend college than are their control group counterparts.

Male NYC participants are about 15 percent more likely to engage in post-secondary education than college while female NYC participants are no more likely to do so than are their control group counterparts.

Negro males are 44 percent more likely and Negro females about 15 percent more likely to attend college than are white males and white females, respectively.

Ethnic Group Comparisons. The effect of the NYC program on separate ethnic groups is shown in Table 47. Each of the statistics in this table is the result of a separate regression model. Each regression model is of the same form as that shown in equation (1) above except that the variables upon which the ethnic group is based are omitted from the model. Thus, for the Negro female group, the probability of college attendance, Z_3, is expressed as a function of the weight factor, X_1; respondent status, X_2; age, X_3; income per capita per family, X_4; place of residence during school, X_5; number of times the respondent has dropped out of high school, X_6; father's education, X_7; and the discriminant function, X_{13}. As shown in Table 44, only white NYC participants and Mexican American NYC participants are more likely to attend college than are their respective control group counterparts. Only white male NYC participants are more likely to engage in more post-secondary education vis-a-vis their control group counterparts. However, neither Negro nor American Indian NYC participants experience an increased probability of college attendance vis-a-vis their respective control group counterparts.

TABLE 47

ANALYSIS OF POST-HIGH SCHOOL EDUCATION EXPERIENCE OF HIGH SCHOOL GRADUATES, BY SAMPLE GROUPS, BY SEPARATE REGRESSION MODELS[a]

Sample Group	Probability of Attending College	Probability of Post-High School Training
White n=381[b]	.1036[c*] (.0504)	.0699[d] (.0431)
Negro n-174	.0822 (.0844)	-.0302 (.0685)
American Indian n=38	-.6169 (.8689)	-.2043 (.8576)
Mexican American n=59	.4937** (.1732)	.1469 (.1330)
White Male n=184	.0404 (.0736)	.1501* (.0669)
Negro Male n=55	.0348 (.1458)	.1138 (.0996)
White Female n=197	.1057 (.0694)	-.0075 (.0569)
Negro Female n=119	.1230 (.1058)	-.0611 (.0911)

Notes: (a) A separate regression model was run for each of the sample groups displayed in this table. Each model included all those variables shown in Table 37 except for those variables on which the sample group is based. Thus, the Negro Female sample group includes all those variables in Table 37 except the sex variable and the regressors for the ethnic origin variable.

(b) n = sample size.

TABLE 47 -- Continued

Notes -- Continued

(c) This is the partial regression coefficient. The number in parentheses is the standard error of the coefficient. The statistic is interpreted as a probability, or, when multiplied by 100, a percent. Thus, the white NYC group is 10.36 percent more likely to go to some type of college than its respective control counterpart.

(d) Significant at the .1056

* = significant at the .05 level.

** = significant at the .01 level.

D. Educational Benefits as a Function of the Length of Stay in the NYC

In Section B, the analyses show that the NYC program does not have any positive effect on the probability of high school graduation and the number of grades completed in high school due to the NYC program. As we discussed in Section B, these results may be due to the misspecification of the dummy variable for the NYC program status. In fact, we not only should dichotomize the respondent status, but we should also give a proper weight to the NYC participants in terms of each respondent's length of stay in the NYC program. This section will present the educational benefits in terms of the four indexes of educational performance stated at the beginning of this chapter, each as a function of the length of stay in the NYC program and the basic independent variables excluding the dummy variable, X_2, stated in equation (1) of this chapter. Table 48 presents the regression results for these four indexes of educational performance.

The variable length of stay in the NYC program, X_{20}, has a linear form in the equation for the probability of graduation and years of high school completed. The additional squared term of X_{20} is tried in both these equations but the result was a lack of statistical significance for both X_{20} and X_{20}^2. Thus, only the linear form of X_{20} is used. This linear variable coefficient is statistically significant at a level of .026 and .078 for the probability of graduation and years of high school completed, respectively. The positive and statistically significant effects of variable X_{20} on the probability of graduation and on years of high school completed indicate that the length of stay in the NYC program is a more meaningful and proper measurement for the status of the respondents than the zero-one dummy variable classification.

TABLE 48

ANALYSIS OF EDUCATIONAL BENEFITS
BASED ON THE LENGTH OF ENROLLMENT IN THE NYC

Variable	Probability of Graduation	Years of High School Completed	Probability of Attending College	Probability of Post-High School Training
Weight Factor	.6459**	107.1943**	.4079	.4856+
	(.1849)	(3.904)	(.3359)	(.2819)
Months in NYC	.0023*	.006+	.0148*	-.0046
	(.0010)	(.003)	(.0063)	(.0053)
Months in NYC, squared	----[a]	----[a]	-.000514*	.000154
			(.000238)	(.000120)
Age	.0148*	.056**	-.0223	-.0252+
	(.0058)	(.019)	(.0164)	(.0138)
Income per Capita per Family	-.0031	-.010	.0031	.0017
	(.0020)	(.006)	(.0061)	(.0052)
Farm Residence	-.0240	.170	.2290**	-.0352
	(.0232)	(.075)	(.0643)	(.0540)
Number of Times Respondent Dropped High School	-.8846**	-1.323**	-.1014	.0665
	(.1397)	(.045)	(.0853)	(.0716)
Father's Education	.0043*	-.004	.0144**	.0059
	(.0019)	(.006)	(.0052)	(.0044)
Male	.0334**	.073+	.1696**	.1027**
	(.0128)	(.042)	(.0358)	(.0301)
Ethnic Origin				
White[b]				
Negro	.0314	.092	.2649**	.0293
	(.0205)	(.067)	(.0529)	(.0444)
American Indian	.0155	-.101	.0713	.2305**
	(.0226)	(.074)	(.0750)	(.0630)
Mexican American	.0252	.256**	.0724	.0665
	(.0215)	(.070)	(.0648)	(.0544)

TABLE 48 -- Continued

Variable	Probability of Graduation	Years of High School Completed	Probability of Attending College	Probability of Post-High School Training
Puerto Rican	.0865 (.0906)	-.386 (.295)	-.1693 (.2517)	-.0014 (.2113)
Discriminant Function	.0089 (.0239)	.311** (.078)	.0450 (.0694)	.1214* (.0582)
Number of Observations	780	780	659	659
S. E. E.	.1625	5.288	.3876	.3254
$\bar{R}^2$	.9618	.9978	.3591	.2141
F-Ratio	1,485.66	26,935.64	25.81	12.55

Notes: (a) There are no observations for this regressor since the model is of a linear form for X_{20}, number of months in the NYC.

(b) This regressor enters the intercept term. The other regressors in the variable set are interpreted as deviations from it. Thus, Negroes are 3.15 percentage points more likely to graduate from high school than are whites. However, the difference is not statistically significant.

S. E. E. is the standard error of the estimate.

$\bar{R}^2$ is the coefficient of determination adjusted for degrees of freedom.

+ = significant at the .10 level.

* = significant at the .05 level.

** = significant at the .01 level.

The estimated coefficients of variable X_{20} suggest that as a NYC participant remains in the program for one additional month, his probability of graduation increases by 0.23 of one percent. Also, as the NYC participant stays in the program one month longer, he will tend to complete an additional .006 of a school year (assuming a 36 week school year) or about .22 percent of a one week--a day or two. These findings suggest that the NYC program after all has a positive effect on the school performance of the NYC participants.

The program will be effective on the educational benefits only if the participants do not drop out of the NYC program after a short period of time. It is, then, the continued money incentive of the NYC program which results in positive educational benefits by encouraging the students to stay in school and gain added earnings.

It should be noted that income per capita per family still has a negative effect on educational performance, but is no longer statistically significant as it is as shown in Table 39 of the total sample estimation. The justification of the negative effect of the income variable on educational performance is discussed in detail in Section B of this chapter.

The other two school performance equations are the probability of attending college and the probability of post-high school training. The results are also presented in Table 48. The variable for length of stay in the NYC program, X_{20}, has both a linear and a squared term in these two equations. Bother terms are statistically significant at a .025 level in the college attendance equation. The sign of X_{20} is consistent with the sign of the NYC status variable, X_2, in Table 37 of the total sample

regression. In the total sample, at the mean value for months enrolled at the NYC, the NYC participant is on the average 1.27 percent more likely to attend college than is his control group counterpart for each additional month the NYC participant stays in the program. The length of stay in the NYC program which will maximize the probability of attending college can be estimated by the differentiation technique as shown in Chapter V. The calculation shows that the probability of college attendance will continue to be enhanced up to about a 27 month stay in the NYC program. Of course, This value lies beyond the relevant range of data. Therefore, the main implication is only that the likelihood of college attendance increases with an increased stay in the NYC program.

The coefficient of X_{20} has a negative sign and there is a positive sign for X_{20}^2 in the post-high school training equation. Both variables are not statistically significant in either the linear or the non-linear expression. Therefore, there is no effect on post-high school training with respect to the length of stay in the NYC program.

E. Summary and Conclusions

One of the major findings of this analysis is that the premise upon which the NYC study is based may be an incorrect one. There is a gross positive effect between educational performance and income per capita per family. However, when this variable is considered in conjunction with other variables, in almost every case the effect of the income variable on high school performance is zero or negative. Therefore, it may be the case that programs may have to be devised to take other approaches toward changing the propensity to drop out. The income variable may not be the most important variable affecting dropout behavior.

Second, when NYC attendance is treated as a dummy variable, the equal weight of long-term and short-term enrollees in this specification generally results in no net impact of the NYC on the probability of high school graduation or in years of high school completed. However, converting NYC experience to a scaled variable which weights enrollment as a function of length of stay in the program, positive but very small benefits to the program result.

Third, the NYC program has a greater impact on post-high school educational performance than it does on high school performance. NYC participants have a higher likelihood of attending some type of college or post-secondary education other than college.

CHAPTER VII

INVESTMENT ANALYSIS OF THE NEIGHBORHOOD YOUTH CORPS

A. Introduction

This chapter analyzes the Neighborhood Youth Corps as an investment in human capital in terms of its value to society, the individual and the federal government. It utilizes the analysis of marginal and average cost estimates in Chapter IV, the monetary measures of economic benefit in Chapter V and the non-monetary measures of schooling-related benefits in Chapter VI. Thus, cost-benefit analysis based on monetary measures of cost and benefit will be presented as well as cost-effectiveness analysis based on monetary costs but on non-monetary benefits.

Average cost-benefit (cost-effectiveness) and marginal cost-benefit (cost-effectiveness) analysis will be performed. As stated in Chapter II, this investment analysis must be applied in two contexts, depending on the economic decision to be made. The first decision is one of determining whether the costs and returns to the program justify its continued operation. For the continued operation of the NYC program to be justified, long run average benefits should equal or exceed long run average costs. In present value terms, if, at an acceptable discount rate, the present value of average benefits is equal to or greater than the present value of average total costs, then the continuation of the program is justified.

Next, there is the question of the appropriate allocation of social resources or federal government resources between the NYC

program and all other competing social or governmental programs. In order to make this allocation decision, marginal costs (the extra cost of enrolling one additional NYC participant) must be compared with the marginal (extra) benefits accruing to that additional NYC participant. If the marginal cost-benefit ratio of the NYC program is greater than that of some competing program which is comparable as to objectives and target population, then resources should be shifted from the competing program to the NYC program, other things being equal.

Plan of Chapter. This chapter first analyzes the monetary costs and benefits of the NYC from the standpoint of society. Next follows a monetary analysis based on the private standpoint. Then follows the analysis of federal government monetary costs and benefits. The final section deals with the cost-effectiveness analysis of school related benefits.

B. Social Monetary Costs and Benefits

The analysis of social costs and benefits is performed for the total sample of in-school and summer NYC projects. Separate analysis is performed for males, females, whites, Negroes, and white and Negro males and females. Finally, there is an analysis of the in-school only, summer only and combined in-school and summer program alternatives. The basic data for estimating social rates of return and net present values are shown in Appendix Table 18V.

Average Social Rates of Return.[1] Table 49 shows the estimated average social rates of return. In order to test the sensitivity of the rates of return to changing assumptions, these rates of return are estimated for two different concepts of cost -- total cost (federal plus sponsor) and federal cost. Also, two different benefit periods are used. First, the assumption is made that benefits accrue only during the post-high school months (m) in which the NYC participant was eligible to be a member of the civilian labor force. However, benefits to the NYC program may extend beyond the average period of labor force participation in this study. The choice of a period by which to extend the benefit stream is largely arbitrary. One method of extension which is a conservative approach is to extend the period of eligibility to be in the civilian labor force (the benefit period) by one standard deviation (s) to the mean period (m). In most cases, this doubles the length of the benefit period.

As can be seen in Table 49 the estimated monetary rates of return are quite high. Thus, even if there is cost underestimation or benefit overestimation, this error would have to be large to reduce the rates of return to unacceptably low levels, say, less than ten per cent. The average rate of return to the total sample based on the concept of

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[1] These estimates are based on average costs for average project size. See Chapter IV. Average benefit measures are derived from the regression models according to a technique developed by J. Lansing and W. Ladd of the Survey Research Center, University of Michigan, Ann Arbor, Michigan, in a mimeographed paper entitled "An Example of the Conversion of Regression Coefficients into Deviation about the Grand Mean." Dated October, 1962.

TABLE 49

ESTIMATED SOCIAL RATES OF RETURN

Sample Group	Average				Marginal			
	Total[a]		Federal[b]		Total		Federal	
	m[c]	m+s[d]	m	m+s	m	m+s	m	m+s
Total Group	90.1*	106.9*	114.8*	128.0*	44.6*	70.3*	55.9*	79.2*
Male	137.0+	155.6+	166.0+	181.0+	86.6+	113.5+	100.2+	124.7+
Female	37.8	61.0	48.8	77.5	----[e]	-----[e]	6.7	37.8
White	109.6*	119.8*	134.3*	142.1*	59.8*	79.3*	71.2*	88.7*
Negro	170.2**	188.5**	201.1**	216.2**	125.5**	149.8**	140.3**	162.5**
White Male	126.6	144.1	154.7	168.6	75.4	101.2	88.6	111.8
Negro Male	144.6+	172.2+	176.5+	199.9+	100.8+	135.1+	116.3+	148.1+
White Female	25.8	45.5	44.9	61.0	----[e]	-----[e]	-----[e]	-----[e]
Negro Female	137.2+	156.7+	166.7+	182.8+	93.7+	119.8+	107.8+	131.5+

TABLE 49 -- Continued

Notes: (a) Total = federal plus sponsor share of costs.

(b) Federal = federal share of costs.

(c) m = the average number of months the NYC participant was eligible to be in the civilian labor force.

(d) m+s = m plus one standard deviation of m.

(e) A negative rate of return is implied.

\+ = significant at the .10 level.

* = significant at the .05 level.

** = significant at the .01 level.

total (federal plus sponsor) cost and an "m" benefit period of 19 months is 90.1 per cent. Extending the benefit period to a total of 39 months (m + s) only increases the average social rate of return to 106.9 per cent.

Among those rates of return which are statistically significant at at least a .10 level, the Negro sub-sample gains the highest rate of return, 170.2 per cent. However, this estimate is qualified by the assumption that costs to the Negro sub-sample, as with all of the sub-samples shown, are equal to the costs to the total sample. Specific social costs to the separate sub-samples were not obtainable in this study and, thus, there is an unknown amount of bias in these rates of return estimates for the sub-groups. Next, this statement must be qualified due to the fact that the benefit periods among the sample groups are not uniform. Note, again, though, that doubling the benefit period does not double the rate of return, so that, in general, the ordinal ranking of these rates would not be affected much by a standardization of benefit periods.

The different set of assumptions above display the range of estimates. Rates of return to the total group range from 90.1 per cent to 128.0 per cent -- a fluctuation of about 30 percentage points. The effect of changing the cost concept is greater than the effect of changing the length of the benefit stream.

Finally, when so many estimates are provided, the analyst has a duty to indicate which measures he would put the most confidence in. For two reasons, we feel that the federal cost concept and the "m"

benefit period represent the most correct measure of program performance. First, as indicated in Chapters II and IV, federal costs are probably a closer approximation to actual social economic costs even though they may understate these costs somewhat. However, it seems clear that costs based on the combined federal and sponsor share overstate actual social costs considerably more and create a proportionately larger bias. Second, we feel that whenever the data allow, it is best not to extrapolate beyond the range of observed data; in this case, the benefit stream becomes the average period of months the NYC participant is eligible to be in the civilian labor force after finally leaving high school.

Marginal Social Rates of Return.[2] Table 49 also displays marginal social rates of return. Due to the fact that estimated marginal costs are higher than estimated average costs while average benefits are higher than marginal benefits, the marginal rates of return are lower than the average rates of return. Again, however, the marginal rates are still very high.

We argue above that the most correct rate of return is that based on the federal concept of cost and a benefit period equal to "m", the average number of months the NYC sample is eligible to be a member of

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[2]Strictly speaking, the marginal benefit estimated in this study is the difference between the average benefit of the NYC group and the average benefit of the respective control group. However, if one assumes that a shift of one person from the control to the experimental group results in an additional increment of benefit as measured by the partial regression coefficient of the status variable in the benefit equations, this difference can be considered to be a marginal benefit measure.

the civilian labor force. Under these assumptions, the marginal social rate of return to the total sample is 55.9 per cent. This marginal rate is roughly one half of the average rate of return, 114.8 per cent, estimated under the same assumptions. The rate of return to the Negro sub-sample is 140.3 per cent for federal share of cost and an "m" benefit period. The marginal social rates of return are highest for the Negro sub-sample and effectively zero for the female and the white female sample, as well as for white males, since the estimated values are not statistically different from zero. Again, the rates of return which are statistically significant are quite high, and thus, would easily remain above ten per cent even with considerable underestimation of cost or overestimation of benefit.

Average Social Net Present Values. Since an estimated rate of return may be very large but be the result of an absolutely small investment and return, the estimation of net present values is useful to provide a measure of the absolute size of monetary benefits for the social investment context. To make these estimates, a measure is required of the social opportunity cost rate of capital. Such estimated measures of the opportunity cost rate vary widely. Agencies of the federal government have used rates which vary from zero to 100 per cent.[3] The rate used in this analysis is ten per cent.

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[3]See, for instance, U.S. Congress, Joint Economic Committee, Subcommittee on Economy in Government, Hearings, Interest Rate Guidelines in Federal Decisionmaking, 90th Congress, 2nd Session, January 24, 1968.

Estimates of the social opportunity cost rate generally fall in a range of from six to ten per cent. The higher figure is used in keeping with a more conservative approach in estimating the present monetary investment benefits. The benefit stream is again based first on the average length of time the NYC participant is eligible to participate in the civilian labor force. Next, this benefit range is extended by one standard deviation of the above period. Table 50 shows the estimated results.

Again, the argument is that present values based on federal costs and the "m" benefit period are the most appropriate. Given this, the average net present value accruing to a member of the total NYC sample is $704. The average present value accruing to the Negro NYC sub-sample is $1,426 per person. However, it is just $1,010 for the average member of the white NYC sub-sample.

The population from which the study sample is drawn numbers 333,548. Since the present value of average net benefits is $704 per participant, total net monetary social benefits are about $234,818,000 for the operation of the NYC program during the 1965-66 and 1966-67 fiscal years. If one argues that non-response bias creates an upward bias in these estimates, then the above benefits are higher than the true level of benefits. However, the very magnitude of these benefits suggests that the NYC program still pays off in net monetary terms.

If the NYC program simply had an average effect of zero on the non-response NYC group, then the undiscounted average benefit per NYC participant would be lower but it would still be positive.

TABLE 50

ESTIMATED SOCIAL NET PRESENT VALUES, IN DOLLARS
AT A TEN PER CENT DISCOUNT RATE

Sample Group	Average				Marginal			
	Total[a]		Federal[b]		Total		Federal	
	m[c]	m+s[d]	m	m+s	m	m+s	m	m+s
Total Sample	613*	1,510*	704*	1,601*	243*	870*	300*	926*
Male	997+	2,396+	1,088+	2,487+	547+	1,560+	604+	1,617+
Female	176	665	267	756	----[e]	----[e]	----[e]	----[e]
White	918*	1,722*	1,010*	1,813*	394*	1,013*	450*	1,070*
Negro	1,335**	2,895**	1,426**	2,987**	906**	2,139**	963**	2,196**
White Male	912	2,060	1,003	2,152	462	1,272	519	1,329
Negro Male	878+	2,043+	969+	2,134+	567+	1,509+	624+	1,566+
White Female	102	398	194	489	----[e]	----[e]	----[e]	----[e]
Negro Female	948+	2,060+	1,039+	2,151+	591+	1,462+	648+	1,518+

Notes: (a) Total = federal plus sponsor share of costs.

(b) Federal = federal share of costs.

(c) m = the average number of months the NYC participant was eligible to be in the civilian labor force.

(d) m+s = m plus one standard deviation of m.

(e) A negative net present value is implied.

\+ = significant at the .10 level.

* = significant at the .05 level.

** = significant at the .01 level.

Marginal Social Net Present Values. Table 50 also displays marginal social net present values -- the increase in total benefit due to the addition of one more NYC participant to the program. Given federal cost concepts and an "m" benefit period, the marginal social net present value to the total sample is about $300 when one adds one additional participant to the NYC program. Thus, at a ten per cent discount rate, this marginal value is less than half of the average value stated above. The marginal return to whites is $450 while it is $963 to Negroes, or, about twice as great. The marginal return to Negro males and Negro females is almost equal, $624 and $648, respectively. The marginal social return to females, white males and white females is not significantly different from zero.

The total marginal benefits to the total sample amount to about $100,000,000 (333,548 x $300) for the projects in operation in 1965-66 and 1966-67 fiscal years.

Economic Benefits to Program Alternatives. Monetary benefits to the three NYC program alternatives are displayed in Table 51 . The data on which these estimations are based are shown in Appendix Table 20-V.

Since social benefits to the NYC participant in a summer only program are not statistically significant from zero, the net investment benefits to this program alternative are not significantly different from zero. In fact, with zero benefits and positive costs, the actual net present value is negative, and equal to the discounted sum of the summer program costs.

TABLE 51

INVESTMENT BENEFITS TO NYC PROGRAM ALTERNATIVES

Program Alternative	Average		Marginal	
	Rate of Return	Present Value	Rate of Return	Present Value
In-School Participant Only	132.6%*	$670*	83.5%*	$384*
Summer Participant Only	41.0%	$172	38.4%	$126
Both an In-School and Summer Participant	138.2%+	$542+	134.4%+	$462+

Notes: + = significant at the .10 level.

* = significant at the .05 level.

The social average rate of return to the in-school only program is 132.6 per cent. The net present value to the average NYC participant of an in-school only program is $670 at a ten per cent rate of discount. As with the previous estimates, the social marginal rate of return and net present value are lower than the social average estimations.

The benefits to the participant of both an in-school and a summer NYC program are only significant at the .10 level of significance. The rates of return to this program alternative are higher than the social average and marginal rates of the in-school only program alternative, but the net present values are less. This is not an inconsistent result since the ranking of investment alternatives will differ as different discount rates are used if the time-earnings profiles of the alternatives differ.

However, based on level of statistical significance, the investment benefits to the in-school program are more certain to be realized. Thus, among the three program alternatives, we would argue that the in-school NYC program is a more efficient social investment (in monetary terms) than a combined in-school/summer program. And, the summer only program has no net positive social monetary return at all.

C. Private Monetary Costs and Benefits

Based on the costs estimated in Chapter IV and benefits estimated in Chapter V, private monetary benefits can also be estimated. The data for this set of estimations are displayed in Appendix Table 19-V. The assumption is made that private average cost is equal to private

marginal cost. If the addition of one more NYC participant to the NYC program did not increase average cost, then average cost would be constant and would be equal to marginal cost. In fact, for the total sample average and marginal social costs differ only by a few dollars per month.

Average and Marginal Private Rates of Return. Table 52 displays the estimated private rates of return for the total sample and selected sub-groups. Again, as will the social measures, the assumption is made that costs among the subgroups do not differ from costs of the total group.

Both the average and marginal private rates of return are higher than their social counterparts. In fact, they are often twice as high. Thus, for those rates which are statistically significant, the private individual gains about double the benefit of society. For the total sample, the average private rate of return is 224.0 per cent, compared to an average rate for society of 90.1 per cent. The marginal private rate for the total sample is 171.6 per cent, compared to the marginal social rate of 55.9 per cent. In short, the rates are so high, that a considerable upward bias would have to exist due to the presumed poorer labor market experience of the non-response group for these rates to fall to levels unacceptable on efficiency grounds.

It should again be pointed out that Negro females contribute a net social rate of return but that their private rate of return is not significantly different from zero. Negro males gain the highest benefit

TABLE 52

ESTIMATED PRIVATE RATES OF RETURN

Sample Group	Average[a]		Marginal[a]	
	m[b]	m+s[c]	m	m+s
Total Sample	224.0*	229.6*	171.6*	181.1*
Male	300.6+	308.0+	253.7+	255.0+
Female	139.4	148.7	94.6	109.9
White	274.0*	276.6*	213.2*	218.3*
Negro	367.7**	375.2**	320.2**	330.4**
White Male	181.3*	196.3*	132.2*	153.8*
Negro Male	377.3+	389.6+	331.8+	347.2+
White Female	133.9	140.5	88.0	99.6
Negro Female	271.4	282.5	226.7	241.4

Notes: (a) The assumption is that average and marginal private costs are equal.

(b) m = the average number of months the NYC participant was eligible to be in the civilian labor force.

(c) m+s = m plus one standard deviation of m.

\+ = significant at the .10 level.

* = significant at the .05 level.

** = significant at the .01 level.

rate in both average and marginal terms. But these rates are significant at only the .10 level of statistical significance.

Average and Marginal Private Net Present Values. Table 53 displays the estimated private net present values. Again, these are based on a ten per cent discount rate. While the private and social rates of return differ a great deal in relative magnitude, the relative differences between private and social net present values are not as great. This is due to the nature of the cost-benefit profiles and the particular value of discount rate used. Different discount rates, for instance, could change the relative pattern considerably given that different cost-benefit profiles exist between private and social estimations.

The average private net present value for a NYC participant of the total sample is $728 at a ten per cent discount rate. The marginal private net present value for an additional participant in the NYC program is $463. For total NYC program enrollment for fiscal years 1965-66 and 1966-67, the average and marginal totals are approximately $242,843,000 and $154,434,000, respectively.

Finally, it is of interest to note that for the Negro sub-sample, there is only a small difference between private and social net present values for either average or marginal concepts. For the average net present value, the figures for private and social concepts are $1,205 and $1,426, respectively. For the marginal net present value, the figures for private and social concepts are $915 and $963, respectively. Note, though, that private benefits are less than social benefits so that, in this program context, the private individual has less incentive to

TABLE 53

ESTIMATED PRIVATE NET PRESENT VALUES, IN DOLLARS,
AT A TEN PER CENT DISCOUNT RATE

Sample Group	Average[a]		Marginal	
	m[b]	$m+s$[c]	m	$m+s$
Total Sample	728*	1,514*	463*	1,012*
Male	933+	2,025+	634+	1,426+
Female	381	841	210	423
White	1,100*	2,011*	701*	1,321*
Negro	1,205**	2,432**	915**	1,878**
White Male	408*	901*	249*	601*
Negro Male	1,078+	2,209+	835+	1,741+
White Female	403	736	212	430
Negro Female	720	1,445	523	1,083

Notes: (a) The assumption is that average and marginal private costs are equal.

(b) m = the average number of months the NYC participant was eligible to be in the civilian labor force.

(c) $m+s$ = m plus one standard deviation of m.

\+ = significant at the .10 level.

* = significant at the .05 level.

** = significant at the .01 level.

invest in himself than does society to invest in him. Other things equal, he will stop short of the optimal social point of investment.

D. Governmental Monetary Benefits.

In terms of money benefits, the net present value of monetary returns to the federal government will be negative for the total sample since the average and marginal increment of social security taxes paid by the total sample of NYC participants after they left high school are not statistically significant from zero, while the financial costs to the federal government are positive. The implied rate of return is zero based on the simple ratio of benefits to costs. Negroes and especially Negro females, do, however, contribute a positive undiscounted increment of taxes to the federal government. However, even undiscounted, these taxes paid by the Negro female group are insufficient to cover federal government financial outlays on the Negro females.

However, it must again be stressed that the use of taxation returns is not a desirable criterion on which to base the decision for governmental investments designed to foster overall social well being, since, based on national income accounting concepts, the addition of social monetary benefits to the gross national product is relatively large. Presumably, such social investments as the Neighborhood Youth Corps are undertaken for the general benefit and welfare of society and not for the general monetary gains to be had by the federal government.

E. Conclusions on the Monetary Returns to the NYC

The conclusions from this economic analysis are several, as are the qualifications to it. First, one must distinguish between reasons for support of the NYC program on economic efficiency grounds and support for the program on equity grounds, that is, for reasons of affecting desired changes in society's income distribution. One should also recognize that criteria other than economic criteria can be valid grounds for accepting or rejecting the NYC program as a desirable social program in aid of youth. It is not expected that economic efficiency be given a weight of one hundred per cent when deciding to support or change a social program, though economic criteria should enter into the decision-making process to some degree--this degree to be determined by society through its elected representatives.

With these thoughts in mind, it seems clear that the NYC program pays off rather well in monetary economic terms. It also appears that the favorable effect of the program for Negroes is responsible for much of this overall benefit. Unfortunately, small sample sizes made it impossible to determine the labor market effects of the NYC for American Indian, Mexican American and Puerto Rican NYC participants. Next, females, and especially white females do not appear to gain positive labor market benefits from participating in the NYC. However, this does not mean that white females should be excluded from participating in the NYC since on equity and non-economic grounds they must quite obviously be included in the program. Finally, Negro females experience

positive social benefits but zero private benefits. This is a non-optimal situation in an economic sense since there now opens up the possibility of a divergence between efficient social versus efficient private economic behavior. With no net private benefit accruing to them, Negro females have no economic incentive to enter the program even though society stands to gain if they do so.

Finally, the study estimates are subject to at least the following qualifications:

First, the control group and the NYC group do not come from exactly the same population, even though they are drawn from the same ultimate areas (high schools) and conform in terms of age and family income qualification for enrollment in the NYC. There are also problems of self-selection bias which the discriminant function accounts for, but not completely.

Next, since this study deals with a stratified random sample of the NYC participants who enrolled in the NYC in fiscal years 1965-66 and 1966-67, there is the usual problem of sampling variability. However, this does not denigrate the basic findings of this study.

Finally, since we are dealing with a sample of 676 observations out of an original projected sample of 1200, the study is subject to non-response bias. The presence of this non-response bias is such that its effect is to create an upward bias in our measures of social monetary benefit. This is so because those people who fare poorly in society both in social and economic terms tend to be concentrated among non-respondents in this type of social research. We feel assured,

however, that this bias is not so great that these monetary benefits will be wiped out. It is important to note, also, that the present value of social money benefits is arrived at by discounting at a relatively high social opportunity cost rate of ten per cent.

In summary, then, the Neighborhood Youth Corps has been a worthwhile social investment from an economic standpoint to the extent that these monetary benefits reflect total economic benefits.

F. Cost-Effectiveness Analysis of the Neighborhood Youth Corps

Small but positive benefits exist when the NYC program status variable is expressed in a scaled form based on the number of months each respondent is enrolled in the NYC. However, when the NYC program status is expressed in a dummy functional form, as indicated in Chapter VI, for the sample as a whole there is no net positive effect of the NYC program on the probability of graduation from high school or on the number of years of high school completed.

On the basis of months of enrollment in the NYC, an expenditure of $34 per month for an average of 12 months based on social concepts of cost for the federal plus sponsor share results in an increased probability of graduation from high school of about .6 of one percent per month enrolled. The same expenditure results in an increase of about one to two days in high school attendance per month enrolled. A $26 per month expenditure for 12 months based on social concept of cost for the federal share results in the same educational benefits -- an increase in the probability of graduation of about .6 of one percent for each month enrolled in the NYC and an increase of one to two days of attendance for each month enrolled in the NYC.

In addition, the NYC program did result in positive post-high school educational benefits for the total sample. Table 54 displays the estimated cost-effectiveness ratios for the total and the male sample. Except for one or two instances, the program effects for other sex or sex-ethnic groups are not statistically significant and so they are not displayed.

The ratios of average benefits to average costs for both the total and the male sample are larger than the marginal cost-effectiveness ratios. For an average cost $313 (based on the federal share only), the total sample experiences a 17.56 percent increase in the probability of attending some type of two or four year college or university. This ratio for males, assuming no average cost differences between the total and the male sample, is lower -- 15.54%/$313. In addition, it is significant only at the .10 level.

For an average expenditure of $313 the total sample increases its average likelihood of participating in some type of post-secondary education other than college by 9.10 percent. This average cost-effectiveness ratio is double for males, 20.96/$313.

The marginal cost-effectiveness ratios for the total and male samples are about the same with respect to the probability of attending college. However, the marginal cost-effectiveness ratio for the probability of post-high school training is about 2.5 times larger for males than it is for the total sample.

G. Summary and Conclusions

The conclusions of the investment analysis of the Neighborhood Youth Corps are straightforward.

TABLE 54

COST-EFFECTIVENESS ANALYSIS OF POST-HIGH SCHOOL EDUCATIONAL BENEFITS OF THE NEIGHBORHOOD YOUTH CORPS[a]

Sample Groups	Cost-Effectiveness Ratio			
	Probability of Attending College		Probability of Post-High School Training	
	Average	Marginal	Average	Marginal
Total Sample	17.56%/$313**	12.55%/$409**	9.10%/$313+	6.50%/$409+
Male	15.54%/$313+	11.34%/$409+	20.96%/$313**	15.29%/$409+

Notes: (a) Costs are reported for the Federal Share only and are based on the combined in-school and summer projects for the total sample.

\+ = significant at the .10 level.

* = significant at the .05 level.

** = significant at the .01 level.

First, both the average and marginal net monetary benefits to the NYC program are large and statistically significant. This seems to be due mainly to the positive effects of the NYC program on Negroes, especially Negro females.

Positive, statistically significant monetary benefits accrue to the in-school program and to those participants who were enrolled in both an in-school and a summer NYC program component. But no statistically significant monetary benefits accrue to the summer only program.

Estimated private rates of return and net present values are generally larger than their respective social estimations. However, the private estimations follow the same general pattern as the social estimations with one exception: social monetary benefits accrue to Negro females but this group does not gain statistically significant private benefits. This creates a lack of coincidence between efficient social and private economic behavior for this group. Negro females will likely invest less in themselves than what is socially desirable.

The NYC program as a whole does not yield net monetary benefits to the federal government in the form of increased income and social security taxes. However, Negroes and especially Negro females do contribute net tax benefits.

The social cost-effectiveness ratios for the total sample when the NYC program status variable is expressed in a scaled functional form are small but positive for both the probability of high school graduation and for the number of years of high school completed. Positive and large cost-effectiveness ratios exist for the total

CHAPTER VIII

THE NYC EXPERIENCE AND EVALUATION BY PARTICIPANTS

A. Introduction

The potential benefits of the NYC experience go beyond years of schooling and post-high school labor market activity. It is hoped that the work provided to participants in the NYC program was useful and rewarding in itself and that those enrolled felt that it contributed to their educational, social and economic well-being. The evaluations and attitudes of the participants supplement the statistical data on employment and earnings in a full appraisal of the program.

B. NYC Enrollment by Type of Program

Of the three types of NYC programs, summer only, in-school only and in-school and summer combined, the largest percentage of enrollees in the sample participated in the in-school only program. This was especially true in the south, where 60 percent of the females and 45 percent of the males were in the in-school only NYC. The remainder of the males in the south were approximately evenly divided between summer only and in-school and summer combined programs. In the west, 40 and 44 percent, respectively, of female and male participants were in the in-school only program, with a relatively larger proportion of the remainder in the combined rather than the summer only program. Only in the north was there a larger percentage of males, 39.2 percent, in the combined program, but even here 47 percent of the females were in the in-school only program, with the remainder being roughly evenly divided between the other two types of programs as shown in Table 55.

The ethnic minority groups tended to be distributed among the three programs in somewhat the same proportion as whites. However, a relatively large proportion of the Mexican Americans in the south were in the summer only program,

sample and for males with respect to the probability of college attendance and the probability of post-high school training other than college. In addition only Mexican Americans among the other sex and sex-ethnic groups benefit with respect to college attendance and only white males among these groups benefit with respect to the probability of acquiring post-high school training other than college.

TABLE 55

NYC ENROLLMENT, BY TYPE OF PROGRAM

	Summer Only		In-School Only		In-School and Summer		Total
	#	%[a]	#	%	#	%	#
NORTH							
Male	23	29.1	25	31.7	25	39.2	73
Female	30	28.9	49	47.1	31	24.0	110
White	34	31.2	42	38.5	33	30.3	309
Negro	11	19.0	27	46.6	20	34.5	58
American Indian	6	66.7	2	22.2	1	11.1	9
Mexican American	1	20.0	3	60.0	1	20.0	5
WEST							
Male	25	23.6	47	44.3	34	32.1	106
Female	23	20.9	44	40.0	43	39.1	110
White	9	12.9	33	47.1	28	40.0	70
Negro	13	19.7	27	40.9	26	39.4	66
American Indian	17	46.0	13	35.1	7	18.9	37
Mexican American	7	17.5	17	42.5	16	40.0	40
SOUTH							
Male	33	28.0	54	45.8	31	26.3	118
Female	19	16.8	68	60.2	26	23.0	104
White	31	22.0	79	56.0	31	22.0	141

TABLE 55. -- Continued

	SOUTH						
	Summer Only		In-School Only		In-School and Summer		Total
	#	%	#	%	#	%	#
Negro	12	21.1	26	45.6	19	33.3	57
American Indian	1	5.9	12	70.6	4	23.5	17
Mexican American	8	57.1	3	21.4	3	21.4	14

Notes: (a) Percentages may not add to 100 due to rounding.

and a relatively large proportion of American Indians in the south were in the in-school program. Although there were differences in the three regions in the allocation of whites and Negroes by program, over-all they were distributed in the three types of programs in roughly the same proportions.

C. Employment Experience in NYC

As is seen in Table 56, those enrolled in the combined in-school and summer program averaged more months in NYC (17.3 in the south, 14.9 in the west, and 14.5 in the north) than participants in the other programs. In the south and west, those enrolled in the combined program also received higher hourly wage rates and higher total before-tax earnings. The earnings level largely reflected the greater number of months of participation, since the summer only participants average substantially more hours per week. In the north, hourly wages and average hours per week were higher for summer only participants, but those in the combined program still enjoyed considerably greater total earnings because of their longer participation in the NYC. Those enrolled in the combined program also tended to have a slightly higher level job (as measured by the Socio-Economic Index)[1] than those in the other programs, although the differences were very small.

Female participants tended to have "better" jobs than males, with higher hourly wage rates and larger total earnings as shown in Table 57. Although they average more months in the NYC than male participants in the west and south, males had somewhat longer tenure in the north.

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[1]This index is taken from the following source: Albert J. Reiss, Jr. et al., Occupational and Social Status, (New York: The Free Press of Glencoe, Inc., 1961), Appendix B.

TABLE 56

EMPLOYMENT EXPERIENCE OF NYC PARTICIPANTS WHILE ENROLLED IN NYC BY REGION AND TYPE OF PROGRAM

Variable		South					
		Summer Only		In-School Only		In-School and Summer	
Total number of months respondent was enrolled in the High School NYC		4.08[a] (4.52)		12.07 (8.38)		17.33 (9.81)	
Average (before deductions) hourly wage rate while working in the NYC: weighted.		1.27 (.08)		1.28 (.08)		1.30 (.12)	
Average hours worked per week while in the NYC: weighted		2.92 (8.97)		14.83 (8.04)		16.65 (8.95)	
Total earnings before taxes while in the NYC.		683 (735)		1,054 (953)		1,465 (1,096)	
Socio-economic (SES) index of occupation held for the longest period of time while in the NYC.		23.81 (20.60)		27.89 (17.82)		28.37 (17.13)	
		#	%	#	%	#	%
Occupation held for the longest period of time in the NYC.	0.[b]	5	9.6	1	.8	0	.0
	1.	0	.0	0	.0	0	.0
	2.	0	.0	0	.0	00	.0
	3.	13	25.0	62	50.8	30	52.6
	4.	0	.0	2	1.6	1	1.8
	5.	1	1.9	0	.0	1	1.8
	6.	0	.0	0	.0	1	1.8
	7.	26	50.0	54	44.3	24	42.1
	8.	7	13.5	3	2.5	0	.0
In general, did (do) you like the kind of work you were (are) doing? Why or why not?	NO		7.8	20	16.5	6	10.7
	YES		92.2	101	83.5	50	89.3
		West					
Total number of months respondent was enrolled in the High School NYC.		4.02[a] (5.16)		9.36 (7.25)		14.92 (8.21)	
Average (before deductions) hourly wage rate while working in the NYC: weighted.		1.28 (.08)		1.26 (.06)		1.28 (.08)	

TABLE 56--Cont.

Variable		Summer Only		In-School Only		In-School and Summer	
Average hours worked per week while in the NYC: weighted.		31.85 (8.77)		14.33 (8.14)		18.46 (8.47)	
Total earnings before taxes while in the NYC.		63.1 (45.3)		87.1 (93.6)		1,427 (957)	
Socio-economic (SES) index of occupation held for the longest period of time while in the NYC.		25.45 (19.69)		30.86 (18.37)		32.03 (20.15)	
		#	%[c]	#	%	#	%
Occupation held for the longest period of time in the NYC.	0.[b]	4	8.7	3	3.3	6	7.8
	1.	0	.0	0	.0	1	1.3
	2.	0	.0	0	.0	0	.0
	3.	12	26.1	48	52.8	38	49.4
	4.	0	.0	0	.0	0	.0
	5.	4	8.7	1	1.1	0	.0
	6.	2	4.4	2	2.2	0	.0
	7.	21	45.7	36	39.6	28	36.4
	8.	3	6.5	1	1.1	4	5.1
In general, did (do) you like the kind of work you were (are) doing? Why or why not?	NO	8	16.7	15	17.1	5	6.6
	YES	40	83.3	73	83.0	71	93.4
Total number of months respondent was enrolled in the High School NYC.		3.85[a] (3.04)		10.96 (8.08)		14.47 (8.30)	
Average (before deductions) hourly wage rate while working in the NYC: weighted		1.38 (.67)		1.26 (.10)		1.30 (.19)	
Average hours worked per week while in the NYC: weighted.		30.50 (8.74)		16.17 (7.24)		19.61 (8.64)	
Total earnings before taxes while in the NYC.		62.4 (48.9)		97.0 (72.5)		1,850 (187.3)	
Socio-economic (SES) index of occupation held for the longest period of time while in the NYC.		29.17 (20.21)		33.72 (19.18)		33.93 (22.75)	

TABLE 56--Cont.

Variable		North: Summer Only #	Summer Only %[c]	In-School Only #	In-School Only %	In-School and Summer #	In-School and Summer %
Occupation held for the longest period of time in the NYC.[a]	0.[b]	5	9.3	4	5.5	7	12.5
	1.	0	.0	0	.0	0	.0
	2.	0	.0	0	.0	0	.0
	3.	20	37.0	40	54.1	22	39.3
	4.	1	1.9	0	.0	0	.0
	5.	0	.0	0	.0	0	.0
	6.	1	1.9	2	2.7	0	.0
	7.	24	44.4	25	33.8	25	44.6
	8.	3	5.6	3	4.1	2	3.6
In general, did (do) you like the kind of work you were (are) doing? Why or why not?[b]	NO	9	16.98	10	13.51	3	5.45
	YES	44	83.02	64	86.49	52	94.55

Notes: (a) The statistics are, in descending order, the variable mean and the standard deviation of the mean.

(b)
0 = professional, technical and kindred workers
1 = farmers
2 = managers, officials, proprietors
3 = clerical and kindred workers
4 = sales workers
5 = craftsmen, foremen, and kindred workers (skilled workers)
6 = operatives and kindred workers (semi-skilled workers)
7 = private household and service workers
8 = laborers (unskilled workers)

(c) Percentages may not add to 100 due to rounding.

TABLE 57

EMPLOYMENT EXPERIENCE OF NYC PARTICIPANTS WHILE ENROLLED IN THE NYC, BY REGION AND SEX

Variable	WEST		NORTH		SOUTH	
	Male	Female	Male	Female	Male	Female
Total number of months respondent was enrolled in the High School NYC	8.87[a] (6.95)	11.64 (9.34)	10.38 (8.92)	9.47 (7.58)	10.96 (9.33)	12.67 (9.52)
Average (before deductions) hourly wage rate while working in the NYC: weighted	1.27 (.06)	1.28 (.08)	1.28 (.16)	1.33 (.50)	1.27 (.07)	1.30 (.10)
Average hours worked per week while in the NYC: weighted	21.13 (11.12)	18.11 (10.22)	22.14 (10.88)	20.97 (9.54)	20.36 (11.29)	17.92 (10.71)
Total earnings before taxes while in the NYC	935 (85)	1,101 (998)	1,236 (1,556)	1,043 (950)	1,055 (999)	1,193 (1,201)
Socio-economic index of occupation held for longest period of time while in the NYC	19.17 (18.22)	41.09 (13.78)	23.46 (21.56)	39.50 (16.91)	16.64 (15.79)	38.50 (13.79)

TABLE 57 -- Continued

Variable		WEST Male #	WEST Male %	WEST Female #	WEST Female %	NORTH Male #	NORTH Male %	NORTH Female #	NORTH Female %	SOUTH Male #	SOUTH Male %	SOUTH Female #	SOUTH Female %
Occupation held for the longest period of time in the NYC	0.[b]	8	7.4	6	5.5	11	13.9	5	4.8	4	3.3	3	2.5
	1.	1	.9	0	.0	0	.0	0	.0	0	.0	0	.0
	2.	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
	3.	15	13.9	84	77.1	13	16.5	69	66.4	17	14.2	93	78.2
	4.	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
	5.	3	2.8	2	1.8	0	.0	0	.0	2	1.7	1	.0
	6.	4	3.7	0	.0	2	2.5	1	1.0	1	.8	0	.0
	7.	70	64.8	16	14.7	45	57.0	28	26.9	82	68.3	23	19.3
	8.	7	6.5	1	.9	8	10.1	0	.0	11	9.2	0	.0
In general, did (do) you like the kind of work you were (are) doing?	No	18	16.9	11	10.0	16	20.2	6	5.8	17	14.4	13	11.1
	Yes	88	83.0	98	90.0	63	80.0	97	94.1	101	85.6	104	88.9

Notes: (a) The statistics are, in descending order, the variable mean and the standard deviation of the mean.

(b) 0 = professiona, technical and kindred workers
1 = farmers
2 = managers, officials, proprietors
3 = clerical and kindred workers
4 = sales workers
5 = craftsmen, foremen, and kindred workers (skilled workers)
6 = operatives and kindred workers (semi-skilled workers)
7 = private household and service workers
8 = laborers (unskilled workers)

(c) Percentages may not add to 100 due to rounding.

Negroes averaged more months in the NYC than whites in each of the three regions, and the hourly wage rates, total earnings and Socio-Economic Index of their occupations were greater than those of whites as shown in Table 58. The average hourly wage rates and total earnings of American Indians were below those of whites, but wages and earnings of Mexican Americans exceeded the average for the white NYC participants. The Socio-Economic Index of occupations held by American Indians was low relative to those held by other ethnic groups.

D. Evaluation of NYC by Participants

As is seen in Table 59, a majority of the participants in the north responded that they "liked the kind of work very much" on their NYC jobs. Satisfaction was higher in the in-school program than in the summer program and higher still in the combined in-school and summer program (80 percent in the "very much" category). This pattern of satisfaction also applied to attitudes toward their supervisors, with 75 percent of those in the combined program responding that he "was a very good boss".

Satisfaction with wage rates in the north was not at so high a level, but even here, the participants were overwhelmingly "very satisfied" or "pretty satisfied". Here, too, the highest levels of satisfaction were found in the combined program. This is resonable, since those who stayed in the program longer would be more likely to be satisfied with it.

Regardless of the objective labor market experience discussed in previous chapters, participants in the NYC in the north were overwhelmingly convinced that the program has probably increased their chances of "getting a better job in the future". Once again, optimism on this point was especially marked in the responses of participants in the combined program, with over 80 percent agreeing on improved job possibilities because of NYC.

TABLE 58

EMPLOYMENT EXPERIENCE OF NYC PARTICIPANTS WHILE ENROLLED IN THE NYC, BY REGION AND ETHNIC ORIGIN

Variable		West							
		White		Negro		American Indian		Mexican American	
Total number of months respondent was enrolled in the High School NYC		10.06[a] (8.05)		11.43 (8.89)		8.42 (9.01)		10.17 (6.29)	
Average (before deductions) hourly wage rate while working in the NYC: weighted.		1.27 (.07)		1.28 (.07)		1.24 (.07)		1.28 (.08)	
Average hours worked per week while in the NYC: weighted.		17.78 (9.45)		20.01 (10.34)		23.53 (13.53)		19.05 (10.26)	
Total earnings before taxes while in the NYC.		91.4 (66.2)		1,253 (1,199)		839 (731)		985 (843)	
Socio-economic (SES) index of occupation held for the longest period of time while in the NYC.		29.53 (17.83)		36.00 (22.15)		20.76 (15.28)		29.12 (17.70)	
		#	%[c]	#	%	#	%	#	%
Occupation held for the longest period of time in the NYC	0.[b]	1	1.4	11	16.7	0	.0	1	2.5
	1.	0	.0	1	1.5	0	.0	0	.0
	2.	0	.0	0	.0	0	.0	0	.0
	3.	39	54.2	29	43.9	9	25.0	20	50.0
	4.	0	.0	0	.0	0	.0	0	.0
	5.	1	1.4	1	1.5	2	5.6	1	2.5
	6.	1	1.4	0	.0	2	5.6	1	2.5
	7.	27	37.5	22	33.3	21	58.3	16	40.0
	8.	3	4.2	2	3.0	2	5.6	1	2.5
In general, did (do) you like the kind of work you were (are) doing? Why or why not?	NO	8	11.11	7	10.77	10	27.03	4	10.53
	YES	64	88.89	58	89.23	27	72.97	34	89.47
Total number of months respondent was enrolled in the High School NYC.		9.71[a] (8.68)		11.36 (7.37)		3.63 (2.88)		5.00 (2.92)	

TABLE 58.--Cont.

Variable		North							
		White		Negro		American Indian		Mexican American	
Average (before deductions) hourly wage rate while working in the NYC: weighted.		1.28 (.15)		1.28 (.10)		1.27 (.05)		1.33 (.11)	
Average hours worked per week while in the NYC: weighted.		21.48 (10.21)		20.62 (9.66)		30.25 (6.71)		21.60 (13.76)	
Total earnings before taxes while in the NYC.		1,112 (1,377)		1,194 (812)		1,233 (2,128)		510 (230)	
Socio-economic (SES) index of occupation held for the longest period of time while in the NYC.		29.52 (19.64)		37.60 (22.32)		31.11 (21.47)		38.00 (13.98)	
		#	%[c]	#	%	#	%	#	%
Occupation held for the longest period of time in the NYC.	0.[b]	7	6.4	9	15.5	0	.0	0	.0
	1.	0	.0	0	.0	0	.0	0	.0
	2.	0	.0	0	.0	0	.0	0	.0
	3.	48	44.0	24	41.4	4	44.4	4	80.0
	4.	0	.0	1	1.7	0	.0	0	.0
	5.	0	.0	0	.0	0	.0	0	.0
	6.	2	1.8	1	1.7	0	.0	0	.0
	7.	48	44.0	20	34.5	4	44.4	1	20.0
	8.	4	3.7	3	5.2	1	11.1	0	.0
In general, did (do) you like the kind of work you were (are) doing? Why or why not?	NO	14	13.08	7	12.07	1	11.11	0	.0
	YES	93	86.92	51	87.93	8	88.89	5	100.0

TABLE 58--Cont.

Variable	South			
	White	Negro	American Indian	Mexican American
Total number of months respondent was enrolled in the High School NYC.	10.25[a] (7.96)	16.21 (11.30)	12.25 (10.62)	5.69 (4.23)
Average (before deductions) hourly wage rate while working in the NYC: weighted	1.26 (.05)	1.32 (.14)	1.31 (.07)	1.28 (.08)
Average hours worked per week while in the NYC: weighted	18.29 (11.18)	18.77 (9.76)	21.56 (14.20)	27.64 (8.70)
Total earnings before taxes while in the NYC.	917 (1,015)	1,597 (1,295)	1,228 (786)	929 (829)
Socio-economic (SES) index of occupation held for the longest period of time while in the NYC.	23.89 (17.47)	38.61 (15.69)	17.59 (15.17)	26.64 (21.92)

		White #	White %[c]	Negro #	Negro %	American Indian #	American Indian %	Mexican American #	Mexican American %
Occupation held for the longest period of time in the NYC.	0.[b]	1	.7	4	6.3	0	.00	2	14.3
	1.	0	.0	0	.0	0	.00	0	.0
	2.	0	.0	0	.0	0	.00	0	.0
	3.	56	39.4	46	71.9	4	25.53	3	21.4
	4.	2	1.4	0	.0	1	5.88	0	.0
	5.	0	.0	0	.0	0	.00	2	14.3
	6.	0	.0	1	1.6	0	.00	0	.0
	7.	74	52.1	13	20.3	12	70.59	6	42.9
	8.	9	6.3	0	.0	0	.00	1	7.1

TABLE 58--Cont.

Variable		South							
		White		Negro		American Indian		Mexican American	
		#	%	#	%	#	%	#	%
In general, did (do) you like the kind of work you were (are) doing? Why or why not?	NO	22	15.60	4	6.56	3	17.65	1	7.14
	YES	119	84.40	57	93.44	14	82.35	13	92.86

Notes: (a) The statistics are, in descending order, the variable mean and the standard deviation of the mean.

(b) 0 = professional, technical and kindred workers
1 = farmers
2 = managers, officials, proprietors
3 = clerical and kindred workers
4 = sales workers
5 = craftsmen, foremen, and kindred workers (skilled workers)
6 = operatives and kindred workers (semi-skilled workers)
7 = private household and service workers
8 = laborers (unskilled workers)

(c) Percentages may not add to 100 due to rounding.

TABLE 59

ATTITUDES OF NYC PARTICIPANTS TOWARD THEIR NYC EXPERIENCE, BY REGION AND PROGRAM

Attitude		NORTH					
		Summer Only		In-School Only		In-School and Summer	
		#	%[e]	#	%	#	%
How much did you like the kind of work you did in your (NYC: most recent) job?[a]	1.	29	55.8	53	70.3	44	80.0
	2.	2	3.9	5	6.7	0	.0
	3.	19	36.5	17	23.0	11	20.0
	4.	2	3.9	0	.0	0	.0
How satisfied were you with your (NYC: most recent) hourly wage rate?[b]	1.	14	25.9	18	24.3	18	32.1
	2.	27	50.0	40	54.1	27	48.2
	3.	10	18.5	12	16.2	9	16.1
	4.	3	5.6	4	5.4	2	3.6
How did you feel about your (NYC: most recent) immediate supervisor?[c]	1.	38	71.7	54	73.0	42	75.0
	2.	13	24.5	18	24.3	13	23.2
	3.	1	1.9	2	2.7	0	.0
	4.	1	1.9	0	.0	1	1.8
Participating in the NYC has probably increased my chances of getting a better job in the future.[d]	1.	9	17.3	15	20.6	21	40.4
	2.	22	42.3	42	57.5	21	40.4
	3.	10	19.2	7	9.6	5	9.6
	4.	11	21.2	9	12.3	5	9.6
Participating in the NYC has probably decreased my chances of graduating from high school.[d]	1.	0	.0	2	4.9	0	.0
	2.	1	3.2	1	2.4	1	5.0
	3.	3	9.7	5	12.2	3	15.0
	4.	27	87.1	33	80.5	16	80.0
Participating in the NYC has increased my self-respect.[d]	1.	13	25.0	18	25.0	23	43.4
	2.	24	46.2	39	54.2	20	37.7
	3.	10	19.2	8	11.1	7	13.2
	4.	5	9.6	7	9.7	3	5.7

TABLE 59--Continued

Attitude		NORTH					
		Summer Only		In-School Only		In-School and Summer	
		#	%	#	%	#	%
Participating in the NYC has not improved my attitude toward work.[d]	1.	1	2.6	1	2.0	2	6.3
	2.	9	23.1	12	23.5	3	9.5
	3.	3	19.2	8	11.1	7	13.2
	4.	26	66.7	33	64.7	21	65.6
Participating in the NYC has improved my attitudes toward education.[d]	1.	10	19.6	18	25.3	22	40.7
	2.	27	52.9	33	46.5	16	29.6
	3.	7	13.7	9	12.7	9	16.7
	4.	7	13.7	11	15.5	7	13.0

Attitude		WEST					
		Summer Only		In-School Only		In-School and Summer	
		#	%	#	%	#	%
How much did you like the kind of work you did in your (NYC: most recent) job?[a]	1.	26	54.2	57	62.6	52	69.3
	2.	1	2.1	5	5.5	2	2.7
	3.	19	39.6	22	24.2	19	25.3
	4.	2	4.2	7	7.7	2	2.7
How satisfied were you with your (NYC: most recent) hourly wage rate?[b]	1.	5	10.4	17	18.7	14	18.2
	2.	23	47.9	51	56.0	38	49.4
	3.	16	33.3	13	14.3	17	22.1
	4.	4	8.3	10	11.0	8	10.4
How did you feel about your (NYC: most recent) immediate supervisor?[c]	1.	27	56.3	65	72.2	58	75.3
	2.	19	39.6	22	24.4	16	20.8
	3.	2	4.2	1	1.1	1	1.3
	4.	0	.0	2	2.2	2	2.6

TABLE 59--Continued

Attitude		WEST					
		Summer Only		In-School Only		In-School and Summer	
		#	%	#	%	#	%
Participating in the NYC has probably increased my chances of getting a better job in the future.[d]	1.	10	20.8	17	19.1	18	23.3
	2.	26	54.2	41	46.1	42	54.6
	3.	8	16.7	18	20.2	10	13.0
	4.	4	8.3	13	14.6	7	9.1
Participating in the NYC has probably decreased my chances of graduating from high school.[d]	1.	1	3.0	0	.0	1	2.9
	2.	2	6.1	3	6.3	1	2.9
	3.	7	21.2	6	12.5	2	5.7
	4.	23	69.7	39	81.3	31	88.6
Participating in the NYC has increased my self-respect.[d]	1.	13	27.1	19	21.6	22	29.0
	2.	21	43.8	55	62.6	39	51.3
	3.	12	25.0	10	11.4	7	9.2
	4.	2	4.2	4	4.6	8	10.5
Participating in the NYC has not improved my attitude toward work.[d]	1.	1	2.6	0	.0	4	7.6
	2.	5	12.8	8	12.9	7	13.2
	3.	5	12.8	5	8.1	6	11.3
	4.	28	71.8	49	79.0	36	67.9
Participating in the NYC has improved my attitudes toward education.[d]	1.	17	35.4	32	36.0	23	30.3
	2.	23	47.9	37	41.6	35	46.0
	3.	5	10.4	12	13.5	9	11.8
	4.	3	6.3	8	9.0	9	11.8

TABLE 59--Continued

Attitude		SOUTH					
		Summer Only		In-School Only		In-School and Summer	
		#	%	#	%	#	%
How much did you like the kind of work you did in your (NYC: most recent) job?[a]	1.	30	57.7	58	47.5	35	61.4
	2.	1	1.9	4	3.3	0	.0
	3.	18	34.6	56	45.9	20	35.1
	4.	3	5.8	4	3.3	2	3.5
How satisfied were you with your (NYC: most recent) hourly wage rate?[b]	1.	13	25.5	36	29.5	20	35.1
	2.	35	68.6	70	57.4	24	42.1
	3.	0	.0	13	10.7	7	12.3
	4.	3	5.9	3	2.5	6	10.5
How did you feel about your (NYC: most recent) immediate supervisor?[c]	1.	37	72.6	90	73.8	44	77.2
	2.	12	23.5	29	23.8	12	21.1
	3.	0	.0	1	.8	0	.0
	4.	2	3.9	2	1.6	1	1.8
Participating in the NYC has probably increased my chances of getting a better job in the future.[d]	1.	10	20.0	13	10.9	13	24.1
	2.	24	48.0	59	49.6	24	44.4
	3.	12	24.0	31	26.1	9	16.7
	4.	4	8.0	16	13.5	8	14.8
Participating in the NYC has probably decreased my chances of graduating from high school.[d]	1.	1	3.6	4	7.1	2	7.7
	2.	1	3.6	0	.0	0	.0
	3.	3	10.7	6	10.7	3	11.5
	4.	23	82.1	46	82.1	21	80.8
Participating in the NYC has increased my self-respect.[d]	1.	10	20.0	26	21.7	14	25.0
	2.	28	56.0	64	53.3	28	50.0
	3.	11	22.0	14	12.5	10	17.9
	4.	1	2.0	14	12.5	4	7.1

TABLE 59--Continued

Attitude		SOUTH					
		Summer Only		In-School Only		In-School and Summer	
		#	%	#	%	#	%
Participating in the NYC has not improved my attitude toward work.[d]	1.	4	10.3	2	2.3	3	7.0
	2.	0	.0	13	14.6	2	4.7
	3.	4	10.3	14	15.7	2	4.7
	4.	31	79.5	60	67.4	36	83.7
Participating in the NYC has improved my attitudes toward education.[d]	1.	17	34.0	28	23.3	22	40.7
	2.	20	40.0	64	53.3	19	35.2
	3.	10	20.0	19	15.8	11	20.4
	4.	3	6.0	9	7.5	2	3.7

NOTES: (a) 1 = I liked it very much
2 = I don't like it very much
3 = It's OK
4 = I don't like it at all

(b) 1 = very satisfied
2 = pretty satisfied
3 = not so satisfied
4 = definitely not satisfied

(c) 1 = a very good boss to work for
2 = a fairly good boss to work for
3 = not so good to work for
4 = bad to work for

(d) 1 = Strongly agree
2 = Agree
3 = Not sure
4 = Disagree or disagree

(e) Percentages may not add to 100

The NYC participants in the north were uniformly and almost unanimously convinced that the program had no unfavorable effects on their chances of high school graduation, and approximately three-fourths agreed that participation in the NYC "increased their self-respect".

Approximately 70 percent of the participants in each of the programs in the north agreed that the NYC had improved their attitude toward education, and two-thirds strongly disagreed when asked if their participation had not improved their attitude toward work.

As is seen in Table 59, the patterns of response by type of program are roughly similar in the west and south to those described above for the north. However, the level of satisfaction with the type of work performed is somewhat lower in the west and lower still in the south. The greater satisfaction of those in the combined program's wages and supervision in the north were not as evident in the west and south. As in the case of participants in the north, attitudes toward work, education, self-esteem and the prospects of a better job were overwhelmingly and uniformly favorable throughout the program types in the other regions.

Negroes in the west and north expressed less favorable attitudes than whites in evaluating their type of work, wage rates and supervisors, as shown in Table 60. In the south, satisfaction with the kind of work was higher for Negroes than whites, but satisfaction with wage rates and supervision was lower.

American Indians expressed less satisfaction with their NYC work, wage rates and supervision than other ethnic groups in the west and south, but their satisfaction level concerning the kind of work and wages was higher than that of other groups in the north. The relatively small number of Mexican Americans

TABLE 60

ATTITUDES OF NYC PARTICIPANTS TOWARD THEIR NYC EXPERIENCE BY REGION AND ETHNIC ORIGIN

Attitude		West								North								South							
		White		Negro		American Indian		Mexican American		White		Negro		American Indian		Mexican American		White		Negro		American Indian		Mexican American	
		#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
How much did you like the kind of work you did in your NYC most recent job?[a]	1.	73	64.0	57	60.6	20	37.0	40	59.7	117	61.9	63	60.6	7	63.6	4	50.0	117	48.4	74	70.5	7	35.0	7	46.7
	2.	5	4.4	2	2.1	3	5.6	3	4.5	8	4.2	10	9.6	1	9.1	0	.0	8	3.3	4	3.8	0	.0	1	6.7
	3.	31	27.2	31	33.0	28	51.9	20	29.9	58	30.7	28	26.9	3	27.3	4	50.0	104	43.0	25	23.8	12	60.0	7	46.7
	4.	5	4.4	4	4.3	3	5.6	4	6.0	6	3.2	3	2.9	0	.0	0	.0	13	5.4	2	1.9	1	5.0	0	.0
How satisfied were you with your (NYC: most recent) hourly wage rate?	1.	27	23.7	13	13.5	5	9.3	12	17.9	47	24.5	20	18.9	3	27.7	0	.0	63	26.0	25	23.8	3	15.0	3	20.0
	2.	58	50.9	44	45.8	41	75.9	21	46.3	89	46.4	57	53.8	4	36.4	6	75.0	129	53.3	56	53.3	11	55.0	12	80.0
	3.	21	18.4	22	22.9	8	14.8	17	25.4	42	21.9	20	18.9	4	36.4	2	25.0	26	10.7	14	13.3	4	20.0	0	.0
	4.	8	7.0	17	17.7	0	.0	7	10.5	14	7.3	9	8.5	0	.0	0	.0	24	9.9	10	9.5	2	10.0	0	.0
How did you feel about your (NYC: most recent) immediate supervisor?	1.	83	73.5	61	63.5	27	50.0	39	58.2	127	66.8	64	60.4	6	54.6	6	75.0	173	71.5	67	64.4	6	30.0	10	66.7
	2.	25	22.1	29	30.2	25	46.3	26	38.8	52	27.9	38	35.9	5	45.5	2	25.0	61	25.2	31	29.8	14	70.0	5	33.3
	3.	1	.9	4	4.2	1	1.9	0	.0	3	1.9	2	1.9	0	.0	0	.0	3	1.2	4	3.9	0	.0	0	.0
	4.	4	3.5	2	2.1	1	1.9	2	3.0	8	1.9	2	1.9	0	.0	0	.0	5	2.1	2	1.9	0	.0	0	.0
Participating in the NYC has probably increased my chances of getting a better job in the future.[d]	1.	22	30.6	9	13.6	8	22.2	7	17.5	19	18.1	23	40.4	1	12.5	1	20.0	21	15.3	16	25.8	1	5.9	3	23.1
	2.	26	36.1	42	63.6	19	52.8	20	50.0	58	55.2	20	35.1	4	50.0	3	60.0	65	47.5	24	38.7	12	70.6	5	38.5
	3.	14	19.4	9	13.6	6	16.7	8	20.0	13	12.4	7	12.3	0	.0	1	20.0	27	19.7	20	32.3	3	17.7	4	30.8
	4.	10	13.9	6	9.1	3	8.3	5	12.5	15	14.3	7	12.3	3	37.5	0	.0	24	17.5	2	3.2	1	5.9	1	7.7
Participating in the NYC has probably decreased my chance of graduating from high school.	1.	1	4.6	1	2.5	0	.0	0	.0	0	.0	2	7.7	0	.0	0	.0	2	3.4	2	8.0	2	12.50	1	10.0
	2.	1	4.6	3	7.5	1	3.6	2	8.3	2	3.6	0	.0	1	16.7	0	.0	1	1.7	0	.0	0	.0	0	.0
	3.	2	9.1	4	10.0	4	13.8	4	16.7	4	7.3	5	19.2	2	33.3	0	.0	5	8.5	4	16.0	3	18.8	0	.0
	4.	18	81.8	32	80.0	24	82.8	18	75.0	49	89.1	19	73.1	3	50.0	3	100.0	51	86.4	19	76.0	11	68.8	9	90.0

TABLE 60.--Cont.

Attitude		West								North								South							
		White		Negro		American Indian		Mexican American		White		Negro		American Indian		Mexican American		White		Negro		American Indian		Mexican American	
		#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Participating in the NYC has increased my self-respect.	1.	19	27.1	17	25.8	7	19.4	12	30.0	29	27.6	21	36.8	2	25.0	1	20.0	30	21.4	21	33.9	2	11.8	1	7.7
	2.	38	54.3	35	53.0	19	52.8	24	60.0	52	49.5	26	45.6	2	25.0	3	60.0	72	51.4	32	51.6	12	70.6	7	53.9
	3.	8	11.4	8	12.1	9	25.0	3	7.5	18	17.1	5	8.8	0	.0	1	20.0	27	19.3	3	4.8	1	5.9	5	38.5
	4.	5	7.1	5	9.1	1	2.8	1	2.5	6	5.7	5	8.8	4	50.0	0	.0	11	7.9	6	9.6	2	11.8	0	.0
Participating in the NYC has not improved my attitude toward work.	1.	0	.0	5	10.2	0	.0	0	.0	3	3.8	0	.0	1	16.7	0	.0	5	5.0	4	8.0	0	.0	0	.0
	2.	5	11.6	3	6.1	5	14.7	7	25.9	18	22.8	5	15.2	1	16.7	0	.0	5	5.0	7	14.0	2	16.7	0	.0
	3.	6	14.0	6	10.2	3	8.8	2	7.4	8	10.1	5	15.2	0	.0	2	66.7	14	14.0	2	4.0	2	16.7	2	18.2
	4.	32	74.4	36	73.5	26	76.5	18	66.7	50	63.3	23	69.7	4	66.7	1	33.3	76	76.0	37	74.0	8	66.7	9	81.8
Participating in the NYC has improved my attitude toward education.	1.	22	31.0	29	43.3	9	25.0	13	33.3	24	22.9	23	41.1	3	37.5	0	.0	35	25.3	31	50.0	1	5.9	5	38.5
	2.	34	47.8	24	35.8	18	50.0	19	48.7	40	38.1	25	44.6	5	62.5	4	80.0	64	46.4	21	33.9	12	70.6	7	53.9
	3.	8	11.3	11	16.4	6	16.7	1	2.6	20	19.1	4	7.1	0	.0	1	20.0	28	20.3	8	12.9	3	17.7	1	7.7
	4.	7	9.9	3	4.5	3	8.3	6	15.4	21	20.0	4	7.1	0	.0	0	.0	11	8.0	2	3.2	1	5.9	0	.0

Notes: (a)
1. I liked it very much
2. I don't like it very much
3. It's OK
4. I don't like it at all

(b)
1. Very satisfied
2. Pretty satisfied
3. Not so satisfied
4. Definitely not satisfied

(c) Percentages may not add to 100 due to rounding.

(c)
1. A very good boss to work for
2. A fairly good boss to work for
3. Not so good to work for
4. Bad to work for

(d)
1. Strongly agree
2. Agree
3. Not sure
4. Disagree or strongly disagree

provided a mixed pattern of responses, varying considerably by region as shown in Table 60.

The effect of NYC participation on anticipations of Negroes as compared with whites varies considerably by region. In the north, an appreciably smaller percentage of Negroes were fully convinced that the NYC experience would lead to a better job; but in the north and south, a larger percentage of Negroes as compared with whites were in the most optimistic category. Attitudes of Negroes toward the effect of their NYC participation on educational prospects, work and self-esteem were similar to those of whites in each region--overwhelmingly favorable. It is notable that in the south a greater proportion of Negroes, 84 percent, felt that the NYC program had improved their attitude toward education than was the case of whites (72 percent). Of course, those positive reactions are also reflected in the more positive performance of the Negro ethnic group as shown in Chapters V and VI.

Female participants expressed greater enthusiasm than males concerning the kind of work performed in their NYC job. This was true in each of the regions. They also expressed greater satisfaction with their hourly wage rates, and in the west and south they were more enthusiastic than males in evaluating their supervisors.

Female participants in each of the regions were also more optimistic than males about the NYC program's effect on future job prospects. Female participants were also more convinced than males that their NYC participation had improved their attitudes toward education. This finding, too, extended across each of the regions as shown in Table 61.

TABLE 61

ATTITUDES OF NYC PARTICIPANTS TOWARD THEIR NYC EXPERIENCE, BY REGION AND SEX

Attitude		North				West				South			
		Male		Female		Male		Female		Male		Female	
		#	%[e]	#	%	#	%	#	%	#	%	#	%
How much did you like the kind of work you did in your (NYC: most recent) job?[a]	1.	73	53.3	123	68.3	78	44.6	114	72.2	75	41.4	132	65.0
	2.	4	2.9	15	8.3	9	5.1	4	2.5	6	3.3	7	3.5
	3.	53	38.7	40	22.2	76	43.4	36	22.8	88	48.6	60	29.6
	4.	7	5.1	2	1.1	12	6.9	4	2.5	12	6.6	4	2.0
How satisfied were you with your (NYC: most recent) hourly wage rate?[b]	1.	23	16.7	47	25.5	23	13.1	35	22.0	36	19.8	58	28.7
	2.	70	51.7	89	48.3	92	52.3	83	52.2	103	56.6	107	53.0
	3.	32	23.2	37	20.1	42	23.9	28	17.6	25	13.8	19	9.4
	4.	13	9.4	11	6.0	19	10.8	13	8.2	18	9.9	18	8.9
How did you feel about your (NYC: most recent) immediate supervisor?[c]	1.	89	65.0	118	64.5	96	54.9	117	73.6	117	64.3	140	69.7
	2.	40	29.2	58	31.7	71	40.6	34	21.4	57	31.3	55	27.4
	3.	4	2.9	1	0.6	1	0.6	6	3.8	2	1.1	5	2.5
	4.	4	2.9	6	3.3	7	4.0	2	1.3	6	3.3	1	0.5
Participating in the NYC has probably increased my chances of getting a better job in the future.[d]	1.	16	21.8	29	29.0	15	14.0	31	28.2	14	12.1	27	23.5
	2.	35	45.5	50	50.0	52	48.6	58	52.7	55	47.4	53	46.1
	3.	13	16.9	9	9.0	25	23.4	12	11.9	30	25.9	24	21.9
	4.	13	16.9	12	12.0	15	14.0	9	8.2	17	14.7	11	9.6
Participating in the NYC has probably decreased my chances of graduating from high school.[d]	1.	0	.0	2	4.2	1	1.6	1	1.8	3	4.6	4	8.7
	2.	1	2.3	2	4.2	3	4.9	4	7.0	1	1.5	0	.0
	3.	5	11.6	5	10.4	5	8.2	10	17.5	8	12.3	4	8.7
	4.	37	86.1	39	81.3	52	85.3	42	73.7	53	81.5	38	82.6
Participating in the NYC has increased my self-respect.[d]	1.	19	24.4	35	35.4	23	21.7	32	29.4	23	19.5	31	26.7
	2.	36	46.2	47	47.5	61	57.6	56	51.4	64	54.2	60	51.7
	3.	15	19.2	10	10.1	14	13.2	15	13.8	19	16.1	17	14.7
	4.	8	10.3	7	7.1	8	7.6	6	5.5	12	10.2	8	6.9

TABLE 61--Continued

Attitude		North				West				South			
		Male		Female		Male		Female		Male		Female	
		#	%	#	%	#	%	#	%	#	%	#	%
Participating in the NYC has not improved my attitude toward work.[d]	1.	1	1.7	3	4.7	3	3.7	2	2.7	5	5.4	4	4.9
	2.	15	25.9	8	12.5	8	9.8	12	16.2	6	6.5	9	11.1
	3.	7	12.1	8	12.5	12	14.6	5	6.8	11	11.8	9	11.1
	4.	35	60.3	45	70.3	59	72.0	55	74.3	71	76.3	59	72.8
Participating in the NYC has improved my attitudes toward education.[d]	1.	24	30.4	26	26.8	33	30.8	40	36.7	35	30.4	37	31.6
	2.	30	38.0	46	47.4	45	42.1	51	46.8	52	45.2	54	46.2
	3.	12	15.2	13	13.4	19	17.8	8	7.3	22	19.1	18	15.4
	4.	13	16.5	12	12.4	10	9.4	10	9.2	6	5.2	8	6.8

NOTES: (a) 1 = I liked it very much
2 = I don't like it very much
3 = It's OK
4 = I don't like it at all

(b) 1 = very satisfied
2 = pretty satisfied
3 = not so satisfied
4 = definitely not satisfied

(c) 1 = a very good boss to work for
2 = a fairly good boss to work for
3 = not so good to work for
4 = bad to work for

(d) 1 = Strongly agree
2 = Agree
3 = Not sure
4 = Disagree or strongly disagree

(e) Percentages may not add to 100 due to rounding

However, it is important to point out that actual behavior did not always coincide with these generally positive attitudes and expectations. In general, as we have shown in Chapter V, positive labor market benefits coincide with positive labor market attitudes and expectations, especially for Negroes. However, there are zero or very small benefits related to high school graduation rates and years of school completed in contrast to the very positive expectations and judgments of the NYC sample. Thus, as pointed out with respect to the McNamara, et al. study discussed in Chapter I, attitudinal and expectational responses are not always a trustworthy tool for program evaluation. In fact, our judgment is that they are only a complement and never a substitute for evaluations based on actual behavior.

E. Summary

Regardless of the objective facts of their NYC work described in this chapter and the post-high school employment analyzed in previous chapters, the participants in the NYC programs evaluated their experience in the most enthusiastic terms. They were highly satisfied with their hourly wage rates, and they praised their supervisors.

Overwhelming majorities of the participants felt that their NYC participation would result in a better job in the future, and they were convinced that the program had improved their attitude toward education, toward work and toward themselves.

Although there were interesting differences in some of these responses by region, type of program, sex and ethnic origin, the similarities in the patterns of response were notable; and they added up to a very enthusiastic endorsement of the NYC program by those who had participated in it.

CHAPTER IX

SUMMARY AND CONCLUSIONS

Purpose. The principal purpose of this study is to evaluate the impact on high school students of the in-school and summer NYC programs, with special emphasis on testing the following questions:

1) Has participation in the NYC resulted in a reduction in dropout rates and increased completion of years of high school (including graduation)?

2) Has participation in the NYC resulted in more favorable employment experience and earnings after leaving high school?

A review has been made of other studies with somewhat similar objectives. It is concluded that these earlier studies leave unanswered the basic question as to whether the NYC is fulfilling its legislative objectives. The earlier studies are almost all restricted to particular communities and provide only a limited basis for a national evaluation. They generally fail to control adequately for differences in personal and family characteristics of the experimental (NYC) and control groups, thereby raising questions concerning the net effect of the NYC experience.

Methodology. The present study is based on an interview survey of 60 in-school and summer NYC programs, drawn from a national population of 1120 programs in operation during the 1965-66 and 1966-67 fiscal years inclusive. The sample was stratified equally among three geographic regions -- north, south, and west, thereby including American Indians and Mexican Americans. Names of NYC participants were randomly chosen within each ultimate sample unit -- usually one high school; members of a control sample were randomly selected from

rosters of high school students in the same units during the same time period. The control sample had to meet specifications of age and "disadvantaged" status, such as family income in relation to family size.

In addition to the personal interviews, a mail questionnaire was sent to NYC enrollees who had moved considerable distances from the selected program areas. Telephone contacts and interviews were also conducted in an effort to increase the response rate. The results of these survey approaches and reasons for nonresponse are indicated in Appendix IV.

Characteristics and Experience of NYC and Control Groups. When compared on the basis of such personal variables as age, sex, ethnic origin, family income and father's education, the NYC and control samples are seen to be similar, as one might expect from the methods of selection. However, since other variables, such as intelligence, motivation, personality, etc., have not been measured, there remains the possibility that the two samples were not drawn from the same population. A statistical test presented in this chapter indicates that they were not drawn from the same population, in spite of their objective similarities.

The descriptive cross-tabulations indicate that NYC enrollees, as compared with the control group, have completed more years of high school and have a higher probability of graduation. They also have a greater probability of going on to college or other post-high school training.

However, these educational benefits experienced by the NYC group are not matched by equivalent labor market benefits in the post-high school period. The cross-tabulations indicate that the control group has gained greater hourly wages and total earnings than the NYC group, in spite of a slightly lower level of employment and labor force participation. This is partly attributable to a longer period of availability in the labor market for the control group.

It should be borne in mind that the descriptive cross-tabulations do not reflect the interaction of variables, with appropriate weighting, as in the multivariate regression models presented in subsequent chapters.

Little difference is found between NYC and control groups in attitudes toward education, work, self-esteem, and the bases for advancement. Interesting differences are found, however, in attitudes classified by region, sex and ethnic origin.

Educational Effects. Utilizing weighted data and regression analysis, the study examined the following indexes of educational performance in relation to participation in the NYC program:

(1) Years of High School Completed and Probability of High School Graduation. For the total sample, and for males and females taken separately, the NYC program had no statistically significant effect on the number of high school grades completed or on the probability of graduation. These findings are contrary to the relationship found in the simple cross-tabulations of the data, but represent the main conclusion of the study for these two indexes of performance.

However, Negro NYC participants are 8.2 percent more likely to graduate than are their control group counterparts. This result is primarily due to the fact that Negro female NYC participants are about 12.5 percent more likely to graduate than are their control group counterparts. American Indian NYC participants are also more likely to graduate, but Mexican Americans in NYC are less likely to do so than Mexican Americans in the control group.

It is notable that the effect of the family income variable on student's high school graduation is zero or negative. This is contrary to the legisla-

tive intent that NYC programs would help to prevent dropouts among children of low income families. Family income was a principal criterion for NYC selection.

(2) College Attendance and Post-Secondary Education. For the total sample the NYC participant who graduated from high school is, on the average 12.55 percent more likely to attend college than those in the control group who graduated from high school. In addition, the NYC participants are 6.5 percent more likely than the control group to attend some type of post-secondary educational institution other than college.

When separate analyses are made by sex, it is found that the favorable results for college attendance among NYC participants apply only to males. Female NYC participants do not have enhanced probabilities of college attendance. Negro males in the NYC area are more likely to attend college than those in the control group. However, neither Mexican American nor American Indian NYC participants experience an increased probability of college attendance vis-a-vis their control group counterparts.

Finally, it is noted that the probability of graduation and college attendance is increased with increased tenure in the NYC programs.

Thus the educational effects of NYC participation are mixed. Overall, the regression analysis indicates that the program did not achieve its legislative intent of furthering high school graduation among children of low income families. And yet, the probabilities of graduation were enhanced for specific subgroups, most notably Negroes. And among NYC high school graduates the probabilities of further education were increased relative to those not in the NYC. The positive relationship of lengthier participation in NYC with probabilities of graduation also provides a hopeful note. But this finding may raise questions of which is cause and which effect.

We are thus led to speculation that merely providing high school jobs for low income students is not enough to prevent dropouts. Part-time jobs and small income from work may whet appetites for full-time jobs and larger incomes. An NYC job may encourage some to drop out of high school at the same time as it permits and motivates others to continue their education. The improved attitudes toward work reported by the NYC participants and the actual evidence of labor market benefits may facilitate the transition from school to work for some even before their graduation.

It is commonplace to say that intensive counselling must accompany manpower programs; but in the case of the NYC this need is clearly indicated. The NYC students' high school jobs will serve to further their education only if they are convinced that an even better job awaits them after additional years of schooling.. Without the inculcation of such beliefs, the mere provision of a job under the NYC may have negative as well as positive effects on the educational plans of teenagers from low income families.

Economic Costs. Both average costs and marginal costs for in-school and summer NYC projects have been estimated in this study. The statistical analysis leads to the conclusion that the most reliable social cost measures are cost estimates based on the total federal share. The federal share is a more reliable measure because many of the sponsor expenditures allocated to the program are either (a) joint costs, with zero marginal cost to Society; or (2) in kind, subject to arbitrary shadow pricing.

Average and marginal costs of in-school enrollment are consistently in the range from the high $330's to the low $400's for the federal share. Based on different methods of data aggregation, marginal costs for summer programs have

a wider relative range of variation. Based on a linear cost function, marginal costs for nine summer programs are $403 for the combined federal cost and sponsor share and $359 for the federal share alone. For those projects with an out-of-school component, linear marginal costs for summer enrollment are $260 for the federal plus sponsor share and $299 for the federal share.

Private direct costs of participating in the NYC program (added transportation or clothing costs, etc.) are estimated to be $7.80 per month for in-school participants; and about $28.94 per month for summer NYC enrollees. Private opportunity costs of participating in NYC are the costs of leisure foregone. These are measured by the money earnings gained in the NYC projects by the participants. These earnings also represent a benefit of the program to the participant; and if no other cost or benefit of participation accrued to the enrollee, his cost-benefit ratio would be equal to one. This measure of private cost, in terms of after-tax earnings is about $758 per NYC participant for the study sample.

Economic Benefits. The measures of social economic benefits used in this study are (1) total post-high school before-tax earnings, (2) employment status, as measured by the number of months of post-high school unemployment, and (3) employment status as measured by the number of months voluntarily out of the labor force after high school. Private benefits are measured by total post-high school after-tax earnings; and governmental benefits are measured by federal income tax and social security tax receipts.

Unlike the descriptive cross-tabulations, relating these benefit measures (independent variables) to only two or three independent variables at a time, (including NYC participation), the principal discussion of benefits in this study is based on multiple regression and correlation analysis. These tech-

niques control for the joint influence of a larger set of independent variables. They permit a more accurate estimate of the net effect of participation in the NYC.

It is found that participation in the NYC is associated with significant net monetary benefits. In the average period of 18.56 months of eligibility to be in the civilian labor force, the average NYC participant has a total gain in earnings of $831, or $45 per month, in comparison with his control group counterpart. Some sex ethnic groups benefit more than others. For example, Negroes benefit more than whites.

Since there is no statistically significant difference between the NYC and the control group in terms of total months unemployed or average hourly wage rates during the post-high school period, the earnings difference is mainly attributable to the fact that the control group has 2.30 months more of voluntary labor force withdrawal than the NYC group during the period.

Therefore it is reasonable to conclude that the NYC enhanced the earnings of its participants less by reducing unemployment or increasing productive skills (as measured by wage rates) than by encouraging greater labor force participation.

Net after-tax earnings of NYC participants (the measure of private benefits) are also found to be large and positive. However, federal governmental benefits, as measured by net tax benefits, do not accrue from the NYC as a whole. Certain groups, particularly Negro females, do return a net tax benefit.

In the analysis of net benefits by program type, it is found that the summer NYC program does not yield any net economic benefits. The in-school program yields greater net economic benefits than a combined in-school and summer program.

The maximum length of program participation in which net benefits are yielded is 12-13 months. After this period there is a loss of benefits.

These findings are consistent with the conclusion that the NYC's principal contribution is in orienting the disadvantaged student to a work context. The overwhelming majority of participants felt that the NYC program had given them a new appreciation of work. This may have increased their interest in seeking work and in staying at work after they left high school. Critics may be right in deploring the lack of training and skill acquisition in NYC programs. But earnings can be increased without new skills if enrollees are induced to increase their labor force participation.

Investment Analysis. The conclusions of the investment analysis of the Neighborhood Youth Corps are straightforward.

First, both the average and marginal net monetary benefits to the NYC program are large and statistically significant. This seems to be due mainly to the positive effects of the NYC program on Negroes, especially Negro females.

Positive, statistically significant monetary benefits accrue to the in-school program and to those participants who were enrolled in both an in-school and a summer NYC program component. But no statistically significant monetary benefits accrue to the summer only program.

Estimated private rates of return and net present values are generally larger than their respective social estimations. However, the private estimations follow the same general pattern as the social estimations with one exception: social monetary benefits accrue to Negro females but this group does not gain statistically significant private benefits. This creates a lack of coin-

cidence between efficient social and private economic behavior for this group. Negro females will likely invest less in themselves than what is socially desirable.

The NYC program as a whole does not yield net monetary benefits to the federal government in the form of increased income and social security taxes. However, Negroes and especially Negro females do contribute net tax benefits.

The social cost-effectiveness ratios for the total sample when the NYC program status variable is expressed in a scaled functional form are small but positive for both the probability of high school graduation and for the number of years of high school completed. Positive and large cost-effectiveness ratios exist for the total sample and for males with respect to the probability of college attendance and the probability of post-high school training other than college. In addition only Mexican Americans among the other sex and sex-ethnic groups benefit with respect to college attendance and only white males among these groups benefit with respect to the probability of acquiring post-high school training other than college.

Evaluation by the Participants. Regardless of the objective facts of their NYC work and their post-high school employment, the participants in the NYC programs evaluated their experience in the most enthusiastic terms. They were highly satisfied with the kind of work assigned to them in the NYC program; they were satisfied with their hourly wage rates; and they praised their supervisors.

Overwhelming majorities of the participants felt that their NYC participation would result in a better job in the future, and they were convinced that the program had improved their attitude toward education, toward work and toward themselves.

Although there were interesting differences in some of these responses by region, type of program, sex and ethnic origin, the similarities in the patterns of response were notable; and they added up to a very enthusiastic endorsement of the NYC program by those who had participated in it.

Policy Implications. One hesitates to draw far-reaching policy conclusions from a single study, even one that is national in scope. The control group is far from perfect (although it is no less perfect than controls used in almost all the manpower evaluations to date). However, policy recommendations are expected to flow from program evaluations, and some are made here:

(1) More intensive counselling should be included in NYC programs to channel participants' new attitudes toward work into post-high school labor markets. In the absence of such counselling NYC jobs might encourage dropouts.

(2) Study further the relationship between dropouts and family income, in order to determine whether criteria other than income should be considered for selection of NYC participants; study further to determine whether NYC-jobs approach is the best method for reducing dropouts of disadvantaged youth.

(3) Concentrate more of the resources of the NYC on Negroes since they appear to have gained more from the NYC than other ethnic groups in terms of educational attainment and post-high school earnings.

(4) Devote more time to training and skill acquisition in the NYC, so that economic gains can be made because of enhanced productivity and employability rather than only from increased labor force participation.

APPENDIX I: DESCRIPTION OF THE SAMPLE DESIGN

A Description of the Sample Design for a Cost-Effectiveness Analysis of the In-School and Summer Neighborhood Youth Corps

Prepared by Charles D. Palit
Wisconsin Survey Research Laboratory

A. Selection of the Experimental (NYC) Sample

The population of In-School and Summer NYC projects which were in operation during the 1966 and 1967 fiscal years was divided into three regional strata as follows: Stratum I contained the Pacific and Mountain states; Stratum II contained all the Northeast and North Central states; while Stratum III contained all the South Central and South Atlantic states. The definition of Pacific, Mountain, North Central, Northeast, South Central, and South Atlantic states is taken from the County and City Data Book, 1967, p. viii. There were 1,120 projects in operation during this period which had a total of 333,548 young people enrolled for one day or longer. The data source on which the definition of the population was based is BWA-0051-A Historical Detail Listing Neighborhood Youth Corps, Highlights of Monthly Sponsor Activity Reports, Based on BWTP-9 (NYC-9) Report Date: 31 May 1968.

Each stratum defines a specific domain of interest and for this reason the sampling design chosen attempts to obtain equal sample sizes from each stratum. This should not only result in the study producing equivalent detail in each stratum but should also significantly improve the chance of obtaining information of reasonable quality with respect to the Mexican-American and American Indian participants in the NYC projects.

Table AI-1 provides a summary of the sampling scheme to be used.

Table AI-1

	Stratum I	Stratum II	Stratum III
Stratum size	46,557	121,150	165,841
Expected number of sample points	300	300	300
Expected number of clusters/ projects to be selected	20	20	20
Number of projects in strata	241	515	364
Overall sampling rate	1/155.1	1/403.8	1/552.8

The 20 projects selected from each stratum were selected according to the technique whereby the probability of inclusion of the project in the sample is proportional to the size of the project (PPS technique).[1]

As indicated in Table AI-1 above, twenty program selections were made from each stratum with probability proportional to the number of people enrolled for one day or longer in the program during the fiscal years 1966 and 1967. Project selection was with replacement, that is, a project could be selected for the sample more than once. Projects containing one twentieth or more of the stratum's population were selected at least once with certainty, with the actual number of selections proportional to the size of the project. Projects containing less than 20 NYC enrollees were combined with the project

[1] See Leslie Kish, Survey Sampling, (New York: John Wiley and Sons, Inc.), 1965, Chapter 7.

immediately following for selection purposes, so that no selection could have less than 20 NYC enrollees associated with it.

For sub-selection of NYC enrollees from the sample projects a multi-stage procedure was used. First, the area covered by the project was split into several parts which we refer to as "ultimate areas." Each ultimate area contained at least 20 enrollees, and, as it turned out, was always defined in terms of a high school attendance area. Usually the ultimate area was one high school attendance area, but in some cases it was necessary to lump two or more high school attendance areas together to satisfy the criterion of at least 20 NYC enrollees per ultimate area. These sample ultimate areas were also selected with probability proportional to the number of NYC enrollees in the area, but this time without replacement so that each ultimate area could be selected only once. One ultimate area was selected from each sample project from each time the project was initially selected. The overall sampling rate used in each stratum called for the selection of 15 NYC enrollees from each ultimate area. Thus, in general, a three-stage selection procedure was used to select the NYC sample.

For each stratum the sampling equation for the design may be written as:

$$f = \frac{20M_i}{TM} \cdot \frac{C_{ij}}{M_i} \cdot \frac{f \cdot TM}{20C_{ij}}$$

Where

M_i = measure of size of the i^{th} program of the stratum,

= number of NYC enrollees in the program for fiscal years 1966 and 1967,

$TM = \Sigma M_i$

= total measure of size of the stratum,

C_{ij} = measure of size of the j^{th} ultimate area of the i^{th} program

= measure of NYC enrollees with home addresses in the i^{th} ultimate area of the i^{th} program, and

f = the overall sampling rate for the stratum, which was chosen so that the expected number of NYC enrollees selected from each ultimate area in the sample, that is,

$$C_{ij} \cdot \frac{f \cdot TM}{20C_{ij}} = \frac{f \cdot TM}{20} ,$$

was 15.

For six projects the total NYC enrollments were not available and for these projects the ultimate area selections were made with probability proportional to average NYC enrollments. For these areas 15 NYC enrollees were still selected from each ultimate area. This introduces a small change in the selection probability for the selected enrollees as explained below.

Instead of selecting the enrollee with probability f_h (where f_h is the overall sampling rate for the h^{th} stratum) we end up selecting the enrollee with probability,

$$\frac{\bar{C}_{ij}}{\Sigma_j \bar{C}_{ij}} \cdot \frac{M_i}{C_{ij}} \cdot f_h$$

Where

$\bar{C}_{ij}$ = the average enrollment of the j^{th} ultimate area of the i^{th} program and the other terms are defined as above.

To the extent that $\frac{\bar{C}_{ij}}{\Sigma_j \bar{C}_{ij}} \cdot \frac{M_i}{\bar{C}_i}$ does not equal one, there will be a bias. This means that if the sample is treated as a self-weighting sample, there will be a small bias in the finite population estimates. However, it is expected that this bias will be too small to have any noticeable effect on overall population estimates.

B. The Control Sample

The control sample was a sample of young people who legally qualified for the NYC projects in terms of family income and age during the period of the 1966 and 1967 fiscal years but who were never actually enrolled in the NYC program at any time. In selecting this sample we attempted to obtain a "matching" sample for the experimental sample. The match was accomplished on an area basis, that is, from each high school used to draw the experimental sample we drew control respondents which came from the same age cohort.

Ideally, we would like to randomly select the control sub-sample from each ultimate area. However, the cost of constructing a suitable frame for this would be exorbitant, so instead we selected a sample according to the procedure described below.

1. The high school from which the NYC sample of 15 enrollees was chosen was used as the locus for drawing the control sample.

2. A subjective estimate was made of the per cent of the school's population which was legally eligible for the NYC program for the time when the program was in operation. That per cent was called P.

3. Next, we systematically selected a sample from the school's records of size approximately $\frac{NP}{2000}$, where N is the total number of records and P is defined as above. The exact way in which this selection occurred depended on the way each school kept its enrollment records.

4. The sample was then screened to eliminate all legally ineligible students and students enrolled in the NYC program.

5. We then shuffled this remaining sample and interviewed the first ten legally eligible respondents which were located.

C. Deviations from Procedure

We were forced to deviate from these selection procedures for three programs. In one NYC program encompassing an entire county, three high schools in the county were eliminated from inclusion in the sample at the request of the County Superintendent of Schools. The reason given was that the three schools in question were already undergoing an extensive study of their NYC program. There were a total of 23 NYC participants in these three schools for a total program size of 267 NYC participants.

In one other geographic area which involved the selection of two ultimate areas from a given program, we were forced to select both samples on a judgment basis. The reason given was that the school district in question had already been studied to an excessive degree. For the overall program enrollment of 20,992 participants in this program, the judgment selection affected about 8,493 participants.

APPENDIX II: SAMPLE WEIGHTS

TABLE AII-1

SAMPLE WEIGHTS

Project Number	Weight	Project Number	Weight
1	00.23580888	17	00.76915413
2	00.23987080	18	00.98591874
3	00.39203838	19	00.73058114
4	00.50288510	20	01.44054800
5	01.04112813	21[b]	00.42883172
6	01.65024447	22	00.11597236
7	00.77403327	23	01.98651482
8	00.65038759	24	00.55588890
9	00.50897613	25	01.97042942
10	00.96344471	26	01.97042942
11	01.26475779	27	00.50179668
12	00.55808216	28	03.38568914
13	00.90877114	29	00.70890652
14	00.29631367	30	00.53310778
15	01.77152107	31	00.69665200
16[a]	00.04457538	32	01.49990875
16[a]	00.04457538	33	02.28758801
16[a]	00.04457538	34	01.50696718
16[a]	00.04457538	35[b]	00.22806974
16[a]	00.04457538	36	00.86052000
16[a]	00.04457538	37	00.55072855

TABLE AII-1 Continued

Project Number	Weight	Project Number	Weight
38	00.55072855	47	00.26685966
39	00.40643724	48	00.29065678
40[b]	00.44038075	49	01.54012230
41	01.62574898	50	00.61827236
42	00.29239765	51	00.91743163
43	00.13535828	52	01.23043355
44	00.18102230	53	00.64092604
45	00.40716498	54	01.24220830
46	00.43673364		

Notes: a) This project extended into the 1967-68 fiscal year. It was drawn into the sample six times.

b) This project was drawn into the sample two times.

c) This weight factor is the normalized value of the square root of the inverse of the probability that a project will be selected into the sample. See text in Chapter IV for a rationale for this weighting procedure.

APPENDIX III: PROJECTS INCLUDED IN THE STUDY SAMPLE

Project Number	Project Sponsor	City and State
	Stratum I	
S7-6005-30	Clark County School District	Las Vegas, Nevada
R7-6217-39	Lane County Intermediate Education District	Eugene, Oregon
R7-6254-51	Tacoma School District #10	Tacoma, Washington
T6-6600-06	Mesa County Community Action Council, Inc.	Grand Junction, Colorado
R6-6271-06	Colorado State Department of Education	Denver, Colorado
R7-6222-03	Governor's Office State of Arizona	Phoenix, Arizona
T7-6442-03	The Navaho Tribe by and Through the Office of Navaho Economic Opportunity	Fort Defiance, Arizona
R7-6245-05	Sacramento Unified School District	Sacramento, California
R7-6235-05	Office of the County Superintendent of Schools	San Bernardino, California
R7-6373-05	Kern County Joint Union High School District	Bakersfield, California
R6-6022-14	Lapwai School District #341	Lapwai, Idaho
R5-6311-33	Pueblo of Laguna	Laguna, New Mexico
R7-6315-05	Economic and Youth Opportunities Agency of Greater Los Angeles	Los Angeles, California
	Stratum II	
R1-6263-07	Catholic Youth Organization	Bridgeport, Connecticut
R1-6436-23	Cambridge Economic Opportunity Committee	Cambridge, Massachusetts
R1-6215-34	New York State Department of Labor	Albany, New York
R1-6244-34	Poughkeepsie City School	Poughkeepsie, New York

Project Number	Project Sponsor	City and State
	Stratum II-Continued	
R1-6247-48	Vermont State Board of Education	Montpelier, Vermont
R4-6224-15	Township High School District	Mt. Prospect, Illinois
R4-6263-15	Economic Opportunity Committee	East St. Louis, Illinois
R4-6304-15	Chicago Committe on Urban Opportunity	Chicago, Illinois
R4-6298-16	Elwood City Schools	Elwood, Indiana
R4-6267-16	Indiana Farmers Union	Indianapolis, Indiana
T4-6440-16	Lawrence Orange Washington Economic Development Corporation	Mitchell, Indiana
R4-6247-37	Dayton City School District	Dayton, Ohio
T4-6454-37	Port Clinton Board of Education	Port Clinton, Ohio
R2-6202-40	Delaware Valley Settlement Alliance	Philadelphia, Pennsylvania
R2-6203-40	Archbishop's Commission on Economic Opportunity Program	Philadelphia, Pennsylvania
R2-6248-40	Scranton School District	Scranton, Pennsylvania
R4-6228-24	Kent Intermediate School District	Grand Rapids, Michigan
S6-6019-29	Omaha Tribe of Nebraska	Macy, Nebraska
T6-6517-18	Division of Extension Kansas State University	Manhattan, Kansas
	Stratum III	
R2-6247-09	United Planning Organization	Washington, D. C.
R2-6299-35	Salisbury-Rowan Community Service Council, Inc.	Salisbury, North Carolina

Project Number	Project Sponsor	City and State
	Stratum III-Continued	
R5-7086-04	Arkansas Farmers Union	Little Rock, Arkansas
R5-6348-04	Arkansas Farmers Union	Little Rock, Arkansas
R5-6231-38	Eastern Oklahoma A & M College	Wilburton, Oklahoma
R5-6236-38	Southeastern State College	Durant, Oklahoma
S5-6014-46	Taylor County Schools	Abilene, Texas
S5-6046-46	Ward County	Monahans, Texas
R5-6299-46	San Saba County School Board	San Saba, Texas
R3-6202-01	Dekalb County Board of Education and Fort Payne City Schools	Fort Payne, Alabama
R3-6209-10	Manatee County Board of Public Instruction	Bradenton, Florida
R3-6260-10	Pinellas County Board of Public Instruction	Clearwater, Florida
R3-6219-11	Atlanta-Fulton Co. Boards of Education	Atlanta, Georgia
R3-6230-11	Walker County Board of Education	LaFayette, Georgia
R3-6232-11	Rome Board of Education	Rome, Georgia
R2-6302-52	Raleigh County Board of Education	Beckley, West Virginia
T2-6369-52	State Road Commission	Charleston, West Virginia
R3-5002-26	Mississippi Band of Choctaw Indians	Philadelphia, Mississippi

APPENDIX IV: FIELD INTERVIEWING REPORT

Field Interviewing Report

A. Step I. Field Interviewing

1. Control Group

As explained in Chapter II, the control sample was drawn from the same "ultimate area", that is, the high school or several high schools, from which the experimental sample was drawn. The control sample was of the same age and income and family size requirement as necessary for satisfying entrance requirements for the NYC program.

When the control group was selected, approximately twice as many potentially eligible students were selected as were needed for the desired sample of ten. From this initial list the interviewer attempted to locate, contact and hold interviews with ten eligible control persons.

However, in a few areas, after the interviewer ascertained the age or income of all the non-NYC students in the sample drawn, fewer than ten were found to be eligible because of the income requirement. In that case, a second control sample was drawn, and occasionally a third sample in order to obtain the necessary ten interviews.

The eligibility requirements defined the limits of the size of the control sample. It was not only the "refusal" or "non-response" factors which determined the final number of controls from each project but also the total number of persons who met the eligibility factors established.

Unlike the NYC sample, the size of the control sample could not substantially be changed or influenced by mail or telephone follow-up because the size of the control sample depended upon the total number of eligible persons in the ultimate area. This group was sampled until the necessary ten interviews were achieved or until the list of all eligible persons was exhausted.

As explained in Chapter II, the total number of eligible controls from a specific project was sometimes fewer than the desired ten because few if any persons in an ultimate area could be found who would qualify for the control group on income grounds since every person who did so had already been in the NYC program.

Even when the interviewer was allowed to depart from the income guideline by as much as $300 in total family income, there still remained a few cases in which the total number of persons interviewed for the control group was still fewer than 10.

Appendix Table 1-IV presents a numerical breakdown of the number of control questionnaires received, as well as refusals and non-eligibles found in the sample drawn.

2. NYC Group

For each of the 60 projects in the study, one or more interviewers were chosen to locate, contact, and interview the fifteen persons in the NYC sample drawn from the ultimate area of each specific project. Thus, the national NYC sample was comprised of 900 potential observations. When the interviewer could make no contact with a person in his NYC sample, the interviewer attempted to obtain the NYC participant's last known address.

Table 1-IV: Status Report on Field Surveys

Control Group

Sample Unit	Completed Interviews	Refusals	Non-eligibles	Dead Addresses
1	10			
2	10		30	
3	10		22	
4	7		10	
5	10		21	19
6	7	30	4	6
7	5	7	19	3
8	6		38	7
9	9	1		4
10	10			2
11	8			5
12	9	1	2	
13	10		53	
14	10		1	
15	10			
16[a]	6		9	
17[a]	9	7		30
18[a]	6		28	
19[a]	10		7	5
20[a]	15		9	
21	10		5	3
22	9		22	
23	10	2	12	13
24	6	2	3	5
25[b]	0		13	
26[b]	10		2	4

Table 1-IV (Con't)

Sample Unit	Completed Interviews	Refusals	Non-eligibles	Dead Addresses
27	10	3	1	72
28	10	1	1	
29	10	10	28	41
30	9		20	
32	10	8		7
33	5		15	7
34	6		43	
35	10		24	
36	6		7	7
37	10			
38	5	1	3	6
39	10		2	7
40[b]	7	4		22
41[b]	10		9	41
42	10		15	16
43	9		20	
45	9		24	28
46[b]	6	2	14	8
47[b]	10	2	7	17
48	8		30	
49	10		8	5
50	8		3	14
51	10	30	11	
52	7		84	
53	6	6	29	49
54	1		2	7
55	9			1
56	8		2	
57	2			5

Table 1-IV (Con't)

Sample Unit	Completed Interviews	Refusals	Non-eligibles	Dead Addresses
58	0		1	17
59	10			32
60	7	8	3	33
61	9	1	2	

[a]Sample was drawn from five schools within the area.

[b]Sample was drawn from two schools within the area.

After several attempts by the field interviewers to complete the questionnaire, persons still remained of the national NYC sample for whom attempts were to be made to locate and contact but who could not be reached for field interviews.

Appendix Table 2-IV gives the specific breakdown of the final number of NYC questionnaires obtained by personal interviews or mail questionnaires.

The following steps for obtaining questionnaires applies to the NYC group which, by the nature of the sample selection and the methodology available, lent itself to the processes of mail and telephone follow-up.

B. Step II. Mail Questionnaires

In an attempt to obtain the remaining questionnaires from those who did not respond to field interviewers, letters were sent directly to the persons in this sample or to their parents. In some cases those who did not respond to person-to-person interviews with field interviewers responded to the mail questionnaire by completing it or writing to explain that they would not complete the forms.

Eight follow-up letters with enclosed questionnaires were sent over a period of four months (June through October, 1969).

Nature of Letter -- The letter which was sent to each "non-respondent" explained the nature and purpose of the study and requested of the person that he complete and return the questionnaire. A self-addressed, stamped envelope with questionnaire accompanied each letter. An incentive payment of ten dollars was offered to each potential respondent.

Table 2-IV: Status Report on Field Surveys

NYC Experimental Group

	Personal Interviews				Mail Questionnaires		
		Non-Response					
Sample Unit	Completed Interviews	Refusals & Ineligibles	Distant Addressess	Dead Addresses	Number Mailed	Completed Questionnaires	Dead Addresses
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	10	1	4		4	3	1
2	12	3					
3	9		4	2	4	3	1
4	14			1			
5	4	2	6	3	6	3	3
6	9		6		6	4	2
7	7	1	3	4	3	3	
8	10		5		5	1	4
9	12	1	2		2	2	
10	9		6		6	3	3
11	8	2	3	2	3	2	1
12	11		4		4	2	2
13	12	3					
14	3		6	6	6	3	3
15	15						
16[a]	13		1	2	1	1	
17[a]	7	2	6		6	3	3
18[a]	8		7		7		7

Table 2-IV (Con't)

Sample Unit	Personal Interviews			Mail Questionnaires			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
19[a]	4		7	4	7	3	4
20[a]	27		2	1	2	1	1
21	8	3		4			
22	8		6	1	6	5	1
23	10			5			
24	9		4	2	4	2	2
25[b]	1	1	13		13	8	5
26[b]	9		2	4	2	1	1
27	4		6	5	6	2	4
28	12		3		3	3	
29	1	3	9	2	9	5	4
30	13		2		2		2
32	12			3			
33	6	3	3	3	3	2	1
34	14		1		1	1	
35	9			6			
36	3	3	6	3	6	4	2
37	10	5					
38	6	1	4	4	4	3	1
39	2		9	4	9	5	4
40[b]	14			1			
41[b]	15						
42	10			5			

Table 2-IV (Con't)

Sample Unit	Personal Interviews				Mail Questionnaires		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
43	12		3		3	1	2
45[b]	5		10		10	6	4
46[b]	5		4	6	4	3	1
47	7	1	7		7	1	6
48	6		8	1	8	3	5
49	11	1	3		3	3	
50	9		6		6	2	4
51	7		5	3	5	3	2
52	10	5					
53	8		4	3	4	1	3
54	13			2			
55	10			5			
56	15						
57	6		8	1	8	6	2
58	6		7	2	7		7
59	2		10	3	10	6	4
60	1	8	6		6	3	3
61	6	1	3	5	3	3	

[a]Sample was drawn from five schools within the area.

[b]Sample was drawn from two schools within the area.

Period of Follow-up Letters -- The first follow-up letters were sent in June, 1969. The last attempts at obtaining mail questionnaires were made in October, 1969. At the end of the firt three sets of follow-up letters, over 85 members of the NYC sample responded by completing the questionnaires or returning a letter explaining their reasons for not mailing in the questionnaire.

At the conclusion of data collection from mail questionnaires, there were "dead addresses," refusals, or no response for other reasons. A sub-sample was drawn from this group of non-respondents and telephone listings were then sought.

C. Step III. Telephone Follow-ups

Three attempts were made to obtain accurate telephone listings. Of 21 telephone numbers accessible, 15 accurate telephone numbers were obtained and telephone contact was made with these 15 respondents or their families.

Purpose -- In the telephone contact, the telephone interviewer offered to interview the member of the NYC group over the telephone or answer any questions the NYC participant might have when attempting to fill out the mail questionnaire himself. With three of the individuals in this remaining group of 15, the telephone interviewer further explained some of the questions in the questionnaire. The three telephone respondents then completed and returned their questionnaire by mail.

Results -- Of the 15 persons or families contacted by telephone, three completed and returned questionnaires, four refused to complete

a questionnaire, five were in the service overseas (two addresses were obtained from families), and three changes in residence were ascertained (new telephone numbers obtained from the parents).

For these 15 members of the telephone sample, as many as four telephone calls per person were made in an attempt to contact. Over 45 calls were made to locate and contact throughout October and November 1969. After a telephone contact, a follow-up letter was again written and mailed to the telephone respondent.

Refusals to be Interviewed -- The four non-respondents explained their refusals as follows: Non-respondent #1 dropped out of school and disliked doing any "paper work," especially questionnaires; the parents of non-respondent #2 did not want the young person to answer any questions in regard to family income or to reveal any employment information or history; non-respondent #3 was in the service and asked parents not to send questionnaire as time did not permit completing it; non-respondent #4 did not take the time to complete the questionnaire.

These four categories reflected as well the four groups into which the refusals by mail were given. There was no indication of consistent bias in terms of attitude difference toward the Neighborhood Youth Corps between respondents and non-respondents. Like the respondents, there were some non-respondents who communicated a positive attitude toward their NYC experience but for various reasons did not complete the questionnaire.

APPENDIX V: SUPPLEMENTARY TABLES

APPENDIX TABLE 1-V

ANALYSIS OF FACTORS INFLUENCING TOTAL COSTS, BY REGION NATIONAL SAMPLE OF IN-SCHOOL AND SUMMER NEIGHBORHOOD YOUTH CORPS PROJECTS BASED ON AVERAGE ENROLLMENT AT END OF MONTH, 1965-66 AND 1966-67 FISCAL YEARS, IN DOLLARS

Independent Variable	Region I: West		Region II: North		Region II: South	
	Federal and Sponsor Share	Federal Share	Federal and Sponsor Share	Federal Share	Federal and Sponsor Share	Federal Share
Intercept	-1,853,294[a]** (343,906)[b]	-1,236,773** (227,234)	-102,592 (99,328)	-96,199 (74,980)	-288,289 (543,515)	-239,385 (453,299)
Project Length in Months	188,702** (36,353)	127,400** (24,020)	5,890 (9,502)	8,836 (7,173)	32,978 (42,652)	26,570 (35,573)
In-School and Summer NYC Enrollment	-1,526** (159)	1,088** (105)	1,570** (149)	1,205** (112)	746* (261)	631* (217)
Out-of-School NYC Enrollment	-1,218 2,062	533 1,362	2,458* (853)	1,764* (644)	3,196* (1,201)	2,784* (1,002)
Number of Observations	20	20	20	20	20	20
S.E.E.	756,047	499,555	156,538	118,167	690,574	575,948
$\bar{R}^2$	.9822	.9840	.9942	.9943	.6753	.6906
F-Ratio	350.05	391.87	1096.57	1105.75	14.17	15.14

APPENDIX TABLE 1-V -- Continued

Notes: (a) partial regression coefficient.

(b) standard error of the partial regression coefficient.

S.E.E. is the standard error of the estimate.

$\bar{R}^2$ is the coefficient of multiple determination adjusted for degrees of freedom.

* = significant at the .05 level.

** = significant at the .01 level.

APPENDIX TABLE 2-V

ANALYSIS OF TOTAL COSTS, WEIGHTED NATIONAL SAMPLE OF IN-SCHOOL AND SUMMER NEIGHBORHOOD YOUTH CORPS PROJECTS, 1965-66 AND 1966-67 FISCAL YEARS, BY TYPE OF PROJECT: SUMMER ONLY AND IN-SCHOOL/SUMMER COMBINED, LOGARITHMIC FUNCTION

Independent Variable	In-School/Summer Combined		Summer Only	
	Federal and Sponsor Share	Federal Share	Federal and Sponsor Share	Federal Share
Weight Factor	.01989[a]	.01804	.33843	.31402
	(.03324)[b]	(.03168)	(.41124)	(.38278)
Project Length in Months	.70176**	.65414**	.37230	.24411
	(.11844)	(.11287)	(.34240)	(.31871)
Total In-School and/or Summer Enrollment	.98307**	.96979**	1.38627**	1.37678**
	(.05290)	(.05041)	(.09371)	(.08723)
Total Out-of-School Enrollment	.07596*	.08647*	-.17690	-.15843
	(.03426)	(.03265)	(.16720)	(.15564)
Number of Observations	49	49	9	9
S. E. E.	.12355	.11774	.40223	.37440
$\bar{R}^2$	.9887	.9892	.9633	.9653
F-ratio	4,036.11	4,227.00	298.70	323.12

Notes: a) partial regression coefficient.

b) standard error of the partial regression coefficient.

All the variables in each equation are expressed as logarithms and the partial regression coefficients are interpreted as percentages. Thus, for example, for the summer only projects, a one percent increase in total summer enrollment increases total federal cost by 1.386 percentage points.

S. E. E. is the standard error of the estimate.

$\bar{R}^2$ is the coefficient of multiple determination adjusted for degrees of freedom

* = significant at the .05 level.

** = significant at the .01 level.

APPENDIX TABLE 3-V

ANALYSIS OF TOTAL COSTS, WEIGHTED NATIONAL SAMPLE OF IN-SCHOOL AND SUMMER NEIGHBORHOOD YOUTH CORPS PROJECTS, 1965-66 AND 1966-67 FISCAL YEARS, BY TYPE OF PROJECT: WITH AND WITHOUT AN OUT-OF-SCHOOL COMPONENT, LOGARITHMIC FUNCTION

Independent Variable	No Out-of-School Component		With Out-of-School Component	
	Federal and Sponsor Share	Federal Share	Federal and Sponsor Share	Federal Share
Weight Factor	.07546[a]	.07742	.04204*	.00320
	(.12759)[b]	(.12486)	(.01402)	(.04217)
Project Length in Months	1.74834**	1.61329**	-.08152	.03287
	(.32915)	(.32211)	(.03155)	(.09488)
Total In-School Enrollment	-.12350	-.09717	.98497**	.88768
	(.13904)	(.13606)	(.02073)	(.06235)
Total Summer Enrollment	.99376**	.99037**	.11703**	.13053
	(.07946)	(.07776)	(.02540)	(.07638)
Total Out-of-School Enrollment	------	------	-.03094**	.00480
			(.00912)	(.02741)
Number of Observations	45	45	15	15
S. E. E.	.46483	.45488	.02188	.06578
$\bar{R}^2$	.8939	.8925	.9999	.9987
F-ratio	338.01	334.54	66,863.98	6,858.16

Notes: a) partial regression coefficient.

b) standard error of the partial regression coefficient.

All the variables in each equation are expressed as logarithms and the partial regression coefficients are interpreted as percentages. Thus, for example, for the projects with no out-of-school component, for a one percent increase in summer enrollment, federal and sponsor total costs increased .99 of one percent.

S. E. E. is the standard error of the estimate.

$\bar{R}^2$ is the coefficient of multiple determination adjusted for degrees of freedom.

* = significant at the .05 level.

** = significant at the .01 level.

APPENDIX TABLE 4-F

ANALYSIS OF TOTAL COSTS, NATIONAL SAMPLE OF IN-SCHOOL AND SUMMER NEIGHBORHOOD YOUTH CORPS PROJECTS, 1965-66 AND 1966-67 FISCAL YEARS, BY REGION, LOGARITHMIC FUNCTION

Independent Variable	Region I: West		Region II: North		Region III: South	
	Federal and Sponsor Share	Federal Share	Federal and Sponsor Share	Federal Share	Federal and Sponsor Share	Federal Share
Intercept	1.82394[a]**	1.77582**	2.56205**	2.37842**	1.85793**	1.86513**
	(.31423)[b]	(.31030)	(.47346)	(.51512)	(.47500)	(.47813)
Project Length in Months	-.37521	-.36651	-1.23338	-1.12578	-.00776	-.06066
	(.70903)	(.70016)	(.59665)	(.64905)	(.31974)	(.32184)
Total In-School Enrollment	.44088*	.41727*	.57382**	.56268**	.24896**	.24796**
	(.18996)	(.18758)	(.13060)	(.14209)	(.08516)	(.08572)
Total Summer Enrollment	.43394**	.43242**	.36055**	.37965**	.45849*	.44301*
	(.07628)	(.07532)	(.11691)	(.12720)	(.17570)	(.17686)
Total Out-of-School Enrollment	-.07480	-.04802	-.04333	.02218	.09828	.10744
	(.17815)	(.17592)	(.05185)	(.05641)	(.08933)	(.08992)
Number of Observations	20	20	20	20	20	20
S. E. E.	.36217	.35764	.22301	.24263	.32789	.33006
$\bar{R}^2$	.8655	.8619	.8927	.8748	.6666	.6592
F-ratio	31.56	30.64	40.54	34.18	10.50	10.18

Notes: a) partial regression coefficient.

b) standard error of the partial regression coefficient.

All the variables in each equation are expressed as logarithms and the partial regression coefficients are interpreted as percentages. Thus, for example, for Region I for Federal Share only, a one percent increase in total in-school enrollment increases federal costs by .42 of one percent.

S. E. E. is the standard error of the estimate.

$\bar{R}^2$ is the coefficient of multiple determination adjusted for degrees of freedom.

* = significant at the .05 level.

** = significant at the .01 level.

APPENDIX TABLE 5-V: ANALYSIS OF HIGH SCHOOL GRADUATION INCORPORATING I.Q. AS AN INDEPENDENT VARIABLE[a/]

Variable	Probability of Graduation Equation 1	Equation 2
Intercept	.3283[b]	.0611
	(.4229)	(.4083)
Status		
Control[b]		
NYC	.1141**	----
	(.0441)	
Months in NYC	----	.0184**
		(.0030)
Income Per Capita	-.0109	-.0088
Per Family	(.0078)	(.0075)
Farm Residence	-.0682	-.0308
	(.0846)	(.0813
Any Close Friends	-.3033**	-.3206**
Ever Drop Out?	(.0430)	(.0412)
Father's Education	.0238**	-.0190**
	(.0068)	(.0066)
Labor Market		
Metropolitan Economic Area:		
500,000 or more[c]		
Metropolitan Economic Area:		
More than 50,000 -- less	-.0104	-.0323
than 500,000	(.0949)	(.0917)
Rural Functional	.0063	.0421
Economic Area	(.1166)	(.1121)
Rural: Less than 2	.2958	.4907
persons/sq. mile	(.6994)	(.6741)
Male	.0286	.0517
	(.0419)	(.0404)
White[b]		
Negro	.2260*	.2173*
	(.0887)	(.0851)
American Indian	-.1643	-.2602
	(.1675)	(.1617)

APPENDIX TABLE 5-V -- CONTINUED

Variable	Probability of Graduation Equation	Equation 2
Mexican American	.0690 (.0726)	.0774 (.0687)
Puerto Rican[d]	----	----
Age	-.0017 (.0179)	-.0110 (.0173)
I. Q.	.0034* (.0015)	.0031* (.0014)
Number of Observations	413	413
S.E.E.	.3760	.3620
$\bar{R}^2$	.7778	.7941
F-Ratio	86.84	95.68

Notes: (a) Based on a sample of 432. Therefore, this sample is not representative of the entire sample included in other analyses of educational achievement.

(b) This is the partial regression coefficient. The number in parentheses is the standard error of the regression coefficient.

(c) This regressos enters the intercept term. The other regressors for this variable are interpreted as deviations from the regressor entering the intercept. Thus, for instance, the NYC participant is about 11 percent more likely to graduate from high school than his control group counterpart. The scaled variables in the equation show the effect on the dependent variable of a one unit change in the independent variable in question. Thus, for instance, a one point increase in I. Q. leads to a .3 of one percent increase in the likelihood of graduating from high school.

(c) There are no observations for this regressor.

S.E.E. is the standard error of the estimate.

$\bar{R}^2$ is the coefficient of determination adjusted for degrees of freedom.

* = significant at the .05 level.

APPENDIX TABLE 5-V

Notes: (Continued)

** = significant at the .01 level.

Note in these two models that the I. Q. variable has the expected sign with respect to the probability of high school graduation and that inclusion of this variable in the sub-sample does not destroy the statistical significance of NYC participation on the probability of high school graduation. Note also that equation 2 which expresses NYC participation as a scaled rather than a dummy variable improves the explanatory power of the model in terms of the standard error of the estimate, $\bar{R}^2$ and the F-Ratio.

APPENDIX TABLE 6-V: ANALYSIS OF THE LABOR MARKET PERFORMANCE OF THE NEGRO NEIGHBORHOOD YOUTH CORPS SAMPLE

Variable	Total Post-High School Before-Tax Earnings in Dollars W_1	Months Unemployed W_2	Months Voluntarily Out-of-Labor Force W_3
Weight Factor	110,460 (152,700)	-124.72 (154.38)	-198.23 (374.66)
Age	8,458 (15,403)	11.68 (15.57)	21.84 (37.79)
Age Squared	210 (389)	-.28 (.39)	-.52 (.95)
Year and Quarter Respondent Left School	-442* (172)	.05 (.17)	-1.58** (.42)
Total High School Work Experience, in Months	51 (102)	-.02 (.10)	-.01 (.25)
Marital Status			
Married[b]			
Single	3,318** (822)	.59 (.83)	4.58* (2.02)
Widowed, Separated, Divorced[c]	----	----	----
Father's Education	112 (137)	-.02 (.14)	.26 (.34)
Labor Market Area			
Metropolitan Economic Area: 500,000 or more[b]			
Metropolitan Economic Area: More than 50,000 -- less than 500,000	-320 (762)	1.39+ (.77)	-1.54 (1.87)
Rural Functional Economic Area	3,867 (3,872)	7.70+ (3.91)	-9.87 (9.50)
Rural: Less than 2 persons/sq. mile[c]	----	----	----

APPENDIX TABLE 6-V -- CONTINUED

Variable	Total Post-High School Before-Tax Earnings in Dollars W_1	Months Unemployed W_2	Months Voluntarily Out-of-Labor Force W_3
Male	1,668+ (847)	-.85 (.86)	-.02 (2.08)
Discriminant Function	-110* (48)	.04 (.05)	.30** (.12)
Number of Observations	96	96	96
S.E.E.	1,839	1.86	4.51
$\bar{R}^2$	.7367	.2092	.7783
F-Ratio	17.87	1.69	22.45

Notes: (a) This is the partial regression coefficient. The number in parentheses is the standard error of the regression coefficient.

(b) This regressor enters the intercept term. See Table 25 for the interpretation of dummy variables and scaled variables.

(c) No observations for this regressor.

S.E.E. is the standard error of the estimate.

$\bar{R}^2$ is the coefficient of determination adjusted for degrees of freedom.

+ = significant at the .10 level.

* = significant at the .05 level.

** = significant at the .01 level.

APPENDIX TABLE 7-V: ANALYSIS OF THE LABOR MARKET PERFORMANCE OF THE WHITE NEIGHBORHOOD YOUTH CORPS SAMPLE

Variable	Total Post-High School Before-Tax Earnings in Dollars W_1	Months Unemployed W_2	Months Voluntarily Out-of-Labor Force W_3
Weight Factor	111,800[a]	-85.86	-126.31
	(103,425)	(127.31)	(235.60)
Age	-9,510	8.15	16.11
	(10,185)	(12.54)	(23.20)
Age Squared	2.43	-.18	-.38
	(2.51)	(.31)	(.57)
Year and Quarter Respondent Left School	-381**	-.07	-1.15**
	(98)	(.12)	(.22)
Total High School Work Experience, in Months	54	-.09	-.23*
	(51)	(.06)	(.12)
Marital Status			
Married[b]			
Single	-146	2.47**	-5.33**
	(602)	(.74)	1.37
Widowed, Separated, Divorced	-4,737*	.28	7.91
	(2,268)	(2.79)	(5.17)
Father's Education	37	-.08	-.06
	(88)	(.11)	(.20)
Labor Market Area			
Metropolitan Economic Area: 500,000 or more[b]			
Metropolitan Economic Area: More than 50,000 -- less than 500,000	-651	.96	.29
	(912)	(1.12)	(2.08)
Rural Functional Economic Area	-225	.09	-.54
	(1,304)	(1.60)	(2.97)
Rural: Less than 2 persons/sq. mile	2,345	-.32	2.09
	(1,555)	(1.91)	(3.54)

APPENDIX TABLE 7-V -- CONTINUED

Variable	Total Post-High School Before-Tax Earnings in Dollars W_1	Months Unemployed W_2	Months Voluntarily Out-of-Labor Force W_3
Male	2,767**	-1.49*	-4.56**
	(544)	(.67)	(1.23)
Discriminant Function	-78*	-.02	.12
	(37)	(.04)	(.08)
Number of Observations	221	221	221
S.E.E.	2,010	4.94	9.13
$\bar{R}^2$	.5605	.2159	.6796
F-Ratio	20.41	4.41	33.94

Notes: (a) This is the partial regression coefficient. The number in parentheses is the standard error of the regression coefficient.

(b) This regressor enters the intercept term. See Table 25 for the interpretation of dummy variables and scaled variables.

S.E.E. is the standard error of the estimate.

$\bar{R}^2$ is the coefficient of determination adjusted for degrees of freedom.

* = significant at the .05 level.

** = significant at the .01 level.

APPENDIX TABLE 8-V: ANALYSIS OF THE LABOR MARKET PERFORMANCE OF THE NEGRO CONTROL SAMPLE

Variable	Total Post-High School Before-Tax Earnings in Dollars W_1	Months Unemployed	Months Voluntarily Out-of-Labor Force W_3
Weight Factor	88,411[a]	284.71*	404.17+
	(72,354)	(122.05)	(223.04)
Age	-7,662	-27.22*	46.48*
	(6,970)	(11.76)	(21.48)
Age Squared	199	.65*	-1.15*
	(168)	(.28)	(.52)
Year and Quarter Respondent	-375**	-.02	-1.74**
	(84)	(.14)	(.26)
Total High School Work Experience, in Months	53	-.09	-.11
	(48)	(.08)	(.15)
Marital Status			
Married[b]			
Single	187	-.53	.59
	(885)	(1.49)	(2.73)
Widowed, Separated, Divorced	4,188*	-3.50	-3.37
	(1,937)	(3.27)	(5.97)
Father's Education	60	-.01	-.19
	(54)	(.09)	(.17)
Labor Market Area			
Metropolitan Economic Area: 500,000 or more[b]			
Metropolitan Economic Area: More than 50,000 -- less than 500,000	-1,346+	2.69*	6.66**
	(790)	(1.33)	(2.44)
Rural Functional Economic Area	-1,576	3.16	1.62
	(6,324)	(10.67)	(19.50)
Rural: Less than 2 persons/sq. mile[c]	----	----	----

APPENDIX TABLE 8-V -- CONTINUED

Variable	Total Post-High School Before-Tax Earnings in Dollars W_1	Months Unemployed W_2	Months Voluntarily Out-of-Labor Force W_3
Male	188 (798)	1.69 (1.34)	-1.31 (2.46)
Discriminant Function	-19 (12)	.04+ (.02)	.02 (.04)
Number of Observations	70	70	70
S.E.E.	1,831	3.09	5.64
$\bar{R}^2$	.7957	.4844	.8140
F-Ratio	17.08	4.12	19.19

Notes: (a) This is the partial regression coefficient. The number in parentheses is the standard error of the regression coefficient.

(b) This regressor enters the intercept term. See Table 25 for the interpretation of dummy variables and scaled variables.

(c) No observations for this regressor.

$\bar{R}^2$ is the coefficient of determination adjusted for degrees of freedom.

+ = significant at the .10 level.

* = significant at the .05 level.

** = significant at the .01 level.

APPENDIX TABLE 9-V: ANALYSIS OF THE LABOR MARKET PERFORMANCE OF THE WHITE CONTROL SAMPLE

Variable	Total Post-High School Before-Tax Earnings in Dollars W_1	Months Unemployed W_2	Months Voluntarily Out-of-Labor Force W_3
Weight Factor	-102[a]	65.70	170.95
	(69,580)	(78.37)	(203.18)
Age	809	-5.10	-9.97
	(6,838)	(7.70)	(19.97)
Age Squared	-13	.10	.24
	(168)	(.19)	(.49)
Year and Quarter Respondent Left School	-47	-.16*	-2.05**
	(70)	(.08)	(.20)
Total High School Work Experience, in Months	-64*	-.02	-.16+
	(28)	(.03)	(.08)
Marital Status			
Married[b]			
Single	1,282+	.03	-7.00**
	(694)	(.78)	(2.03)
Widowed, Separated, Divorced	-1,202	23.41**	-11.16+
	(2,060)	(2.32)	(6.02)
Father's Education	-161	.02	.76
	(111)	(.12)	(.32)
Labor Market Area			
Metropolitan Economic Area: 500,000 or more[b]			
Metropolitan Economic Area: More than 50,000 - less than 500,000	-4,905**	1.60	3.03
	(1,027)	(1.16)	(3.00)
Rural Functional Economic Area	-3,960**	-.10	-.90
	(1,237)	(1.39)	(3.61)
Rural: Less than 2 persons/sq. mile	-3,894*	2.16	1.13
	(1,518)	(1.71)	(4.43)

APPENDIX TABLE 9-V -- CONTINUED

Variable	Total Post-High School Before-Tax Earnings in Dollars W_1	Months Unemployed W_2	Months Voluntarily Out-of-Labor Force W_3
Male	1,538*	.48	-2.38
	(637)	(.72)	(1.86)
Discriminant Function	-25*	.01	.05
	(10)	(.01)	(.03)
Number of Observations	177	177	177
S.E.E.	4,013	4.52	11.72
$\bar{R}^2$	.5892	.4894	.7178
F-Ratio	18.10	12.09	32.09

Notes: (a) This is the partial regression coefficient. The number in parentheses is the standard error of the regression coefficient.

(b) This regressor enters the intercept term. See Table 25 for the interpretation of dummy variables and scaled variables.

S.E.E. is the standard error of the estimate.

$\bar{R}^2$ is the coefficient of determination adjusted for degrees of freedom.

+ = significant at the .10 level.

* = significant at the .05 level.

** = significant at the .01 level.

APPENDIX TABLE 10-V: ANALYSIS OF THE LABOR MARKET PERFORMANCE OF THE FEMALE NEIGHBORHOOD YOUTH CORPS SAMPLE

Variable	Total Post-High School Before-Tax Earnings in Dollars W_1	Months Unemployed W_2	Months Voluntarily Out-of-Labor Force W_3
Weight Factor	-142,266[a]**	602.33**	1,126.33**
	(45,607)	(127.53)	(159.68)
Age	14,251**	60.60**	-104.35
	(4,380)	(12.25)	(15.33)
Age Squared	-337**	-1.51**	2.56**
	(105)	(.29)	(.37)
Year and Quarter Respondent Left School	-152*	-.67**	-1.62**
	(67)	(.19)	(.23)
Total High School Work Experience, in Months	72+	.06	-.20
	(38)	(.10)	(.13)
Marital Status			
Married[b]			
Single	517	2.72*	-6.16**
	(439)	(1.23)	(1.54)
Widowed, Separated, Divorced	-580	13.11**	-12.78**
	(1,157)	(3.24)	(4.05)
Father's Education	22	.21	-.08
	(63)	(.18)	(.22)
Labor Market Area			
Metropolitan Economic Area: 500,000 or more[b]			
Metropolitan Economic Area: More than 50,000 -- less than 500,000	1,368	2.42	4.75*
	(628)	(1.76)	(2.20)
Rural Functional Economic Area	-562	-1.99	4.59
	(917)	(2.56)	(3.21)
Rural: Less than 2 persons/sq. mile	155	-8.41**	10.83**
	(1,088)	(3.04)	(3.81)

APPENDIX TABLE 10-V -- Continued

Variable	Total Post-High School Before-Tax Earnings in Dollars W_1	Months Unemployed W_2	Months Voluntarily Out-of-Labor Force W_3
Ethnic Origin			
White[b]			
Negro	856	-1.54	1.69
	(724)	(2.02)	(2.54)
American Indian	-1,141	12.73	-8.57**
	(772)	(2.16)	(2.70)
Mexican American	-1,091	1.02	3.32
	(738)	(2.06)	(2.58)
Puerto Rican	4,408*	-8.03	-2.90
	(2,183)	(6.10)	(7.64)
Discriminant Function	-3	.20*	-.10
	(33)	(.09)	(.12)
Number of Observations	212	212	212
S. E. E.	2,768	7.74	9.69
$\bar{R}^2$	.5939	.4929	.7930
F-Ratio	17.92	11.90	46.93

Notes: (a) This is the partial regression coefficient. The number in parentheses is the standard error of the regression coefficient.

(b) This regressor enters the intercept term. See Table 25 for the interpretation of dummy variables and scaled variables.

S. E. E. is the standard error of the estimate.

$\bar{R}^2$ is the coefficient of determination adjusted for degrees of freedom.

+ = significant at the .10 level.

* = significant at the .05 level.

** = significant at the .01 level.

APPENDIX TABLE 11-V: ANALYSIS OF THE LABOR MARKET PERFORMANCE OF THE MALE NEIGHBORHOOD YOUTH CORPS SAMPLE

Variable	Total Post-High School Before-Tax Earnings in Dollars W_1	Months Unemployed W_2	Months Voluntarily Out-of-Labor Force W_3
Weight Factor	214,699[a*]	-72.02	-413.91[+]
	(111,339)	(60.22)	(214.34)
Age	-19,392[+]	5.97	45.29*
	(11,079)	(5.99)	(21.32)
Age Squared	496[+]	-.13	-1.11*
	(275)	(.15)	(.53)
Year and Quarter Respondent Left School	-324**	.24**	-1.30**
	(118)	(.06)	(.23)
Total High School Work Experience, in Months	-9	-.08*	-.21
	(74)	(.04)	(.14)
Marital Status			
Married[b]			
Single	-2,688**	.48	-.26
	(770)	(.42)	(1.48)
Widowed, Separated, Divorced	-5,709	-.41	3.58
	(3,850)	(2.08)	(7.41)
Father's Education	-57	.02	.36
	(126)	(.07)	(.24)
Labor Market Area			
Metropolitan Economic Area: 500,000 or more[b]			
Metropolitan Economic Area: More than 50,000 -- less than 500,000	-378	.36	-5.42*
	(1,195)	(.65)	(2.30)
Rural Functional Economic Area	609	.50	-3.00
	(1,618)	(.88)	(3.11)
Rural: Less than 2 persons/ sq. mile	3,061	.30	-4.47
	(1,918)	(1.04)	(3.69)

APPENDIX TABLE 11-V -- CONTINUED

Variable	Total Post-High School Before-Tax Earnings in Dollars W_1	Months Unemployed W_2	Months Voluntarily Out-of-Labor Force W_3
Ethnic Origin:			
White[b]			
Negro	324	-.04	1.10
	(1,407)	(.76)	(2.71)
American Indian	-6,104**	1.26	12.41**
	(1,495)	(.81)	(2.88)
Mexican American	-2,316*	-.71	.02
	(1,078)	(.58)	(2.08)
Puerto Rican	9,091	24.19**	-21.95*
	(4,446)	(2.40)	(8.55)
Discriminant Function	-127**	-.00	.03
	(40)	(.02)	(.08)
Number of Observations	176	176	176
S.E.E.	3,708	2.00	7.14
$\bar{R}^2$	.6195	.5216	.6619
F-Ratio	16.28	10.90	19.58

Notes: (a) This is the partial regression coefficient. The number in parentheses is the standard error of the regression coefficient.

(b) This regressor enters the intercept terms. See Table 25 for the interpretation of dummy variables and scaled variables.

S.E.E. is the standard error of the estimate.

$\bar{R}^2$ is the coefficient of determination adjusted for degrees of freedom.

+ = significant at the .10 level.

* = significant at the .05 level.

** = significant at the .01 level.

APPENDIX TABLE 12-V: ANALYSIS OF THE LABOR MARKET PERFORMANCE OF THE TOTAL NEIGHBORHOOD YOUTH CORPS SAMPLE

Variable	Total Post-High School Before-Tax Earnings in Dollars W_1	Months Unemployed W_2	Months Voluntarily Out-of-Labor Force W_3
Weight Factor	-40,968[a]	-339.42**	612.05**
	(43,184)	(83.62)	(120.25)
Age	5,279	35.13**	-55.87**
	(4,212)	(8.16)	(11.73)
Age Squared	-122	-.89**	1.40**
	(102)	(.20)	(.28)
Year and Quarter Respondent Left School	-227**	-.46**	-1.37**
	(61)	(.12)	(.17)
Total High School Work Experience, in Months	16	-.05	-.09
	(35)	(.07)	(.10)
Marital Status			
Married[b]			
Single	-613	1.45+	-4.24**
	(405)	(.78)	(1.13)
Widowed, Separated, Divorced	-864	11.29**	-12.71**
	(1,241)	(2.40)	(3.46)
Father's Education	-10	.18	-.14
	(59)	(.11)	(.16)
Labor Market Area			
Metropolitan Economic Area: 500,000 or more[b]			
Metropolitan Economic Area: More than 50,000 -- less than 500,000	-759	2.20+	.28
	(612)	(1.18)	(1.70)
Rural Functional Economic Area	316	.22	-.22
	(860)	(1.66)	(2.40)
Rural: Less than 2 persons/sq. mile	1,391	-3.28+	4.15
	(1,029)	(1.99)	(2.86)

APPENDIX TABLE 12-V--Continued

Variable	Total Post-High School Before-Tax Earnings in Dollars W_1	Months Unemployed W_2	Months Voluntarily Out-of-Labor Labor Force W_3
Ethnic Origin			
White[b]	870	-.88	.36
Negro	(708)	(1.37)	(1.97)
American Indian	-2,900**	8.84**	-.08
	(734)	(1.42)	(2.04)
Mexican American	-1,634**	.32	1.45
	(610)	(1.18)	(1.70)
Puerto Rican	8,217**	-1.70	-13.13
	(2,105)	(4.08)	(5.86)
Male	2,286**	-1.94**	-3.42**
	(387)	(.75)	(1.08)
Discriminant Function	-79**	.08	.01
	(26)	(.05)	(.07)
Number of observations	388	388	388
S. E. E.	3,346	6.48	9.32
$\bar{R}^2$	.5619	.3645	.7152
F-Ratio	27.99	12.52	54.81

Notes: (a) This is the partial regression coefficient. The number in parentheses is the standard error of the regression coefficient.

(b) This regressor enters the intercept term. See Table 25 for the interpretation of dummy variables and scaled variables.

S.E.E. is the standard error of the estimate.

$\bar{R}^2$ is the coefficient of determination adjusted for degrees of freedom.

+ = significant at the .10 level.

* = sifnificant at the .05 level.

** = significant at the .01 level.

APPENDIX TABLE 13-V: ANALYSIS OF LABOR MARKET PERFORMANCE OF THE FEMALE CONTROL SAMPLE

Variable	Total Post-High School Before-Tax Earnings in Dollars W_1	Months Unemployed W_2	Months Voluntarily Out-of-Labor Force W_3
Weight Factor	-33,035[a]	276.76*	122.81
	(54.498)	(114.93)	(197.18)
Age	3,472	-25.93*	-4.62
	(5,438)	(11.47)	(19.68)
Age Squared	-78	.62*	.14
	(135)	(.28)	(.49)
Year and Quarter Respondent Left School	-54	-.24*	2.42**
	(56)	(.12)	(.20)
Total High School Work Experience, in Months	-23	-.04	.30*
	(14)	(.09)	(.15)
Marital Status			
Married[b]			
Single	2,066**	.58	-8.15**
	(492)	(1.04)	(1.78)
Widowed, Separated, Divorced	-473	11.45**	-17.53**
	(900)	(1.90)	(3.26)
Father's Education	132	-.01	.95**
	(92)	(.19)	(.33)
Labor Market Area			
Metropolitan Economic Area: 500,000 or more[b]			
Metropolitan Economic Area: More than 50,000 -- less than 500,000	-2,141**	.35	5.37*
	(740)	(1.56)	(2.68)
Rural Functional Economic Area	-1,255	-2.62	5.15
	(951)	(2.00)	(3.44)
Rural: Less than 2 persons/sq. mile	-463	-1.99	21.01**
	(1,379)	(2.91)	(4.99)

APPENDIX TABLE 13-V -- CONTINUED

Variable	Total Post-High School Before-Tax Earnings in Dollars W_1	Months Unemployed W_2	Months Voluntarily Out-of Labor Force W_3
Ethnic Origin			
White[b]			
Negro	9	.22	-1.09
	(763)	(1.61)	(2.76)
American Indian	-772	-6.27**	-5.25+
	(866)	(1.83)	(3.14)
Mexican American	2,063*	5.19*	14.40**
	(1,049)	(2.14)	(3.67)
Puerto Rican[c]	----	----	----
Discriminant Function	-23**	.01	.16**
	(8)	(.02)	(.03)
Number of Observations	153	153	153
S.E.E.	2,376	5.01	8.60
$\bar{R}^2$	.7323	.4385	.8855
F-Ratio	23.42	6.69	66.22

Notes: (a) This is the partial regression coefficient. The number in parentheses is the standard error the regression coefficient.

(b) This regressor enters the intercept term. See Table 25 for the interpretation of dummy variables and scaled variables.

(c) No observations for this regressor.

S.E.E. is the standard error of the estimate.

$\bar{R}^2$ is the coefficient of determination adjusted for degrees of freedom.

+ = significant at the .10 level.

* = significant at the .05 level.

** = significant at the .01 level.

APPENDIX TABLE 14-V: ANALYSIS OF THE LABOR MARKET PERFORMANCE OF THE MALE CONTROL SAMPLE

Variable	Total Post-High School Before-Tax Earnings in Dollars W_1	Months Unemployed W_2	Months Voluntarily Out-of-Labor Force W_3
Weight Factor	117,450[a]	42.98	-71.56
	(90,187)	(75.48)	(176.75)
Age	-9,637	-3.04	9.37
	(8,704)	(7.28)	(17.06)
Age Squared	237	-.05	-.22
	(211)	(.18)	(.41)
Year and Quarter Respondent Left School	-305**	-.17+	-.60**
	(108)	(.09)	(.21)
Total High School Work Experience, in Months	-56+	-.02	-.18**
	(31)	(.02)	(.06)
Marital Status			
Married[b]			
Single	-1,467	-.77	4.01*
	(1,030)	(.86)	(2.02)
Widowed, Separated, Divorced	7,957	-.85	-8.93
	(6,043)	(5.06)	(11.84)
Father's Education	28	.04	.00
	(96)	(.08)	(.19)
Labor Market Area			
Metropolitan Economic Area: 500,000 or more[b]			
Metropolitan Economic Area: More than 50,000 -- less than 500,000	-4,172**	2.51*	-.50
	(1,227)	(1.03)	(2.40)
Rural Functional Economic Area	-5,797**	1.28	2.96
	(1,659)	(1.39)	(3.25)
Rural: Less than 2 persons/sq. mile	-4,392*	5.19**	-4.52
	(1,918)	(1.60)	(3.76)

APPENDIX TABLE 14-V -- CONTINUED

Variable	Total Post-High School Before-Tax Earnings in Dollars W_1	Months Unemployed W_2	Months Voluntarily Out-of-Labor Force W_3
Ethnic Origin			
White[b]			
Negro	-2,350^{+}	3.54**	3.66
	(1,298)	(1.09)	(2.54)
American Indian	-15	-3.92	-2.82
	(16,207)	(13.56)	(31.76)
Mexican American	923	.30	-2.10
	(1,720)	(1.44)	(3.37)
Puerto Rican[c]	----	----	----
Discriminant Function	-22	.01	-.03
	(13)	(.01)	(.03)
Number of Observations	135	135	135
S.E.E.	4,128	3.45	8.09
$\bar{R}^2$	.6050	.2915	.5682
F-Ratio	11.39	3.06	9.79

Notes: (a) This is the partial regression coefficient. The number in parentheses is the standard error of the regression coefficient.

(b) This regressor enters the intercept term. See Table 25 for the interpretation of dummy variables and scaled variables.

(c) No observations for this regressor.

S.E.E. is the standard error of the estimate.

$\bar{R}^2$ is the coefficient of determination adjusted for degrees of freedom.

+ = significant at the .10 level.

* = significant at the .05 level.

** = significant at the .01 level.

APPENDIX TABLE 15-V: ANALYSIS OF THE LABOR MARKET PERFORMANCE OF THE TOTAL CONTROL SAMPLE

Variable	Total Post-High School Before-Tax Earnings in Dollars W_1	Months Unemployed W_2	Months Voluntarily Out-of-Labor Force W_3
Weight Factor	40,612[a]	105.02	101.42
	(52,137)	(66.93)	(154.08)
Age	-3,284	-9.02	-2.94
	(5,125)	(6.56)	(15.10)
Age Squared	86	.20	-.07
	(125)	(.16)	(.37)
Year and Quarter Respondent Left School	-81	-.23**	2.06**
	(54)	(.07)	(.16)
Total High School Work Experience, in Months	-46*	-.04	-.16*
	(22)	(.03)	(.06)
Marital Status			
Married[b]			
Single	834+	.32	-5.91**
	(500)	(.64)	(1.47)
Widowed, Separated, Divorced	-459	11.01**	-18.73**
	(1,222)	(1.56)	(3.60)
Father's Education	-5	-.06	.32+
	(63)	(.08)	(.18)
Labor Market Area			
Metropolitan Economic Area: 500,000 or more[b]			
Metropolitan Economic Area: More than 50,000 -- less	-3,773**	1.87*	4.06*
	(690)	(.88)	(2.03)
Rural Functional Economic Area	-3,572**	-.02	.35
	(925)	(1.18)	(2.72)
Rural: Less than 2 persons/sq. mile	-3,408**	3.04*	4.87
	(1,174)	(1.50)	(3.46)

APPENDIX TABLE 15-V -- CONTINUED

Variable	Total Post-High School Before-Tax Earnings in Dollars W_1	Months Unemployed W_2	Months Voluntarily Out-of-Labor Force W_3
Ethnic Origin:			
White[b]			
Negro	-1,586*	2.00*	2.24
	(734)	(.94)	(2.16)
American Indian	-1,234	-7.26**	2.89
	(1,163)	(1.49)	(3.42)
Mexican American	833	2.94*	-1.51
	(912)	(1.17)	(2.69)
Puerto Rican[c]	----	----	----
Male	1,402**	-.00	-1.40
	(469)	(.60)	(1.38)
Discriminant Function	-26**	.01	.00
	(8)	(.01)	(.04)
Number of Observations	288	288	288
S.E.E.	3,454	4.42	10.17
$\bar{R}^2$	.5971	.3495	.7367
F-Ratio	23.62	8.57	44.60

Notes: (a) This is the partial regression coefficient. The number in parentheses is the standard error the regression coefficients.

(b) This regressor enters the intercept term. See Table 25 for the interpretation of dummy variables and scaled variables.

(c) No observations for this regressor.

S.E.E. is the standard error of the estimate.

$\bar{R}^2$ is the coefficient of determination adjusted for degrees of freedom.

APPENDIX TABLE 15-V -- CONTINUED

Notes: (Continued)

+ = significant at the .10 level.

* = significant at the .05 level.

** = significant at the .10 level.

APPENDIX TABLE 16-V

LABOR MARKET PERFORMANCE: TOTAL POST-HIGH SCHOOL BEFORE TAX EARNINGS; IN-SCHOOL ONLY, SUMMER ONLY AND COMBINED IN-SCHOOL-SUMMER SAMPLE GROUPS,[a] IN DOLLARS.

Variable	In-School Only	Summer Only	In-School and Summer Combined
Weight Factor	18,636[c] (42,615)	-17,068 (42,512)	9,030 (43,725)
Status			
Control[b]			
NYC	908** (422)	547 (492)	784+ (475)
Age	2,189 (4,146)	1,509 (4,114)	-304 (4,294)
Age Squared	-45 (101)	-16 (100)	13 (105)
Year and Quarter Respondent Left School	-67 (46)	11 (62)	-98* (45)
Total High School Work Experience, in Months	-10 (18)	16 (31)	-45* (20)
Marital Status			
Married[b]			
Single	149 (419)	-438 (462)	788* (388)
Widowed, Separated, Divorced	-903 (991)	1,466 (1,532)	-1,144 (1,228)
Father's Education	-13 (52)	-52 (59)	-62 (53)

APPENDIX TABLE 16-V -- CONTINUED

Variable	In-School Only	Summer Only	In-School and Summer Combined
Labor Market Area			
Metropolitan Economic Area: 500,000 or more[b]			
Metropolitan Economic Area: More than 50,000-less than 500,000	-1,749*	-2,656**	-1,022+
	(558)	(864)	(591)
Rural Functional Economic Area	-1,496+	-1,553	-1,050
	(826)	(1,261)	(763)
Rural: Less than 2 persons/sq. mile	-285	-1,593	-417
	(830)	(1,261)	(1,031)
Male	1,168**	1,558**	1,346**
	(411)	(415)	(386)
Ethnic Origin			
White[b]			
Negro	-140	277	-192
	(577)	(843)	(607)
American Indian	-2,506**	-1,892*	-893
	(861)	(875)	(1,209)
Ethnic Origin			
Mexican American	249	-948	-1,217+
Puerto Rican	----d	9,427e**	3,005
		(3,392)	(2,244)
Discriminant Function	-14+	-38**	-24**
	(8)	(9)	(7)

APPENDIX TABLE 16-V -- CONTINUED

Variable	In-School Only	Summer Only	In-School and Summer Combined
Number of Observations	437	308	354
S.E.E.	3,116	3,649	3,027
$\bar{R}^2$	.5678	.5761	.6021
F-Ratio	30.59	21.89	28.25

Notes: (a) In-School Only = those participants who enrolled only as an in-school NYC participant; Summer Only = those participants who enrolled only as a summer NYC participant; In-School and Summer Combined = those participants who enrolled both as an in-school and a summer NYC participant.

(b) This regressor enters the intercept term. See Table 25 for the interpretation of dummy variables and scaled variables.

(c) This is the partial regression coefficient. The number in parentheses is the standard error of the partial regression coefficient.

(d) No observations for this regressor.

(e) There are only 1.5 weighted observations for this regressor.

S.E.E. is the standard error of the estimate.

$\bar{R}^2$ is the coefficient of determination adjusted for degrees of freedom.

+ = significant at the .10 level.

* = significant at the .05 level.

** = significant at the .01 level.

Appendix Table 17-V

LABOR MARKET PERFORMANCE, TOTAL MONTHS UNEMPLOYED AND TOTAL MONTHS VOLUNTARILY OUT-OF-THE LABOR FORCE, IN-SCHOOL ONLY, SUMMER ONLY AND COMBINED IN-SCHOOL-SUMMER SAMPLE GROUPS[a]

	In-School Only		Summer Only		In School and Summer Combined	
	Months Unemployed	Months Voluntarily Withdrawn From Labor Force	Months Unemployed	Months Voluntarily Withdrawn From Labor Force	Months Unemployed	Months Voluntarily Withdrawn From Labor Force
Weight Factor	39.46[c]	-28.49	-165.34*	401.56**	80.29	105.26
	(66.71)	(122.43)	(78.00)	(132.66)	(53.31)	(139.76)
Status Control[b] NYC	-.25	-3.80**	.41	-.81	-1.36*	-3.78*
	(.66)	(1.21)	(.90)	(1.53)	(.58)	(1.52)
Age	-3.79	9.87	18.94*	-31.05*	-6.86	-3.68
	(6.49)	(11.91)	(7.55)	(12.84)	(5.24)	(13.72)
Age Squared	.10	-.24	-.51**	.74*	.16	.09
	(.16)	(.29)	(.18)	(.31)	(.13)	(.37)
Year and Quarter Respondent Left School	-.07	-1.93**	-.53**	-2.26**	-.13*	-1.82**
	(.07)	(.13)	(.11)	(.19)	(.06)	(.14)
Total High School Work Experience, in Months	-.09**	-.16**	.05	-.11	-.05*	-.10+
	(.03)	(.05)	(.06)	(.10)	(.02)	(.06)
Marital Status Married[b] Single	1.52*	-4.24**	1.96*	-4.15**	.20	-6.00**
	(.66)	(1.20)	(.85)	(1.44)	(.47)	(1.24)

Appendix Table 17-V - Continued

	In-School Only		Summer Only		In-School and Summer Combined	
	Months Unemployed	Months Voluntarily Withdrawn From Labor Force	Months Unemployed	Months Voluntarily Withdrawn From Labor Force	Months Unemployed	Months Voluntarily Withdrawn From Labor Force
Widowed, Separated, Divorced	15.07*	-8.50**	-8.01**	-19.92**	13.94**	-5.29
	(1.55)	(2.85)	(2.81)	(4.78)	(1.50)	(3.92)
Father's Education	-.03	.16	.18+	.11	-.05	.27
	(.08)	(.15)	(.11)	(.18)	(.06)	(.17)
Labor Market Area						
Metropolitan Economic Area: 5000,000 or more[b]						
Metropolitan Economic Area: More than 50,000-Less than 500,000	2.15*	1.50	4.14**	2.94	.60	.87
	(.87)	(1.60)	(1.58)	(2.70)	(.72)	(1.89)
Rural Functional Economic Area	.51	.37	2.61	-.71	-.75	-.96
	(1.29)	(2.37)	(1.88)	(3.20)	(.93)	(2.44)
Rural: Less than 2 persons/sq. mile	.11	3.92+	3.15	4.92	.80	1.70
	(1.30)	(2.38)	(2.31)	(3.94)	(1.26)	(3.29)
Male	-.72	-2.76*	.01	-2.58*	.00	-3.96**
	(.64)	(1.18)	(.76)	(1.30)	(.47)	(1.23)
Ethnic Origin						
White[b]						
Negro	.88	-.10	1.99	2.14	.64	1.17
	(.90)	(1.66)	(1.55)	(2.63)	(.74)	(1.94)

Appendix Table 17-V - Continued

	In-School Only		Summer Only		In-School and Summer Combined	
	Months Unemployed	Months Voluntarily Withdrawn From Labor Force	Months Unemployed	Months Voluntarily Withdrawn From Labor Force	Months Unemployed	Months Voluntarily Withdrawn From Labor Force
American Indian	1.05 (1.35)	3.82 (2.47)	6.16 (1.61)	-1.36 (2.73)	.04 (1.47)	5.68 (3.87)
Mexican American	1.23 (1.39)	-3.05 (2.55)	1.68 (1.22)	1.09 (2.08)	1.55+ (.83)	1.80 (2.19)
Puerto Rican	----d	----d	13.02e* (6.22)	-25.14e* (10.58)	-.37 (2.74)	-8.71 (7.17)
Discriminant Function	.01 (.01)	-.00 (.02)	.02 (.02)	.07** (.03)	-.00 (.01)	.06** (.02)
Number of Observations	437	437	308	308	354	354
Standard Error of Estimate	4.88	8.95	6.70	11.99	3.69	9.68
$\bar{R}^2$	.3724	.7223	.3109	.7651	.3633	.7225
F-Ratio	13.81	60.55	7.27	52.46	10.65	48.60

Notes: (a) In School Only = those participants who enrolled only as an in-school NYC participant; Summer Only = those participants who enrolled only as a summer NYC participants; In-School and Summer Combined = those participants who enrolled both as an in-school and a summer NYC participant.

(b) This regressor enters the intercept term. See Table 25 for the interpretation of dummy variables and scaled variables.

(c) This is the partial regression coefficient. The number in parentheses is the standard error of the partial regression coefficient.

Appendix Table 17-V - Continued

Notes: (Continued)

(d) No observations for this regressor.

(e) There are only 1.5 weighted observations for this regressor.

$\bar{R}^2$ is the coefficient of determination adjusted for degrees of freedom.

+ = significant at the .10 level.

* = significant at the .05 level.

** = significant at the .01 level.

APPENDIX TABLE 18-V

DATA FOR SOCIAL COST-BENEFIT ESTIMATION,
MONTHLY, IN DOLLARS

Sample Group	Number of Cost Periods	Number of Benefit Periods		Average Cost		Average Benefit	Average Cost		Average Benefit
		m^a	$m+s^b$	Total	Federal		Total	Federal	
Total Sample	12	19	39	34	26	63*	40	35	44*
Male	12	14	30	34	26	116+	40	35	84+
Female	12	22	45	34	26	31	40	35	21
White	12	20	37	34	26	75*	40	35	51*
Negro	12	12	24	34	26	167**	40	35	132***
White Male	12	15	30	34	26	102	40	35	72
Negro Male	12	10	20	34	26	146+	40	35	118+
White Female	12	25	43	34	26	24	40	35	15
Negro Female	12	13	25	34	26	120+	40	35	94+

Notes: a) m = the average number of months the NYC participant was eligible to be in the civilian labor force.

b) m+s = m plus one standard deviation of m.

+ = significant at the .10 level.

Notes: (continued)

* = significant at the .05 level.

** = significant at the .01 level.

Average benefit measures are derived from the regression models according to a technique developed by J. Lansing and W. Ladd of the Survey Research Center, University of Michigan, Ann Arbor, Michigan, in a paper entitled "An Example of the Conversion of Regression Coefficients into Deviation About the Grand Mean." Mimeo. Dated October, 1966.

+ = significant at the .10 level.

* = significant at the .05 level.

** - significant at the .01 level.

APPENDIX TABLE 19-V

DATA FOR PRIVATE COST-BENEFIT ESTIMATION, MONTHLY, IN DOLLARS

Sample Group	Number of Cost Periods[a]	Average Cost[b]	Average Benefit	Marginal Benefit
Total Sample	7	22[c]	53*	37*
Male	7	22	87+	663+
Female	7	22	28	19
White	7	22	72*	49*
Negro	7	22	126**	99**
White Male	7	22	42*	30*
Negro Male	7	22	136+	109+
White Female	7	22	26	17
Negro Female	7	22	75	538

Notes: a) The number of benefit periods (m and m+s) is the same as shown in Table 46.

b) The assumption is made that average and marginal cost are the same. Thus, these cost figures are used to estimate both average and marginal rates of return and net present values.

c) This is a net cost figure which is the sum of $130 monthly cost and $108 monthly benefit.

+ = significant at the .10 level.

* = significant at the .05 level.

** = significant at the .01 level.

APPENDIX TABLE 20-V

DATA FOR COST-BENEFIT ESTIMATION OF NYC PROGRAM ALTERNATIVES, SOCIAL CONCEPTS

Program Alternative	Number of Cost Periods in Months[a]	Number of Cost Periods in Months[b]	Average[c] Cost/ Month	Average[c] Benefit/ Month	Marginal Cost/ Month	Marginal Benefit/ Month
In-School Participant Only	7	17	$53	$69	$60	$53*
Summer Participant Only	7	21	$63	$33	$51	$26
Both an In-School and Summer Participant	7	18	$43	$53+	$34+	$44+

Notes:

(a) The cost periods are weighted averages for the summer only program component and the combined in-school and summer program component. No direct observation of the in-school program cost period was available since there were only two pare in-school programs in the sample of 601 projects. Thus, for purposes of comparison, the same average project duration of seven months was assigned to this program component.

(b) The number of benefit periods are based on the average length of time the combined NYC sub-group plus its control group counterpart were eligible to be members of the civilian labor force.

(c) See Appendix Table 18-V for a statement of the source of the methodology for computing average benefits.

\+ = significant at the .10 level.
* = significant at the .05 level.

APPENDIX TABLE 21-V

DATA FOR SOCIAL COST-BENEFIT ESTIMATION,
MONTHLY, IN DOLLARS

Sample Group	Number of Cost Periods	Number of Benefit Periods		Average[c]			Marginal		
				Cost		Benefit	Cost		Benefit
		m[a]	m+s[b]	Total	Federal		Total	Federal	
Total Sample	12	19	39	34	26	63*	40	35	44*
Male	12	14	30	34	26	116+	40	35	84+
Female	12	22	45	34	26	31	40	35	21
White	12	20	37	34	26	75*	40	35	51*
Negro	12	12	24	34	26	167**	40	35	132**
White Male	12	15	30	34	26	102	40	35	72
Negro Male	12	10	20	34	26	146+	40	35	118+
White Female	12	25	43	34	26	24	40	35	15
Negro Female	12	13	25	34	26	120+	40	35	94+

Notes: (a) m = the average number of months the NYC participant was eligible to be in the civilian labor force.

(b) m+s = m plus one standard deviation of m.

(c) Average benefit measures are derived from the regression models according to a technique developed by J. Lansing and W. Ladd of the Survey Research Center, University of Michigan, Ann Arbor, Michigan, in a mimeographed paper entitled "An Example of the Conversion of Regression Coefficients into Deviation about the Grand Mean." Dated October, 1962.

APPENDIX TABLE 21-V--CONTINUED

Notes: (continued)

+ = significant at the .10 level.

* = significant at the .05 level.

** = significant at the .01 level.

APPENDIX TABLE 22-V

DATA FOR PRIVATE COST-BENEFIT ESTIMATION,
MONTHLY, IN DOLLARS

Sample Group	Number of Cost Periods[a]	Average Cost[b]	Average Benefit[d]	Marginal Benefit
Total Sample	7	22[c]	53*	37*
Male	7	22	87+	63+
Female	7	22	28	19
White	7	22	72*	49*
Negro	7	22	126*	99**
White Male	7	22	42*	30*
Negro Male	7	22	136+	109+
White Female	7	22	26	17
Negro Female	7	22	75	58

Notes: (a) The number of benefit periods (m and m+s) is the same as shown in Table 21-V.

(b) The assumption is made that average and marginal costs are the same. Thus, these cost figures are used to estimate both average and marginal rates of return and net present value.

(c) This is a net cost figure which is the sum of $130 monthly cost and $108 monthly benefit.

\+ = significant at the .10 level.

* = significant at the .05 level.

** = significant at the .01 level.

(d) Average benefit measures are derived from the regression models according to a technique developed by J. Lansing and W. Ladd of the Survey Research Center, University of Michigan, Ann Arbor, Michigan in a mimeographed paper entitled, "An Example of the Conversion of Regression Coefficients into Deviation about the Grand Mean," dated October, 1962.

APPENDIX TABLE 23-V

DROPOUT EXPERIENCE OF NYC AND CONTROL SAMPLES, BY SEX AND REGION

	WEST				NORTH				SOUTH			
	NYC		Control		NYC		Control		NYC		Control	
	female	male	female	male	female	male	female	male	female	male	female	male
Total number of months of dropout experience	.15 (.73) 110	.79 (3.58) 172	1.35 (5.78) 62	.80 (3.80) 86	.79 (3.29) 100	.89 (4.68) 80	.43 (1.79) 89	1.17 (3.63) 64	.61 (2.77) 119	.38 (1.59) 118	1.62 (9.22) 109	2.07 (9.90) 69
Total number of months respondent was employed during dropout period	.02 (.19) 110	.11 (.67) 108	.00 (.00) 62	.10 (.61) 86	.21 (1.42) 102	.10 (.65) 80	.10 (.85) 89	.51 (2.61) 65	.15 (1.23) 119	.08 (.70) 118	.02 (.19) 109	.39 (1.80) 69
Total number of months respondent was unemployed during dropout period	.01 (.10) 110	.13 (1.35) 108	.26 (1.32) 62	.00 (.00) 86	.01 (.10) 101	.01 (.11) 80	.15 (1.18) 89	.09 (.75) 64	.00 (.00) 119	.01 (.09) 118	.00 (.00) 109	.00 (.00) 69
Total number of months respondent was voluntarily out of the civilian labor force during dropout period.	.13 (.68) 110	.55 (2.87) 108	1.21 (5.69) 62	.31 (1.84) 86	.50 (2.25) 100	.77 (4.63) 80	.20 (1.09) 89	.56 (2.39) 64	.45 (2.35) 119	.29 (1.27) 118	.87 (5.26) 109	.52 (1.98) 69
Average hourly wage rate during dropout period.	1.14 (11.92) 110	3.94 (23.75) 108	1.45 (11.43) 62	9.05 (50.62) 86	3.99 (23.66) 102	3.40 (21.44) 80	3.43 (22.76) 89	9.00 (36.34) 65	2.69 (20.65) 119	2.12 (16.20) 118	1.74 (18.51) 109	8.70 (35.51) 69
Average hours worked/ week during dropout period.	.16 (1.72) 110	1.06 (6.29) 108	.00 (.00) 62	1.23 (6.62) 86	.78 (4.86) 102	.85 (5.38) 80	.76 (5.08) 89	2.60 (10.25) 65	.38 (3.69) 119	.63 (4.81) 118	.37 (3.83) 109	2.16 (8.54) 69
Socio-economic status of occupation held during dropout period	44.00 (.00) 1	18.33 (16.17) 3	.00 (.00) 0	13.33 (8.08) 3	26.25 (21.64) 4	53.00 (19.80) 2	35.00 (5.66) 2	33.50 (36.34) 4	44.00 (.00) 2	14.50 (4.95) 2	44.00 (.00) 1	19.25 (11.93) 4

APPENDIX TABLE 23-V -- Continued

	WEST				NORTH				SOUTH			
	NYC		Control		NYC		Control		NYC		Control	
	female	male	female	male	female	male	female	male	female	male	female	male
Industry attachment of job held during dropout period	52.00	41.67	.00	31.00	39.00	41.00	36.50	51.25	52.00	53.00	41.00	46.60
	(.00)	(17.90)	(.00)	(20.00)	(26.01)	(.00)	(20.51)	(24.09)	(.00)	(1.41)	(.00)	(33.96)
	1	3	0	3	4	1	2	4	2	2	1	5

Notes: (a) These statistics are, in descending order, the variable mean, the standard deviation of the variable mean in parentheses), and the number of observations in the cell.

APPENDIX TABLE 24-V

COMPARISON OF LABOR MARKET PERFORMANCE OF NEIGHBORHOOD YOUTH CORPS AND CONTROL GROUPS, BY SEX (WEIGHTED)

Variable	Total Sample		Male Sample		Female Sample	
	NYC	Control	NYC	Control	NYC	Control
Total Months Eligible to be in the Civilian Labor Force	18.57[a] (20.14)	18.55 (22.22)	14.04 (15.53)	15.11 (14.36)	22.32 (22.65)	21.58 (27.03)
Total Months Unemployed	1.51 (7.81)	1.29 (5.16)	.77 (2.66)	1.00 (3.73)	2.12 (10.26)	1.54 (6.16)
Total Months Voluntarily Not-in-the Labor Force	8.02 (15.09)	8.22 (17.41)	5.04 (10.60)	5.47 (10.22)	10.50 (17.63)	10.64 (21.63)
Total Post-High School Before Tax Earnings, in Dollars	2,885 (4,019)	3.094 (4,283)	3,115 (4,825)	3,696 (4,954)	2,694 (3,200)	2,563 (3,521)
Average Hourly Wage Rate, in Dollars	1.28 (1.12)	1.34 (1.25)	1.36 (1.23)	1.52 (1.39)	1.21 (1.03)	1.18 (1.10)
Total Post-High School After Tax Earnings, in Dollars	2,491 (3,410)	2,675 (3,606)	2,708 (4,096)	3,134 (4,075)	2,310 (2,709)	2,270 (3,093)
Total Federal Income and Social Security Taxes	394 (798)	419 (753)	407 (785)	561 (956)	383 (811)	293 (481)
Number of Observations	388	288	176	135	212	153

Notes: (a) These statistics are the variable mean and its standard deviation (in parentheses).

APPENDIX TABLE 25-V

COMPARISON OF LABOR MARKET PERFORMANCE OF NEIGHBORHOOD YOUTH CORPS AND CONTROL GROUPS, BY ETHNIC ORIGIN (WEIGHTED)

Variable	White		Negro		American Indian		Mexican American	
	NYC	Control	NYC	Control	NYC	Control	NYC	Control
Total Months Eligible to be in the Civilian Labor Force	20.01[a] (17.46)	20.79 (22.68)	12.19 (11.82)	14.62 (15.96)	37.58 (48.33)	26.60 (40.88)	15.38 (17.14)	10.47 (20.18)
Total Months Unemployed	1.28 (5.26)	1.37 (5.95)	.66 (1.84)	1.35 (3.66)	8.59 (26.51)	0.0 (0.0)	.48 (1.62)	1.29 (4.25)
Total Months Voluntarily Out-of-the Labor Force	8.23 (13.35)	9.15 (19.22)	5.12 (7.33)	6.62 (9.85)	21.57 (38.13)	16.88 (33.75)	7.12 (13.07)	2.38 (5.03)
Total Post-High School Before Tax Earnings, in Dollars	3,461 (4,750)	3,702 (4,771)	2,116 (2,589)	2,302 (2,860)	1,683 (2,089)	1.011 (1,309)	1,945 (1,980)	2.063 (4,257)
Average Hourly Wage Rate, in Dollars	1.45 (1.12)	1.54 (1.27)	.85 (.71)	1.14 (1.11)	1.53 (1.58)	.73 (1.18)	1.17 (1.45)	.84 (1.32)
Total Post-High School After Tax Earnings, in Dollars	2,975 (4,018)	3,190 (3,998)	1,819 (2,221)	1,997 (2,430)	1,541 (1,867)	934 (1,252)	1,744 (1,760)	1,807 (3,658)
Total Federal Income and Social Security Taxes	487 (988)	511 (872)	297 (416)	305 (454)	142 (253)	77 (72)	201 (261)	256 (605)
Number of Observations	221	177	96	70	23	12	38	27

Notes: (a) These statistics are the variable mean and its standard deviation (in parentheses).

APPENDIX TABLE 26-V

COMPARISON OF LABOR MARKET PERFORMANCE OF NEIGHBORHOOD YOUTH CORPS AND CONTROL GROUPS, BY SEX AND ETHNIC ORIGIN (WEIGHTED)

Variable	White Males		Negro Males		White Females		Negro Females	
	NYC	Control	NYC	Control	NYC	Control	NYC	Control
Total Months Eligible to be in the Civilian Labor Force	14.98[a] (15.44)	17.93 (13.82)	9.75 (10.21)	13.65 (15.72)	25.27 (17.96)	15.13 (16.24)	13.47 (12.47)	23.68 (28.82)
Total Months Unemployed	.68 (2.34)	1.06 (3.74)	.36 (1.04)	1.54 (5.14)	1.91 (7.11)	1.26 (2.66)	.81 (2.13)	1.68 (7.57)
Total Months Voluntarily Out-of-the Labor Force	4.71 (9.85)	6.25 (10.77)	3.85 (6.92)	6.48 (11.63)	11.91 (15.43)	6.70 (8.93)	5.79 (7.55)	12.09 (24.75)
Total Post-High School Before Tax Earnings, in Dollars	3,712 (5,643)	4,547 (5,525)	2,128 (2,287)	2,734 (2,873)	3,198 (3,595)	2,077 (2,860)	2,109 (2,751)	2,846 (3,701)
Average Hourly Wage Rate, in Dollars	1.54 (1.25)	1.82 (1.46)	.86 (.75)	1.20 (.92)	1.36 (.95)	1.11 (1.21)	.85 (.69)	1.25 (.96)
Total Post-High School After Tax Earnings, in Dollars	3,215 (4,780)	3,841 (4,519)	1,846 (1,963)	2,336 (2,379)	2,723 (3,025)	1,821 (2,463)	1,804 (2,360)	2,532 (3,288)
Total Federal Income and Social Security Taxes	498 (929)	706 (1,101)	282 (346)	397 (512)	475 (1,050)	257 (419)	305 (450)	314 (485)
Number of Observations	113	89	33	24	108	46	63	88

Notes: (a) These statistics are the variable mean and the standard deviation (in parentheses).

APPENDIX TABLE 27-V

ATTITUDES AND VALUES OF THE NEIGHBORHOOD YOUTH CORPS AND CONTROL SAMPLES, IN THE WEST, BY ETHNIC ORIGIN
(PERCENTAGES IN PARENTHESES)

	NYC				Control			
	White[a]	Negro	Mexican American	American Indian	White	Negro	Mexican American	American Indian
How important is it to have a college education in order to be looked up to by most people around here?								
Absolutely Necessary	24 (33.33)	37 (56.92)	22 (56.41)	22 (61.11)	13 (27.08)	23 (57.50)	11 (31.43)	8 (53.33)
It helps but isn't necessary	37 (51.39)	22 (33.85)	13 (33.33)	12 (33.33)	29 (60.42)	13 (32.50)	18 (51.43)	12 (50.00)
Doesn't matter one way or another	10 (13.89)	6 (9.23)	4 (10.26)	2 (5.56)	6 (12.50)	4 (10.00)	6 (17.14)	3 (12.50)
You're better off without it	1 (1.39)	0 (.00)	0 (.00)	0 (.00)	0 (.00)	0 (.00)	0 (.00)	1 (4.17)
How important is it to have a college education in order to get a good paying job around here?								
Absolutely Necessary	34 (47.22)	44 (66.67)	27 (67.50)	23 (65.71)	22 (45.83)	30 (75.00)	14 (40.00)	14 (58.33)
It helps but isn't necessary	32 (44.44)	20 (30.30)	11 (27.50)	11 (31.43)	24 (50.00)	8 (20.00)	17 (48.57)	8 (33.33)
Doesn't matter one way or another	6 (8.33)	2 (3.03)	2 (5.00)	1 (2.86)	2 (4.17)	2 (5.00)	4 (11.43)	2 (8.33)
You're better off without it	0 (.00)	0 (.00)	0 (.00)	0 (.00)	0 (.00)	0 (.00)	0 (.00)	0 (.00)

APPENDIX TABLE 27-V -- Continued

	NYC				Control			
	White	Negro	Mexican American	American Indian	White	Negro	Mexican American	American Indian
Work is the only way to survive.								
Strongly Agree	23 (31.94)	25 (37.31)	14 (35.00)	14 (38.89)	14 (29.17)	13 (32.50)	7 (20.00)	6 (26.09)
Agree	36 (50.00)	28 (41.79)	15 (37.50)	17 (47.22)	23 (47.92)	20 (50.00)	11 (31.43)	17 (73.91)
Not Sure	6 (8.33)	6 (8.96)	5 (12.50)	3 (8.33)	3 (6.25)	3 (7.50)	5 (14.29)	0 (.00)
Disagree	6 (8.33)	7 (10.45)	5 (12.50)	2 (5.56)	7 (14.58)	3 (7.50)	12 (34.29)	0 (.00)
Strongly Disagree	1 (1.39)	1 (1.49)	1 (2.50)	0 (.00)	1 (2.08)	1 (2.50)	0 (.00)	0 (.00)
So long as I earn enough to live decently, I don't care too much what kind of work I do.								
Strongly Agree	5 (6.94)	1 (1.49)	4 (10.00)	2 (5.56)	1 (2.08)	3 (7.50)	0 (.00)	0 (.00)
Agree	3 (4.17)	7 (10.45)	6 (15.00)	4 (11.11)	1 (2.08)	4 (10.00)	7 (20.00)	7 (30.43)
Not Sure	2 (2.78)	9 (13.43)	2 (5.00)	5 (13.89)	4 (8.33)	6 (15.00)	3 (8.57)	2 (8.70)
Disagree	41 (56.94)	28 (41.79)	21 (52.50)	19 (52.78)	23 (47.92)	20 (50.00)	19 (54.29)	10 (43.48)
Strongly Disagree	21 (29.17)	22 (32.84)	7 (17.50)	6 (16.67)	19 (39.58)	7 (17.50)	6 (17.14)	4 (17.39)

APPENDIX TABLE 27-V -- Continued

	NYC				Control			
	White	Negro	Mexican American	American Indian	White	Negro	Mexican American	American Indian
Work is so interesting that people do it even if they don't need the money.								
Strongly Agree	8 (11.11)	4 (5.97)	4 (10.00)	0 (.00)	4 (8.33)	1 (2.50)	1 (2.86)	2 (8.70)
Agree	22 (30.56)	16 (23.88)	11 (27.50)	12 (33.33)	19 (39.58)	9 (22.50)	15 (42.86)	9 (39.13)
Not Sure	12 (16.67)	21 (31.34)	10 (25.00)	5 (13.89)	2 (4.17)	10 (25.00)	3 (8.57)	2 (8.70)
Disagree	23 (31.94)	17 (25.37)	11 (27.50)	18 (50.00)	19 (39.58)	17 (42.50)	13 (37.14)	4 (17.39)
Strongly Disagree	7 (9.72)	9 (13.43)	4 (10.00)	1 (2.78)	4 (8.33)	3 (7.50)	3 (8.57)	6 (26.09)
On most jobs you don't get ahead by working hard, you get ahead by knowing the right people.								
Strongly Agree	3 (4.17)	5 (7.46)	4 (10.00)	4 (11.11)	3 (6.25)	3 (7.50)	1 (2.86)	2 (8.70)
Agree	13 (18.06)	13 (19.40)	7 (17.50)	6 (16.67)	5 (10.42)	10 (25.00)	8 (22.86)	8 (34.78)
Not Sure	14 (19.44)	11 (16.42)	8 (20.00)	9 (25.00)	7 (14.58)	8 (20.00)	4 (11.43)	3 (13.04)
Disagree	33 (45.83)	30 (44.78)	19 (47.50)	14 (38.89)	29 (60.42)	16 (40.00)	20 (57.14)	7 (30.43)
Strongly Disagree	9 (12.50)	8 (11.94)	2 (5.00)	3 (8.33)	4 (8.33)	3 (7.50)	2 (5.71)	3 (13.04)

APPENDIX TABLE 27-V -- Continued

	NYC				Control			
	White	Negro	Mexican American	American Indian	White	Negro	Mexican American	American Indian
On the whole, I am satisfied with myself.								
Strongly Agree	9 (12.50)	15 (22.39)	6 (15.00)	5 (13.89)	4 (8.33)	7 (17.50)	0 (.00)	2 (8.70)
Agree	40 (55.56)	22 (32.84)	26 (65.00)	17 (47.22)	28 (58.33)	17 (42.50)	27 (77.14)	12 (52.17)
Not Sure	11 (15.28)	12 (17.91)	4 (10.00)	2 (5.56)	8 (16.67)	7 (17.50)	3 (8.57)	4 (17.39)
Disagree	12 (16.67)	17 (25.37)	4 (10.00)	12 (33.33)	6 (12.50)	7 (17.50)	5 (14.29)	5 (21.74)
Strongly Disagree	0 (.00)	1 (1.49)	0 (.00)	0 (.00)	2 (4.17)	2 (5.00)	0 (.00)	0 (.00)
I feel that I do not have much to be proud of.								
Strongly Agree	0 (.00)	0 (.00)	2 (5.00)	2 (5.56)	1 (2.08)	0 (.00)	0 (.00)	0 (.00)
Agree	3 (4.17)	8 (11.94)	6 (15.00)	3 (8.33)	1 (2.08)	5 (12.50)	4 (11.43)	6 (26.09)
Not Sure	7 (9.72)	9 (13.43)	3 (7.50)	6 (16.67)	4 (8.33)	6 (15.00)	2 (5.71)	6 (26.09)
Disagree	41 (56.94)	29 (43.28)	18 (45.00)	22 (61.11)	26 (54.17)	20 (50.00)	21 (60.00)	8 (34.78)
Strongly Disagree	21 (29.17)	21 (31.34)	11 (27.50)	3 (8.33)	16 (33.33)	9 (22.50)	8 (22.86)	3 (13.04)
I am able to do things as well as most people.								
Strongly Agree	18 (25.00)	21 (31.34)	10 (25.00)	6 (16.67)	14 (29.17)	7 (17.50)	5 (14.29)	3 (13.04)

APPENDIX TABLE 27-V -- Continued

	NYC				Control			
	White	Negro	Mexican American	American Indian	White	Negro	Mexican American	American Indian
Agree	50 (69.44)	38 (56.72)	24 (60.00)	18 (50.00)	30 (62.50)	31 (77.50)	24 (68.57)	13 (56.52)
Not Sure	3 (4.17)	4 (5.97)	4 (10.00)	7 (19.44)	2 (4.17)	2 (5.00)	4 (11.43)	4 (17.39)
Disagree	1 (1.39)	4 (5.97)	2 (5.00)	5 (13.89)	2 (4.17)	0 (.00)	2 (5.71)	3 (13.04)
Strongly Disagree	0 (.00)	0 (.00)	0 (.00)	0 (.00)	0 (.00)	0 (.00)	0 (.00)	0 (.00)
I feel that I am a person of worth, at least on an equal plane with others.								
Strongly Agree	22 (30.56)	24 (35.82)	12 (30.00)	7 (19.44)	15 (31.25)	10 (25.00)	6 (17.14)	4 (17.39)
Agree	49 (68.06)	39 (58.21)	26 (65.00)	24 (66.67)	30 (62.50)	27 (67.50)	26 (74.29)	15 (65.22)
Not Sure	1 (1.39)	3 (4.48)	1 (2.50)	4 (11.11)	2 (4.17)	3 (7.50)	3 (8.57)	3 (13.04)
Disagree	0 (.00)	1 (1.49)	0 (.00)	1 (2.78)	1 (2.08)	0 (.00)	0 (.00)	1 (4.35)
Strongly Disagree	0 (.00)	0 (.00)	1 (2.50)	0 (.00)	0 (.00)	0 (.00)	0 (.00)	0 (.00)
At times I think I'm no good at all.								
Strongly Agree	5 (6.94)	2 (2.99)	1 (2.50)	1 (2.78)	3 (6.25)	0 (.00)	0 (.00)	1 (4.35)
Agree	21 (29.17)	14 (20.90)	8 (20.00)	10 (27.78)	12 (25.00)	9 (22.50)	6 (17.14)	7 (30.43)

APPENDIX TABLE 27-V -- Continued

	NYC				Control			
	White	Negro	Mexican American	American Indian	White	Negro	Mexican American	American Indian
Not Sure	7 (9.72)	5 (7.46)	4 (10.00)	9 (25.00)	5 (10.42)	6 (15.00)	1 (2.86)	6 (26.09)
Disagree	32 (44.44)	30 (44.78)	18 (45.00)	15 (41.67)	18 (37.50)	22 (55.00)	26 (74.29)	8 (34.78)
Strongly Disagree	7 (9.72)	16 (23.88)	9 (22.50)	1 (2.78)	10 (20.83)	3 (7.50)	2 (5.71)	1 (4.35)
People think differently about what is <u>important in helping a person get ahead</u>. Which one do you think is most important in helping a person get ahead?								
Brains	9 (12.68)	11 (16.92)	2 (5.00)	0 (.00)	2 (4.17)	1 (2.50)	5 (14.29)	2 (9.52)
Personality	7 (9.86)	3 (4.62)	3 (7.50)	3 (8.82)	6 (12.50)	5 (12.50)	5 (14.29)	2 (9.52)
Knowing the right people	4 (5.63)	4 (6.15)	5 (12.50)	0 (.00)	3 (6.25)	4 (10.00)	2 (5.71)	1 (4.76)
Good Luck	0 (.00)	0 (.00)	0 (.00)	0 (.00)	0 (.00)	1 (2.50)	0 (.00)	0 (.00)
Hard Work	15 (21.13)	10 (15.38)	4 (10.00)	9 (26.47)	15 (31.25)	2 (5.00)	7 (20.00)	8 (38.10)
A Good Education	36 (50.70)	37 (56.92)	26 (65.00)	22 (64.71)	22 (45.83)	26 (65.00)	16 (45.71)	8 (38.10)
I Don't Know	0 (.00)	0 (.00)	0 (.00)	0 (.00)	0 (.00)	1 (2.50)	0 (.00)	0 (.00)

Notes: (a) The statistics are the number of observations in the cell and the percent in each cell based on column totals for each attitudinal question.

APPENDIX TABLE 28-V

ATTITUDES AND VALUES OF THE NEIGHBORHOOD YOUTH CORPS AND CONTROL SAMPLES, IN THE NORTH, BY ETHNIC ORIGIN
(PERCENTAGES IN PARENTHESES)

	NYC				Control			
	White[a]	Negro	Mexican American	American Indian	White	Negro	Mexican American	American Indian
How important is it to have a college education in order to be looked up to by most people around here?								
Absolutely Necessary	21 (19.63)	20 (33.90)	1 (20.00)	6 (75.00)	23 (24.73)	25 (49.02)	1 (33.33)	2 (40.00)
It helps but isn't necessary	67 (62.62)	32 (54.24)	4 (80.00)	2 (25.00)	53 (56.99)	22 (43.13)	2 (66.67)	3 (60.00)
Doesn't matter one way or another	18 (16.82)	6 (10.17)	0 (.00)	0 (.00)	16 (17.20)	4 (7.84)	0 (.00)	0 (.00)
You're better off without it	1 (.93)	1 (1.69)	0 (.00)	0 (.00)	1 (1.08)	0 (.00)	0 (.00)	0 (.00)
How important is it to have a college education in order to get a good paying job around here?								
Absolutely Necessary	25 (23.58)	31 (53.45)	3 (60.00)	6 (75.00)	34 (36.56)	27 (52.94)	2 (66.67)	3 (60.00)
It helps but isn't necessary	64 (60.38)	25 (43.10)	2 (40.00)	2 (25.00)	52 (55.91)	22 (43.14)	1 (33.33)	2 (40.00)
Doesn't matter one way or another	16 (15.09)	2 (3.45)	0 (.00)	0 (.00)	7 (7.53)	2 (3.92)	0 (.00)	0 (.00)
You're better off without it	1 (.94)	0 (.00)	0 (.00)	0 (.00)	0 (.00)	0 (.00)	0 (.00)	0 (.00)

	NYC				Control			
	White	Negro	Mexican American	American Indian	White	Negro	Mexican American	American Indian
Work is the only way to survive.								
Strongly Agree	37 (34.58)	21 (35.59)	1 (20.00)	4 (50.00)	15 (16.13)	18 (35.29)	1 (33.33)	2 (40.00)
Agree	40 (37.38)	23 (38.98)	4 (80.00)	3 (37.50)	54 (58.06)	25 (49.02)	0 (.00)	2 (40.00)
Not Sure	10 (9.35)	7 (11.86)	0 (.00)	0 (.00)	7 (7.53)	0 (.00)	0 (.00)	1 (20.00)
Disagree	18 (16.82)	8 (13.56)	0 (.00)	1 (12.50)	16 (17.20)	7 (13.73)	2 (66.67)	0 (.00)
Strongly Disagree	2 (1.87)	0 (.00)	0 (.00)	0 (.00)	1 (1.08)	1 (1.96)	0 (.00)	0 (.00)
As long as I earn enough to live decently, I don't care too much what kind of work I do.								
Strongly Agree	5 (4.67)	3 (5.08)	0 (.00)	1 (12.50)	1 (1.08)	0 (.00)	0 (.00)	0 (.00)
Agree	15 (14.02)	4 (6.78)	0 (.00)	2 (25.00)	13 (13.98)	4 (7.84)	0 (.00)	1 (20.00)
Not Sure	6 (5.61)	9 (15.25)	0 (.00)	2 (25.00)	2 (2.15)	0 (.00)	0 (.00)	1 (20.00)
Disagree	55 (51.40)	28 (47.46)	4 (80.00)	2 (25.00)	54 (58.06)	26 (50.98)	2 (66.67)	3 (60.00)
Strongly Disagree	26 (24.30)	15 (25.42)	1 (20.00)	1 (12.50)	23 (24.73)	21 (41.18)	1 (33.33)	0 (.00)

APPENDIX TABLE 28-V -- Continued

	NYC				Control			
	White	Negro	Mexican American	American Indian	White	Negro	Mexican American	American Indian
Work is so interesting that people do it even if they don't need the money.								
Strongly Agree	9 (8.41)	4 (6.78)	0 (.00)	1 (12.50)	4 (4.30)	3 (5.88)	0 (.00)	0 (.00)
Agree	36 (33.64)	8 (13.56)	1 (20.00)	3 (37.50)	38 (40.86)	9 (17.65)	2 (66.67)	2 (40.00)
Not Sure	10 (9.35)	15 (25.42)	1 (20.00)	1 (12.50)	5 (5.38)	6 (11.76)	0 (.00)	0 (.00)
Disagree	40 (37.38)	25 (42.37)	3 (60.00)	3 (37.50)	36 (38.71)	21 (41.18)	1 (33.33)	3 (60.00)
Strongly Disagree	12 (11.21)	7 (11.86)	0 (.00)	0 (.00)	10 (10.75)	12 (23.53)	0 (.00)	0 (.00)
On most jobs you don't get ahead by working hard, you get ahead by knowing the right people.								
Strongly Agree	3 (2.80)	7 (11.86)	0 (.00)	1 (12.50)	4 (4.30)	7 (13.73)	0 (.00)	0 (.00)
Agree	15 (14.02)	9 (15.25)	0 (.00)	0 (.00)	17 (18.28)	8 (15.69)	2 (66.67)	1 (20.00)
Not Sure	17 (15.89)	14 (23.73)	0 (.00)	0 (.00)	10 (10.75)	1 (1.96)	1 (33.33)	1 (20.00)
Disagree	53 (49.53)	25 (42.37)	4 (80.00)	5 (62.50)	48 (51.61)	30 (58.82)	0 (.00)	2 (40.00)
Strongly Disagree	19 (17.76)	4 (6.78)	1 (20.00)	2 (25.00)	14 (15.05)	5 (9.80)	0 (.00)	1 (20.00)

APPENDIX TABLE 28-V -- Continued

	NYC				Control			
	White	Negro	Mexican American	American Indian	White	Negro	Mexican American	American Indian
On the whole, I am satisfied with myself.								
Strongly Agree	16 (14.81)	15 (25.42)	0 (.00)	1 (12.50)	9 (9.68)	9 (17.65)	1 (33.33)	1 (20.00)
Agree	66 (61.11)	20 (33.90)	3 (60.00)	5 (62.50)	60 (64.52)	23 (45.10)	0 (.00)	3 (60.00)
Not Sure	10 (9.26)	7 (11.86)	1 (20.00)	1 (12.50)	5 (5.38)	2 (3.92)	0 (.00)	0 (.00)
Disagree	13 (12.04)	17 (28.81)	1 (20.00)	1 (12.50)	16 (17.20)	16 (31.37)	2 (66.67)	1 (20.00)
Strongly Disagree	3 (2.78)	0 (.00)	0 (.00)	0 (.00)	3 (3.23)	1 (1.96)	0 (.00)	0 (.00)
I feel that I do not have much to be proud of.								
Strongly Agree	2 (1.87)	7 (11.86)	0 (.00)	0 (.00)	6 (6.45)	6 (11.76)	0 (.00)	1 (20.00)
Agree	4 (3.74)	2 (3.39)	1 (20.00)	0 (.00)	11 (11.83)	6 (11.76)	0 (.00)	1 (20.00)
Not Sure	9 (8.41)	8 (13.56)	1 (20.00)	2 (25.00)	4 (4.30)	1 (1.96)	0 (.00)	0 (.00)
Disagree	58 (54.21)	28 (47.46)	2 (40.00)	3 (37.50)	48 (51.61)	20 (39.22)	2 (66.67)	2 (40.00)
Strongly Disagree	34 (31.78)	14 (23.73)	1 (20.00)	3 (37.50)	24 (25.81)	18 (35.29)	1 (33.33)	1 (20.00)
I am able to do things as well as most people.								
Strongly Agree	30 (28.04)	20 (33.90)	0 (.00)	2 (25.00)	13 (13.98)	11 (21.57)	1 (33.33)	1 (20.00)

APPENDIX TABLE 28-V -- Continued

	NYC				Control			
	White	Negro	Mexican American	American Indian	White	Negro	Mexican American	American Indian
Agree	67 (62.62)	29 (49.15)	4 (80.00)	3 (37.50)	70 (75.27)	34 (66.67)	1 (33.33)	4 (80.00)
Not Sure	2 (1.87)	5 (8.47)	1 (20.00)	1 (12.50)	4 (4.30)	0 (.00)	1 (33.33)	0 (.00)
Disagree	8 (7.48)	5 (8.47)	0 (.00)	2 (25.00)	6 (6.45)	6 (11.76)	0 (.00)	0 (.00)
Strongly Disagree	0 (.00)	0 (.00)	0 (.00)	0 (.00)	0 (.00)	0 (.00)	0 (.00)	0 (.00)
I feel that I am a person of worth, at least on an equal plane with others.								
Strongly Agree	31 (28.97)	26 (44.07)	0 (.00)	4 (50.00)	23 (24.73)	11 (21.57)	1 (33.33)	2 (40.00)
Agree	72 (67.29)	28 (47.46)	5 (100.00)	4 (50.00)	65 (69.89)	39 (76.47)	2 (66.67)	2 (40.00)
Not Sure	3 (2.80)	2 (3.39)	0 (.00)	0 (.00)	2 (2.15)	0 (.00)	0 (.00)	1 (20.00)
Disagree	1 (.93)	2 (3.39)	0 (.00)	0 (.00)	3 (3.23)	1 (1.96)	0 (.00)	0 (.00)
Strongly Disagree	0 (.00)	1 (1.69)	0 (.00)	0 (.00)	0 (.00)	0 (.00)	0 (.00)	0 (.00)
At times I think I am no good at all.								
Strongly Agree	2 (1.87)	5 (8.47)	0 (.00)	0 (.00)	6 (6.45)	2 (3.92)	0 (.00)	0 (.00)
Agree	29 (27.10)	10 (16.95)	2 (40.00)	2 (25.00)	36 (38.71)	14 (27.45)	2 (66.67)	2 (40.00)
Not Sure	8 (7.48)	8 (13.56)	0 (.00)	2 (25.00)	7 (7.53)	0 (.00)	0 (.00)	0 (.00)

APPENDIX TABLE 28-V -- Continued

	NYC				Control			
	White	Negro	Mexican American	American Indian	White	Negro	Mexican American	American Indian
Disagree	49 (45.79)	22 (37.29)	1 (20.00)	2 (25.00)	30 (32.26)	18 (35.29)	1 (33.33)	2 (40.00)
Strongly Disagree	19 (17.76)	14 (23.73)	2 (40.00)	2 (25.00)	14 (15.05)	17 (33.33)	0 (.00)	1 (20.00)
People think differently about what is <u>important in helping a person get ahead</u>. Which one do you think is most important in helping a person get ahead?								
Brains	6 (5.56)	3 (5.56)	1 (20.00)	0 (.00)	5 (5.38)	7 (13.73)	0 (.00)	0 (.00)
Personality	16 (14.81)	8 (14.81)	0 (.00)	1 (12.50)	13 (13.98)	7 (13.73)	2 (66.67)	0 (.00)
Knowing the right people	6 (5.56)	5 (9.26)	0 (.00)	1 (12.50)	7 (7.53)	3 (5.88)	0 (.00)	0 (.00)
Good Luck	1 (.93)	0 (.00)	0 (.00)	0 (.00)	1 (1.08)	0 (.00)	0 (.00)	0 (.00)
Hard Work	37 (34.26)	6 (11.11)	2 (40.00)	2 (25.00)	30 (32.26)	8 (15.69)	1 (33.33)	0 (.00)
A Good Education	41 (37.96)	31 (57.41)	2 (40.00)	4 (50.00)	35 (37.63)	26 (50.98)	0 (.00)	5 (100.00)
I Don't Know	1 (.93)	1 (1.85)	0 (.00)	0 (.00)	2 (2.15)	0 (.00)	0 (.00)	0 (.00)

Notes: (a) The statistics are the number of observations in the cell and the percent in each cell based on column totals for each attitudinal question.

APPENDIX TABLE 29-V

ATTITUDES AND VALUES OF THE NEIGHBORHOOD YOUTH CORPS AND CONTROL SAMPLES, IN THE SOUTH, BY ETHNIC ORIGIN
(PERCENTAGES IN PARENTHESES)

	NYC				Control			
	White[a]	Negro	Mexican American	American Indian	White	Negro	Mexican American	American Indian
How important is it to have a college education in order to be looked up to by most people around here?								
Absolutely Necessary	25 (17.86)	30 (46.88)	9 (64.29)	10 (58.82)	50 (24.39)	10 (23.26)	1 (100.00)	7 (63.64)
It helps but isn't necessary	101 (72.14)	31 (48.44)	5 (35.71)	4 (23.53)	79 (64.23)	28 (65.12)	0 (.00)	3 (27.27)
Doesn't matter one way or another	13 (9.29)	3 (4.69)	0 (.00)	3 (17.65)	11 (8.94)	5 (11.63)	0 (.00)	1 (9.09)
You're better off	1 (.71)	0 (.00)	0 (.00)	0 (.00)	3 (2.44)	0 (.00)	0 (.00)	0 (.00)
How important is it to have a college education in order to get a good paying job around here?								
Absolutely Necessary	51 (36.43)	34 (53.13)	7 (53.85)	10 (58.82)	41 (33.33)	28 (65.12)	1 (100.00)	8 (72.73)
It helps but isn't necessary	81 (57.86)	27 (42.19)	6 (46.15)	2 (11.76)	73 (59.35)	12 (27.91)	0 (.00)	3 (27.27)
Doesn't matter one way or another	8 (5.71)	3 (4.69)	0 (.00)	4 (23.53)	9 (7.32)	3 (6.98)	0 (.00)	0 (.00)

APPENDIX TABLE 29-V -- Continued

	NYC				Control			
	White	Negro	Mexican American	American Indian	White	Negro	Mexican American	American Indian
You're better off without it	0 (.00)	0 (.00)	0 (.00)	1 (5.88)	0 (.00)	0 (.00)	0 (.00)	0 (.00)
Work is the only way to survive.								
Strongly Agree	31 (22.14)	17 (26.56)	6 (42.86)	0 (.00)	34 (27.64)	17 (39.53)	0 (.00)	3 (27.27)
Agree	74 (52.86)	31 (48.44)	4 (28.57)	14 (82.35)	59 (47.97)	18 (41.86)	0 (.00)	6 (54.55)
Not Sure	16 (11.43)	5 (7.81)	1 (7.14)	1 (5.88)	13 (10.57)	3 (6.98)	1 (100.00)	2 (18.18)
Disagree	15 (10.71)	6 (9.38)	3 (21.43)	2 (11.76)	16 (13.01)	4 (9.30)	0 (.00)	0 (.00)
Strongly Disagree	4 (2.86)	5 (7.81)	0 (.00)	0 (.00)	1 (.81)	1 (2.33)	0 (.00)	0 (.00)
So long as I earn enough to live decently, I don't care too much what kind of work I do.								
Strongly Agree	6 (4.29)	1 (1.56)	2 (14.29)	1 (5.88)	2 (1.63)	0 (.00)	0 (.00)	0 (.00)
Agree	20 (14.29)	6 (9.38)	3 (21.43)	3 (17.65)	24 (19.51)	8 (18.60)	0 (.00)	1 (9.09)
Not Sure	10 (7.14)	4 (6.25)	2 (14.29)	4 (23.53)	2 (1.63)	2 (4.65)	0 (.00)	1 (9.09)
Disagree	58 (41.43)	23 (35.94)	3 (21.43)	9 (52.94)	64 (52.03)	15 (34.88)	1 (100.00)	7 (63.64)
Strongly Disagree	46 (32.86)	30 (46.88)	4 (28.57)	0 (.00)	31 (25.20)	18 (41.86)	0 (.00)	2 (18.18)

	NYC				Control			
	White	Negro	Mexican American	American Indian	White	Negro	Mexican American	American Indian
Work is so interesting that people do it even if they don't need the money.								
Strongly Agree	5 (3.57)	8 (12.50)	2 (14.29)	1 (5.88)	7 (5.69)	4 (9.30)	0 (.00)	0 (.00)
Agree	40 (28.57)	15 (23.44)	2 (14.29)	4 (23.53)	44 (35.77)	10 (23.26)	1 (100.00)	1 (9.09)
Not Sure	27 (19.29)	11 (17.19)	3 (21.43)	7 (41.18)	14 (11.38)	3 (6.98)	0 (.00)	2 (18.18)
Disagree	50 (35.71)	21 (32.81)	7 (50.00)	5 (29.41)	46 (37.40)	18 (41.86)	0 (.00)	7 (63.64)
Strongly Disagree	18 (12.86)	9 (14.06)	0 (.00)	0 (.00)	12 (9.76)	8 (18.60)	0 (.00)	1 (9.09)
On most jobs you don't get ahead by work hard, you get ahead by knowing the right people.								
Strongly Agree	5 (3.60)	7 (10.94)	1 (7.14)	0 (.00)	5 (4.07)	2 (4.65)	0 (.00)	0 (.00)
Agree	25 (17.99)	12 (18.75)	3 (21.43)	5 (29.41)	25 (20.33)	12 (27.91)	0 (.00)	4 (36.36)
Not Sure	25 (17.99)	9 (14.06)	2 (14.29)	5 (29.41)	18 (14.63)	4 (9.30)	0 (.00)	2 (18.18)
Disagree	67 (48.20)	27 (42.19)	7 (50.00)	6 (35.29)	63 (51.22)	17 (39.53)	1 (100.00)	5 (48.31)
Strongly Disagree	17 (12.23)	9 (14.06)	1 (7.14)	1 (5.88)	12 (9.76)	8 (18.60)	0 (.00)	0 (.00)

APPENDIX TABLE 29-V -- Continued

	NYC				Control			
	White	Negro	Mexican American	American Indian	White	Negro	Mexican American	American Indian
On the whole, I am satisfied with myself.								
Strongly Agree	20 (14.29)	17 (26.56)	3 (21.43)	1 (5.88)	15 (12.20)	16 (37.21)	0 (.00)	0 (.00)
Agree	77 (55.00)	17 (26.56)	5 (35.71)	12 (70.59)	71 (57.72)	19 (44.19)	1 (100.00)	8 (72.73)
Not Sure	17 (12.14)	10 (15.63)	2 (14.29)	3 (17.65)	15 (12.20)	2 (4.65)	0 (.00)	1 (9.09)
Disagree	24 (17.14)	17 (26.56)	4 (28.57)	1 (5.88)	21 (17.01)	5 (11.63)	0 (.00)	2 (18.18)
Strongly Disagree	2 (1.43)	3 (4.69)	0 (.00)	0 (.00)	1 (.81)	1 (2.33)	0 (.00)	0 (.00)
I feel that I do not have much to be proud of.								
Strongly Agree	0 (.00)	1 (1.56)	0 (.00)	0 (.00)	2 (1.63)	1 (2.33)	0 (.00)	0 (.00)
Agree	7 (5.00)	5 (7.81)	0 (.00)	3 (17.65)	6 (4.88)	5 (11.63)	0 (.00)	2 (18.18)
Not Sure	9 (6.43)	3 (4.69)	1 (7.14)	2 (11.76)	9 (7.32)	1 (2.33)	0 (.00)	4 (36.36)
Disagree	81 (57.86)	34 (53.13)	11 (78.57)	10 (58.82)	74 (60.16)	21 (48.84)	1 (100.00)	4 (36.36)
Strongly Disagree	43 (30.71)	21 (32.81)	2 (14.29)	2 (11.76)	32 (26.02)	15 (34.88)	0 (.00)	1 (9.09)

APPENDIX TABLE 29-V -- Continued

	NYC				Control			
	White	Negro	Mexican American	American Indian	White	Negro	Mexican American	American Indian
I am able to do things as well as most people.								
Strongly Agree	21 (15.00)	13 (20.31)	7 (50.00)	5 (29.41)	21 (17.07)	15 (34.88)	0 (.00)	1 (9.09)
Agree	97 (69.29)	41 (64.06)	6 (42.86)	11 (64.71)	86 (69.92)	24 (55.81)	1 (100.00)	8 (72.73)
Not Sure	9 (6.43)	4 (6.25)	0 (.00)	1 (5.88)	11 (8.94)	3 (6.98)	0 (.00)	2 (18.18)
Disagree	12 (8.57)	6 (9.38)	1 (7.14)	0 (.00)	5 (4.07)	1 (2.33)	0 (.00)	0 (.00)
Strongly Disagree	1 (.71)	0 (.00)	0 (.00)	0 (.00)	0 (.00)	0 (.00)	0 (.00)	0 (.00)
I feel that I am a person of worth, at least on an equal plane with others.								
Strongly Agree	30 (21.43)	28 (43.75)	8 (57.14)	1 (5.88)	20 (16.26)	17 (39.53)	0 (.00)	2 (18.18)
Agree	102 (72.86)	30 (46.88)	6 (42.86)	11 (64.71)	97 (78.86)	22 (51.16)	1 (100.00)	5 (45.45)
Not Sure	3 (2.14)	2 (3.13)	0 (.00)	4 (23.53)	5 (4.07)	3 (6.98)	0 (.00)	4 (36.36)
Disagree	5 (3.57)	3 (4.69)	0 (.00)	1 (5.88)	1 (.81)	0 (.00)	0 (.00)	0 (.00)
Strongly Disagree	0 (.00)	1 (1.56)	0 (.00)	0 (.00)	0 (.00)	1 (2.33)	0 (.00)	0 (.00)

APPENDIX TABLE 29-V -- Continued

	NYC				Control			
	White	Negro	Mexican American	American Indian	White	Negro	Mexican American	American Indian
At times I think I am no good at all.								
Strongly Agree	6 (4.29)	3 (4.69)	2 (14.29)	1 (5.88)	3 (2.44)	0 (.00)	0 (.00)	0 (.00)
Agree	34 (24.29)	15 (23.44)	6 (42.86)	5 (29.41)	44 (35.77)	8 (18.60)	1 (100.00)	7 (63.64)
Not Sure	10 (7.14)	6 (9.38)	1 (7.14)	6 (35.29)	7 (5.69)	1 (2.33)	0 (.00)	0 (.00)
Disagree	62 (44.29)	22 (34.38)	4 (28.57)	5 (29.41)	48 (39.02)	20 (46.51)	0 (.00)	4 (36.36)
Strongly Disagree	28 (20.00)	18 (28.13)	1 (7.14)	0 (.00)	21 (17.07)	14 (32.56)	0 (.00)	0 (.00)
People think differently about what is important in helping a person get ahead. Which one do you think is most important in helping a person get ahead?								
Brains	9 (6.52)	3 (4.69)	1 (7.14)	0 (.00)	6 (4.92)	1 (2.33)	0 (.00)	0 (.00)
Personality	12 (8.70)	11 (17.19)	0 (.00)	2 (11.76)	13 (10.66)	10 (23.26)	0 (.00)	0 (.00)
Knowing the right people	5 (3.62)	5 (7.81)	1 (7.14)	2 (11.76)	11 (9.02)	2 (4.65)	0 (.00)	2 (18.18)
Good Luck	0 (.00)	0 (.00)	0 (.00)	0 (.00)	0 (.00)	0 (.00)	0 (.00)	0 (.00)

APPENDIX TABLE 29-V -- Continued

	NYC				Control			
	White	Negro	Mexican American	American Indian	White	Negro	Mexican American	American Indian
Hard Work	45 (32.61)	11 (17.19)	5 (35.71)	3 (17.65)	31 (25.41)	5 (11.63)	0 (.00)	6 (54.55)
A Good Education	60 (43.48)	33 (51.56)	7 (50.00)	10 (58.82)	54 (44.26)	23 (53.49)	1 (100.00)	2 (18.18)
I Don't Know	7 (5.07)	1 (1.56)	0 (.00)	0 (.00)	7 (5.74)	2 (4.65)	0 (.00)	1 (9.09)

Notes: (a) The statistics are the number of observations in the cell and the percent in each cell based on column totals for each attitudinal question.

APPENDIX VI: FIELD QUESTIONNAIRE

INTERVIEWER: BEGIN YOUR INTERVIEW BY READING THE FOLLOWING STATEMENT.

Hello. My name is _____. I am employed by the Industrial Relations Research Institute at the University of Wisconsin at Madison, Wisconsin. The University of Wisconsin with the cooperation of your local high school and your local Neighborhood Youth Corps is conducting a study of the Neighborhood Youth Corps. You were selected to be a member of this study. With your permission, we would like to ask you some questions about your high school experience and about your possible experiences with the Neighborhood Youth Corps. Before we begin, I would like to assure you that your answers to any of these questions are strictly confidential. This is a statistical study like a Census and no one's name or address will be revealed in the study.

First of all, we have to double check and make sure that you are eligible to be a member of the study sample. I need to ask three questions in order to determine this.

I. First, when were you born? _____ month/year.

INTERVIEWER: IF THE RESPONDENT WAS BORN BETWEEN JULY 1, 1944 AND JULY 1, 1950, THEN HE IS ELIGIBLE TO PARTICIPATE IN THE STUDY ON THE BASIS OF AGE. PROCEED TO THE NEXT QUESTION.

II. Next, how many people on the average, were in your family during the time when you were attending high school?

_____ persons/year.

III. Did your family make its living by farming while you were in high school? /YES/ /NO/

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Expires 8-29-69

INTERVIEWER: IF THE RESPONDENT ANSERS "NO" TO QUESTION III, FIND THE INCOME LISTED IN COLUMN A OF THE CHART BELOW WHICH COMPARES TO HIS FAMILY SIZE. IF THE RESPONDENT ANSWERS "YES" TO QUESTION III, FIND THE INCOME LISTED IN COLUMN B OF THE CHART BELOW WHICH COMPARES TO HIS FAMILY SIZE. THEN ASK HIM QUESTION IV.

Family Size	Total Annual Cash Income For Families Not Living On A Farm	Total Annual Cash Income For Farm Families
	Column A	Column B
1	$1,600	$1,100
2	2,000	1,400
3	2,500	1,800
4	3,200	2,200
5	3,800	2,700
6	4,200	2,900
7	4,700	3,300
8	5,300	3,700
9	5,800	4,100
10	6,300	4,400
11	6,800	4,800
12	7,300	5,100
13 or more	7,800	5,500

IV. Finally, on the average, did your family earn an income which was more than, the same, or less than $ _____ (enter the figure from the Chart) for those years while

you were in high school?

/____/ More than. (INTERVIEWER: DO NOT CONTINUE WITH THE INTERVIEW IF THIS PERSON IS A MEMBER OF THE CONTROL GROUP (NAME LIST FROM LOCAL HIGH SCHOOL).)

/___/ The same or less than. (INTERVIEWER: CONTINUE WITH THE INTERVIEW.)

INTERVIEWER: REGARDLESS OF THE ANSWERS TO THE ABOVE, A PERSON IN THE NYC EXPERIMENTAL GROUP WILL BE ELIGIBLE FOR INTERVIEWING. FOR A MEMBER OF THE CONTROL GROUP (NAME LIST FROM LOCAL HIGH SCHOOL), IF THE INCOME THE RESPONDENT REPORTS TO YOU IS EQUAL TO OR LESS THAN THE FIGURE ON THE CHART, THEN HE IS ELIGIBLE TO BE A MEMBER OF THE STUDY SAMPLE. CONTINUE WITH THE INTERIVEW. IF, FOR HIS FAMILY SIZE, THE INCOME HE REPORTS IS LARGER, THEN HE IS NOT ELIGIBLE TO BE A MEMBER OF THE STUDY. THANK THE PERSON AND PROCEED TO THE NEXT NAME ON YOUR LIST.

NYC PROGRAM CODE NUMBER _____ IDENTIFICATION NUMBER _____

A. First, we are interested in knowing about your high school experience.

1. What month and year did you first begin high school? _____ month/year

2. Did you graduate from high school?

/YES/ IF YES, ANSWER QUESTION 3 THROUGH 8 BELOW:

/NO/ IF NO, GO TO QUESTION 9.

3a. When did you graduate? _____ month/year

3b. What was the name of the high school you graduated from?

_____

4. Did you at any time drop out of high school for a short period before you finally graduated?

/NO/ IF NO, GO TO QUESTION 8.

/YES/ IF YES, GO TO QUESTION 5.

5. How many times? _____

6. What are the dates when you dropped out?

a. Most recent dropout period:

From: _____ month/year To: _____ month/year

b. Second dropout period:

From: _____ month/year To: _____ month/year

GO TO QUESTION 7.

9. Are you still attending high school?

/YES/ IF YES, ANSWER QUESTION 10 THROUGH 13 BELOW:

/NO/ IF NO, GO TO QUESTION 14.

10a. What is the name of the high school you are in now?

_____

10b. In what city or place is this high school located?

_____

10c. What grade are you in now?

/ 9 First Half/ / 9 Last Half/

/10 First Half/ /10 Last Half/

/11 First Half/ /11 Last Half/

/12 First Half/ /12 Last Half/

11. Up to the present time, have you at any time dropped out of high school?

/NO/ IF NO, GO TO QUESTION 18.

/YES/ IF YES, how many times?

_____.

GO TO QUESTION 12.

14a. How many times have you dropped out of high school, including the most recent time?_____

14b. What is the name of the high school you attended when you last dropped out?_____

14c. In what city or place was this high school located?

_____

15. What are the dates when you dropped out?

a. Most recent dropout period:

From: _____ month/year To: _____ month/year

b. Second dropout period:

From: _____ month/year To: _____ month/year

c. Third dropout period:

From: _____ month/year To: _____ month/year

GO TO QUESTION 16.

7. Why did you drop out at that time?

a. Most recent dropout period:

_____

_____

b. Second dropout period:

_____

_____

8a. Have you attended a junior college or a four-year college or university for any period of time since high school graduation?

/NO/ IF NO, GO TO QUESTION 18.

/YES/ IF YES, GO TO QUESTION 8b.

8b. How many complete semesters or quarters did you attend?

_____ semester(s); quarter(s) (circle one)

GO TO QUESTION 18.

12. What are the dates when you dropped out?

a. Most recent dropout period:

From: _____ To: _____
month/year month/year

b. Second dropout period:

From: _____ To: _____
month/year month/year

c. Third dropout period:

From: _____ To: _____
month/year month/year

13. Why did you drop out at that time?

a. Most recent dropout period:

_____

_____

b. Second dropout period:

_____

_____

c. Third dropout period:

_____

_____

GO TO QUESTION 18.

16. Why did you drop out at that time?

a. Most recent dropout period:

_____

_____

b. Second dropout period:

_____

_____

c. Third dropout period:

_____

_____

17. What was the highest grade of senior high school you completed, not the grade you were in when you dropped out?

/ 9 First Half/ / 9 Last Half/
/10 First Half/ /10 Last Half/
/11 First Half/ /11 Last Half/
/12 First Half/

GO TO QUESTION 18.

18. Of the subjects that you took (are taking) in high school, how many would you say were (are) really interesting? (INTERVIEWER: HAND RESPONDENT CARD 1 SHOWING THE LIST OF CHOICES AND ASK HIM TO SELECT THE MOST CORRECT CHOICE.)

1. /___/ All of them. 2. /___/ Most of them. 3. /___/ About half of them.

4. /___/ Only one or two. 5. /___/ None of them.

19. Were (are) the marks you got (are getting) in school your last year (this year) any better than the ones you got the year before? Or were (are) they worse? Or just the same? (INTERVIEWER: HAND RESPONDENT CARD 2 SHOWING THE LIST OF CHOICES AND ASK HIM TO SELECT THE MOST CORRECT CHOICE.)

1. /___/ A lot better 2. /___/ A little better. 3. /___/ Just the same.

4. /___/ A little worse. 5. /___/ A lot worse.

20. How much time, on the average, did (do) you spend doing homework in high school and at home? Specify the number of hours per week. _____ hours/week.

21. Have any of your close friends ever dropped out of high school?

/___/ IF NO, GO TO QUESTION 23.

/___/ IF YES, GO TO QUESTION 22.

22. About how many of your friends dropped out of high school, including those who dropped out but who returned to high school? (Record actual number.) _____

B. Neighborhood Youth Corps Experience: Now we would like to ask you some questions about your possible participation in the Neighborhood Youth Corps.

23. When you were in high school, did you ever hear of the Neighborhood Youth Corps program?

/NO /

/YES/

24. Have you ever applied for admission into a Neighborhood Youth Corps program?

/NO/ IF NO, GO TO QUESTION 25.

/YES/ IF YES, GO TO QUESTION 26a.

25. Why was it that you did not apply for admission into the Neighborhood Youth Corps program? _____

_____

GO TO QUESTION 40.

26a. Have you ever been enrolled in a Neighborhood Youth Corps program?

/NO/ IF NO, GO TO QUESTION 40.

/YES/ IF YES, GO TO QUESTION 26b.

26b. Did you actively take part in the program?

/NO/ IF NO, GO TO QUESTION 40.

/YES/ IF YES, GO TO QUESTION 27.

27. How many different jobs did you have while you were enrolled in the Neighborhood Youth Corps program? (Record actual number.)_____

For each program job, answer Questions 28 to 39 below.

	First Program Job	Second Program Job	Third Program Job	Fourth Program Job
28. From	_____ month/year	_____ month/year	_____ month/year	_____ month/year
29. To	_____ month/year	_____ month/year	_____ month/year	_____ month/year
30. What was (is) your job?	_____	_____	_____	_____
31. What did (does) the organization, governmental unit, or company do or make?	_____	_____	_____	_____
32. Final (or current) hourly wage rate (before deductions).	$ _____/hour	$ _____/hour	$ _____/hour	$ _____/hour

	First Program Job	Second Program Job	Third Program Job	Fourth Program Job
33. Hours worked per week.	_____ hours/week	_____ hours/week	_____ hours/week	_____ hours/week
34. In general, did (do) you like the kind of work you were (are) doing? Why or why not?	/YES/ /NO/ _____ _____	/YES/ /NO/ _____ _____	/YES/ /NO/ _____ _____	/YES/ /NO/ _____ _____
35. What type of NYC program did you take (are you taking) part in?	/___/ In-School /___/ Summer /___/ Both	/___/ In-School /___/ Summer /___/ Both	/___/ In-School /___/ Summer /___/ Both	/___/ In-School /___/ Summer /___/ Both
36. When you enrolled in the NYC program, were you told that your enrollment was for a limited period of time or were you told that you could stay in the program as long as you wished?	/___/Limited period of time. GO TO QUESTION 37. /___/As long as you wished. GO TO QUESTION 38.	/___/Limited period of time. GO TO QUESTION 37. /___/As long as you wished. GO TO QUESTION 38.	/___/Limited period of time. GO TO QUESTION 37. /___/As long as you wished. GO TO QUESTION 38.	/___/Limited period of time. GO TO QUESTION 37. /___/As long as you wished. GO TO QUESTION 38.
37. Did you complete (are you still participating in) the program you were taking part in or did you drop out of it?	/___/Still participating. GO TO QUESTION 38. /___/Completed GO TO QUESTION 38. /___/Dropped out GO TO QUESTION 39.	/___/Still participating. GO TO QUESTION 38. /___/Completed GO TO QUESTION 38. /___/Dropped out GO TO QUESTION 39.	/___/Still participating. GO TO QUESTION 38. /___/Completed GO TO QUESTION 38. /___/Dropped out GO TO QUESTION 39.	/___/Still participating ting. GO TO QUESTION 38. /___/Completed GO TO QUESTION 38. /___/Dropped out GO TO QUESTION 39.
38. IF COMPLETED OR STILL PARTICIPATING: What benefits do you think you received because you participated in the NYC program?	_____ _____ GO TO QUESTION 40.	_____ _____ GO TO QUESTION 40.	_____ _____ GO TO QUESTION 40.	_____ _____ GO TO QUESTION 40.
39. IF DROPPED OUT: Why did you drop out of the program?	_____ _____	_____ _____	_____ _____	_____ _____

C. Here are a few questions now about military service.

40. Have you ever been on continuous active military duty for six months or longer?

/NO/ IF NO, GO TO SECTION D.

/YES/ IF YES, PLEASE ANSER QUESTIONS 41 AND 42.

41. What month and year did you enter the military service? _____ month/year

42. What month and year were you (or will you be) released from active military service? _____ month/year

D. Training Programs When Not Enrolled as a Regular Daytime High School Student or as a Student of a College or University. Next, we would like to ask you some questions concerning any courses or training you have taken since you were enrolled as a regular daytime high school student.

INTERVIEWER: IS THE RESPONDENT STILL IN HIGH SCHOOL?

/NO/ IF NO, GO TO QUESTION 43.

/YES/ IF YES, GO TO QUESTION 50.

43. Have you ever taken any educational or training programs since you left high school such as private or public vocational school courses or apprenticeship training? Do not include college credit programs taken in post-high school vocational or technical high school.

/NO/ IF NO, GO TO QUESTION 50.

/YES/ IF YES, ANSWER QUESTIONS 44 TO 49 BELOW.

	First Training Program	Second Training Program
44. What skill or job did the program train you for?		
45. Why did you take this program?		

	First Training Program	Second Training Program
46. When did you start and leave the program?	From: _____ To: _____ month/year month/year	From: _____ To: _____ month/year month/year
47. Did you finish the program?	/YES/ /NO/	/YES/ /NO/
48. Who suggested or required the training?	/___/ I took it on my own initiative. /___/ Government /___/ Armed Forces /___/ Company I work for /___/ Other (Specify) _____	/___/ I took it on my own initiative. /___/ Government /___/ Armed Forces /___/ Company I work for /___/ Other (Specify) _____
49. Did the NYC encourage you in any way to take part in this training?	/YES/ IF YES, In what way? _____ _____ /NO/ /NOT APPLICABLE/ (Never in NYC)	/YES/ IF YES, In what way? _____ _____ /NO/ /NOT APPLICABLE/ (Never in NYC)

E. Next, we'd like to talk about your high school work experience except for the work you did while in NYC (date enrolled in NYC _____) or about your high school work experience even if you were never in NYC.
month/year

NOTE TO INTERVIEWER: IF INTERVIEWING AN NYC PERSON, USE THESE QUESTIONS UNDER SECTION E TO GET INFORMATION ABOUT HIS WORK EXPERIENCE NOT INCLUDING WORK DONE WHILE IN THE NYC. IF INTERVIEWING A NON-NYC PERSON, USE THESE QUESTIONS TO FIND OUT ABOUT HIS HIGH SCHOOL WORK EXPERIENCES. HOWEVER, DO NOT COUNT BABY-SITTING. ALSO, DO NOT COUNT FAMILY EMPLOYMENT UNLESS A WAGE IS PAID.

50. Have you ever had a job lasting one month or more not including experience in NYC, or if you were never in the NYC, while still in high school?

/NO/ IF NO, GO TO QUESTION 57.

/YES/ IF YES, ANSWER QUESTIONS 51 THROUGH 56 FOR EACH JOB.

If you held more than one job at the same time, just list them both. Again, let us assure you that this is a statistical study and your answers will be held in the strictest confidence.

NOW, starting with the job you now have or your most recent job and working backward to the first job you had while in high school (or exclusive of the Neighborhood Youth Corps experience):

	Current or Most Recent Job	Next Most Recent Job
51. What was (is) this job or occupation called? That is, what were (are) your duties on this job?		
52. What did (does) the company you worked (work) for make or do? That is, what was (is) its industry?		
53. What month and year did you start and leave this job?	Start: _____ (month/year) Leave: _____ (month/year)	Start: _____ (month/year) Leave: _____ (month/year)

	Current or Most Recent Job	Next Most Recent Job
54. What was (is) your final (current) hourly wage rate (before deductions)? If you received (receive) any tips, how much per week?	Wage rate: $_____/hour Tips: /___/ None or $ _____/week	Wage rate: $_____/hour Tips: /___/ None or $ _____/week
55. How many hours per week on the average did (do) you work?	_____ hours/week	_____ hours/week
56. How did you hear about this job?	/___/ Employment Service /___/ Private Employment Agency /___/ School /___/ Friends or Relatives /___/ Previous Employer /___/ Advertisements /___/ Direct Application /___/ Other (Specify): _____	/___/ Employment Service /___/ Private Employment Agency /___/ School /___/ Friends or Relatives /___/ Previous Employer /___/ Advertisements /___/ Direct Application /___/ Other (Specify): _____

F. If you are out of high school, we'd like to ask you next about your work experience after you left high school. (INTERVIEWER: IF RESPONDENT IS STILL IN HIGH SCHOOL, GO TO QUESTION 77.)

57. Have you held a job for one month or longer at any time since you left high school (OTHER THAN NYC WORK?)

/NO/ IF NO, GO TO QUESTION 69.

/YES/ IF YES, PLEASE ANSWER QUESTIONS 58 THROUGH 68 FOR EACH JOB HELD. If you held more than one job at the same time, just list them both. Again, let us assure you that this is a statistical study and your answers will be held in the strictest confidence.

Now, starting with the job you now have or your most recent job and working backward to the first job you had after leaving high school:

	Current or Most Recent Job	Next Most Recent Job	Next Job
58. What was (is) this job or occupation called? That is, what were (are) your duties on this job?	_____ _____	_____ _____	_____ _____
59. What did (does) the company you worked (work) for make or do? That is, what was (is) its industry?	_____ _____	_____ _____	_____ _____
60. Was (Is) this work like the work you did while you were in the NYC?	/YES/ /NO/ /NOT APPLICABLE/ Never in NYC	/YES/ /NO/ /NOT APPLICABLE/ Never in NYC	/YES/ /NO/ /NOT APPLICABLE/ Never in NYC
61. Did (Do) you like this job?	/YES/ /NO/	/YES/ /NO/	/YES/ /NO/
62. Why or why not?	_____	_____	_____

	Current or Most Recent Job	Next Most Recent Job	Next Job
63. What month and year did you start and leave this job?	Start: ________ month/year Leave: ________ month/year	Start: ________ month/year Leave: ________ month/year	Start: ________ month/year Leave: ________ month/year
64. What was (is) your final (current) hourly wage rate (before deductions)?	$ ______/hour	$ ______/hour	$ ______/hour
65. How many hours per week on the average did (do) you work?	______hours/week	______hours/week	______hours/week
66. How did you hear about this job?	/__/ Employment Service /__/ Private Employment Service /__/ Friends or Relatives /__/ Previous Employer /__/ Advertisements /__/ Direct Application /__/ NYC /__/ Other (Specify): ________	/__/ Employment Service /__/ Private Employment Service /__/ Friends or Relatives /__/ Previous Employer /__/ Advertisements /__/ Direct Application /__/ NYC /__/ Other (Specify): ________	/__/ Employment Service /__/ Private Employment Service /__/ Friends or Relatives /__/ Previous Employer /__/ Advertisements /__/ Direct Application /__/ NYC /__/ Other (Specify): ________

	Current or Most Recent Job	Next Most Recent Job	Next Job
67. Did you hear about your job or get your job with the help of any type of federal government program such as JOBS, the Job Corps, or some other similar program?	/YES/ GO TO QUESTION 68. /NO/ GO TO QUESTION 69.	/YES/ GO TO QUESTION 68. /NO/ GO TO QUESTION	/YES/ GO TO QUESTION 68. /NO/ GO TO QUESTION 69.
68. IF YES TO QUESTION 67, which program was it?	/___/ JOBS /___/ Job Corps /___/ New Careers /___/ Operation Mainstream /___/ VISTA /___/ Manpower Training /___/ Other (Specify): _____	/___/ JOBS /___/ Job Corps /___/ New Careers /___/ Operation Mainstream /___/ VISTA /___/ Manpower Training /___/ Other (Specify): _____	/___/ JOBS /___/ Job Corps /___/ New Careers /___/ Operation Mainstream /___/ VISTA /___/ Manpower Training /___/ OTHER (Specify): _____

G. Periods When You Were Not Working Since You Left High School. Now we would like to ask you about those periods since you left high school when you were not working or did not have a job.

69. Since you left high school, were there any periods of one month or longer when you were not working or did not have a job?

/NO/ IF NO, GO TO QUESTION 77.

/YES/ IF YES, PLEASE ANSWER QUESTIONS 70 THROUGH 76 FOR EACH PERIOD.

	Current or Most Recent Period	Next Most Recent Period	Next Period
70. When did this period of not working or not having a job begin and end?	From: _____ month/year To: _____ month/year	From: _____ month/year To: _____ month/year	From: _____ month/year To: _____ month/year
71. Why was (is) it that you were (are) not working or did (do) not have a job?	_____ _____	_____ _____	_____ _____
72. How much, if any, unemployment compensation did (do) you collect each week during this period of time when you were (are) not working or did (do) not have a job? IF NONE, GO TO QUESTION 74.	/NONE/ or$_____/week	/NONE/ or $_____/week	/NONE/or $_____/week
73. For how many weeks did you collect this (have you collected this)?	_____/weeks	_____/weeks	_____/weeks
74. In what other ways (besides unemployment compensation) did you get (are you getting) help during this period?	/___/ None /___/ Welfare Aid /___/ Family /___/ Loans /___/ Savings /___/ Other	/___/ None /___/ Welfare Aid /___/ Family /___/ Loans /___/ Savings /___/ Other	/___/ None /___/ Welfare Aid /___/ Family /___/ Loans /___/ Savings /___/ Other

	Current or Most Recent Period	Next Most Recent Period	Next Period
75. If help was (is) received from any source other than unemployment compensation, how much did (does) it amount to per week?	$ _____/week	$ _____/week	$ _____/week
76. How many weeks did you receive (have you received) this help?	_____/weeks	_____/weeks	_____/weeks

H. Now we would like to ask you some general questions to help us carry out our statistical analysis:

77. Have you ever been married?

/YES/ IF YES, GO TO QUESTION 78.

/NO/ IF NO, GO TO QUESTION 81.

78. What month and year were you married? _____ month/year

79. Are you married now?

/YES/ IF YES, GO TO QUESTION 81.

/NO/ IF NO, GO TO QUESTION 80.

80. What month and year were you divorced, separated, or widowed? _____ month/year

81. Who is the head of the household you live in now?

/___/ I am

/___/ Husband (or wife)

/___/ Other _____ (Please specify relationship to you.)

82. How many dependents do you (or your head of household) now have, not counting yourself (or your head of household)? _____.

83. If you (or your head of household) have one or more dependents, in what year did they become members of your family? First dependent, _____ (year); second, _____(year); third, _____ (year); fourth, _____ (year); fifth, _____ (year); sixth, _____ (year).

84. Did your father (step-father or guardian) live with your family for the majority of the time when you were growing up?

/YES/ /NO/

85. What was your father's (step-father's or guardian's) main occupation for the majority of the time when you were growing up? _____.

86. Was your mother (step-mother or guardian) employed for the majority of the time when you were growing up? /YES/ IF YES, GO TO QUESTION 87.

/NO/ IF NO, GO TO QUESTION 88.

87. What was her occupation? _____.

88. How many years of school did your father (step-father or guardian) complete? _____years.

89. How many years of school did your mother (step-mother or guardian) complete? _____years.

90. What was the average annual income your family earned during the time when you were attending high school?

$_____/year.

I. Finally, in this last section of the interview, we'd like to ask you some general questions concerning your feelings about things like college education.

91. How important is it to have a college education in order to be respected and looked up to by most people around here? (INTERVIEWER: ASK RESPONDENT TO CHOOSE FROM THIS LIST OF ALTERNATIVES. HAND RESPONDENT CARD 3 SHOWING THE LIST OF ALTERNATIVES) Please indicate the number of your choice.

1. /___/ Absolutely necessary
2. /___/ It helpd but isn't necessary
3. /___/ Doesn't matter one way or the other
4. /___/ You're better off without it

18.

19.

20.

21.

22

B.

23

24

92. How important is it to have a college education in order to get a good paying job around here?

1. /___/ Absolutely necessary
2. /___/ It helps but isn't necessary
3. /___/ Doesn't matter one way or the other
4. /___/ You're better off without it

93. People think differently about what is <u>important in helping a person get ahead</u>. We'd like to know what you think. We have made a list of six things people think are important. (INTERVIEWER: HAND RESPONDENT CARD 4 SHOWING THE LIST OF ALTERNATIVES.) Which one do you think is most important in helping a person get ahead? Please indicate the number of your choice.

1. /___/ Brains
2. /___/ Personality
3. /___/ Knowing the right people
4. /___/ Good luck
5. /___/ Hard work
6. /___/ A good education
7. /___/ I don't know

94. Using the same list, which one do you think is next most important?

1. /___/ Brains
2. /___/ Personality
3. /___/ Knowing the right people
4. /___/ Good luck
5. /___/ Hard work
6. /___/ A good education
7. /___/ I don't know

95. Is there any particular line of work that you'd really like to get into?

/YES/ IF YES, GO TO QUESTIONS 96 AND 97.

/NO/ IF NO, GO TO QUESTION 98.

96. What line of work is that? (Please write the specific <u>type</u> of work, NOT the name of a business firm.)

_____

97. And in what type of industry or business? _____

(INTERVIEWER: FOR QUESTION 98, 99, AND 100 READ THE WORD "NYC" WHERE INDICATED IF THE RESPONDENT WAS EVER IN NYC. READ THE WORK "MOST RECENT" WHERE INDICATED FOR OTHER PERSONS. ALSO, FOR EACH OF THE FOLLOWING QUESTIONS, ASK THE RESPONDENT TO CHOOSE FROM THE LIST OF ANSWERS THAT GOES WITH QUESTION.)

98. How much did you like the kind of work you did in your (NYC; most recent) job? (INTERVIWER: HAND RESPONDENT CARD 5 SHOWING THE LIST OF ALTERNATIVES.) Which choice best describes your feelings about this job?

1. /___/ I liked it very much.
2. /___/ I don't like it much.
3. /___/ It's OK.
4. /___/ I don't like it at all.

99. How satisfied were you with your (NYC; most recent) hourly wage rate? (INTERVIEWER: HAND RESPONDENT CARD 6 SHOWING THE LIST OF ALTERNATIVES.) Which choice best describes your feelings about your wage rate?

1. /___/ Very satisfied.
2. /___/ Pretty satisfied.
3. /___/ Not so satisfied.
4. /___/ Definitely not satisfied.

100. How did you feel about your (NYC; most recent) immediate supervisor? (INTERVIEWER: HAND RESPONDENT CARD 7 SHOWING THE LIST OF ALTERNATIVES.) Which choice best describes your feelings about your supervisor? 33.

1. /___/ A very good boss to work for
2. /___/ A fairly good boss to work for 34.
3. /___/ Not so good to work for
4. /___/ Bad to work for

(INTERVIEWER: THE NEXT FIVE QUESTIONS, 101 TO 105, PERTAIN ONLY TO NYC PERSONS. IF THE RESPONDENT HAS NOT BEEN IN THE NYC, GO TO QUESTION 106. 35.

The next section of the questionnaire consists of statements with which you may or may not happen to agree. If you STRONGLY AGREE with the statement, say "Strongly Agree" (1); if you just AGREE, then say "Agree" (2); if you can't make up your mind, say "Not Sure" (3); if you DISAGREE, say "Disagree" (4); and if you STRONGLY DISAGREE, say "Strongly Disagree" (5). (INTERVIEWER: HAND RESPONDENT CARD 8 AND ASK HIM TO CHOOSE AN ANSWER FROM THE LIST.) 36.

Do you agree, disagree, etc., with these general statements?

101. /___/ Participating in the NYC has probably increased my chances of getting a better job in the future.
102. /___/ Participating in the NYC has probably decreased my chances of graduating from high school.
103. /___/ Participating in the NYC has increased my self-respect.
104. /___/ Participating in the NYC has not improved my attitudes toward work. 37.
105. /___/ Participating in the NYC has improved my attitudes toward education.

(INTERVIEWER: THE NEXT FIVE QUESTIONS, 106 TO 110, PERTAIN ONLY TO NON-NYC PERSONS. IF THE RESPONDENT WAS IN THE NYC, GO TO QUESTION 111.)

The next section of the questionnaire consists of statements with which you may or may not happen to agree. If you STRONGLY AGREE with the statement, say "Strongly Agree" (1); if you just AGREE, then say "Agree" (2); if you can't make up your mind, say "Not Sure" (3); if you DISAGREE, say "Disagree" (4); and if you STRONGLY DISAGREE, say "Strongly Disagree" (5). (INTERVIEWER: HAND RESPONDENT CARD 8 AND ASK HIM TO CHOOSE AN ANSWER FROM THE LIST.) 38.

Do you agree, disagree, etc., with these general statements?

106. /___/ My most recent job probably increased my chances of getting a better job in the future.
107. /___/ My most recent job probably decreased my chances of graduating from high school. 39.

108. /___/ My most recent job increased my self-respect.

109. /___/ My most recent job has <u>not</u> improved my attitudes toward work.

110. /___/ My most recent job improved my attitudes toward education.

(INTERVIEWER: THE REMAINING QUESTIONS, 111 TO 119, APPLY TO ALL PERSONS BEING INTERVIEWED.

This final set of questions consists of statements with which you may or may not happen to agree. If you STRONGLY AGREE with the statement, say "Strongly Agree" (1); if you just AGREE, then say "Agree" (2); if you can't make up your mind, say "Not Sure" (3); if you DISAGREE, say "Disagree" (4); and if you STRONGLY DISAGREE, say "Strongly Disagree" (5). (INTERVIEWER: HAND RESPONDENT CARD 8 AND ASK HIM TO CHOOSE AN ANSWER FROM THE LIST.)

Do you agree, disagree, etc., with these general statements?

111. /___/ Work is the only way to survive.

112. /___/ So long as I earn enough to live decently, I don't care too much what kind of work I do.

113. /___/ Work is so interesting that people do it even if they don't need the money.

114. /___/ On most jobs you don't get ahead by working hard; you get ahead by knowing the right people.

115. /___/ On the whole, I am satisfied with myself.

116. /___/ I feel that I do not have much to be proud of.

117. /___/ I am able to do things as well as most other people.

118. /___/ I feel that I am a person of worth, at least on an equal plane with others.

119. /___/ At times I think I am no good at all.

INTERVIEWER: END YOUR INTERVIEW WITH THE FOLLOWING STATEMENT: "THANK YOU VERY MUCH FOR YOUR TIME AND COOPERATION. AGAIN, LET ME RE-EMPHASIZE THAT YOUR ANSWERS AND RESPONSES TO THIS QUESTIONNAIRE ARE STRICTLY CONFIDENTIAL."

INTERVIEWER: DO NOT ASK. ANSWER BY OBSERSERVATION ONLY. DO NOT FILL OUT IN FRONT OF THE RESPONDENT.

120. Is the person being interviewed:

/___/ Male

/___/ Female

121. Is the person being interviewed:

/___/ White

/___/ Negro

/___/ American Indian

/___/ Puerto Rican

/___/ Oriental

/___/ Other

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APPENDIX VII: SCHOOL RECORD DATA SHEET

UNIVERSITY OF WISCONSIN

INDUSTRIAL RELATIONS RESEARCH INSTITUTE

COST-EFFECTIVENESS STUDY OF IN-SCHOOL AND SUMMER NYC

School Record Data Sheet

1. School Name _____

2. School _____

3. Identification Number _____

4. NYC Program Number _____

Note: Items 1 through 4 should be recorded from the Cover Sheet and Questions 3b, 10a, or 14b (whichever applies). Once the questions on the following page are answered from the available school records, this top page should be removed. The page with the school data should have the NYC Program Number and Identification Number recorded on it. It should then be attached to the questionnaire of the person to whom this school data pertains. The School Record Data Sheet and the questionnaire should then be returned to Professor Ernst W. Stromsdorfer, Room 7404 Social Science Building, University of Wisconsin, Madison, Wisconsin 53706. When required, this top page of the School Record Data Sheet should be kept on file at the offices of the local School District along with the Cover Sheet of the questionnaire.

Dated: 1-30-69

NYC Program Number _____ Identification Number _____

Attendance:

1. 9th Grade. Dates attended: From_____ To_____.
   month/year month/year
   Total days absent during this time _____.

2. 10th Grade. Dates attended: From_____ To_____.
   month/year month/year
   Total days absent during this time _____.

3. 11th Grade. Dates attended: From_____ To_____.
   month/year month/year
   Total days absent during this time.

4. 12th Grade. Dates attended: From_____ To_____.
   month/year month/year
   Total days absent during this time.

5. Has the student graduated? /YES/ GO TO QUESTION 7.
   /NO/ GO TO QUESTION 6.

6. Is the student a dropout? /YES/ /NO/ Or is he still attending school? /YES/ /NO/

Test Information:

7. Has an IQ or similar test been taken by the student? /YES/ GO TO QUESTION 8. /NO/ GO TO QUESTION 12.

8. What was the score on this test? _____

9. Is this an adjusted /___/ or a raw /___/ score?

10. What is the name of the IO or other test? _____

11. When was the test given? _____

Scholastic Performance:

12. What is the student's relative class standing? Number _____ in a class of _____ students.

13. What are the total number of credits or units the student has earned to date? _____ credits or units.

14. For the total number of credits or units reported in Question 13 above, how many credits or units are for scholastic performance which is average or above average for the: 10th Grade_____; 11th Grade_____; 12th Grade_____?

15. How many credits or units are needed for graduation in this school system? _____

16. Has the student ever been disciplined by the school officials?
/YES/ GO TO QUESTION 17.
/NO/

17. How many separate incidents of discipline have there been? _____

18. If YES to Question 16, has the student ever been suspended due to disciplinary action?
/YES/ GO TO QUESTION 19.
/NO/

19. What are the dates when this suspension occurred? From: _____
month/year

To: _____
month/year

800-500