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ABSTRACT

The Younger Adult Worker (YAW) study examined the long-range impact of participation in vocational education through a national cross-sectional survey of 1,539 persons aged 20 to 24 who were in the civilian labor force. After supplementing study data with data from two other national data bases, researchers drew conclusions pertaining to the long-range effects of vocational education on participants' earnings, employment, education, and aspirations. Included among the main findings of the study were the following: (1) both men and women vocational graduates generally earned more than did graduates of general curriculum programs, and indirect effects of vocational education on earnings are felt through all forms of postsecondary education as well as through tenure and unionization; (2) participation in vocational education was associated with a lower likelihood of unemployment; (3) overall, vocational graduates were more satisfied with the adequacy of their preparation to get a job than were their general curriculum graduate peers; and (4) female vocational graduates most frequently aspired to professional and clerical jobs, whereas male graduates generally aspired to managerial, professional, and crafts occupations. Recommendations called for further research concerning the effect of vocational education on later labor market experiences, dropout prevention, and achieving sex equity. (MN)

VOCATIONAL EDUCATION AND THE YOUNGER ADULT WORKER

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF TABLES (continued)

LIST OF TABLES (continued)

LIST OF TABLES (continued)

LIST OF TABLES (continued)

LIST OF TABLES (continued)

LIST OF TABLES (continued)

LIST OF TABLES (continued)

LIST OF TABLES (continued)

LIST OF TABLES (continued)

LIST OF FIGURES

FOREWORD

The long-term effects of participating in vocational education at the secondary and postsecondary levels are of interest to planners, policymakers, researchers, and practitioners at the federal, state, and local levels. Empirical evidence of the long-range effects of publicly funded programs can furnish a basis for informed decision making. The study "Vocational Education and the Younger Adult Worker" provides such information about individuals fifteen years after their high school graduation.

This report answers such questions as: What are the long-term effects of participating in vocational education at the secondary and postsecondary levels? How do former vocational education students feel about their job preparation in relation to their career? How do the earnings of secondary vocational graduates compare with those of other program's graduates?

This report includes the results of an analysis of a new national data base, the Younger Adult Workers. The Gallup Organization determined the final sample and field-tested and administered the questionnaire. Mitchell E. Cohen, Senior Researcher at the Gallup Organization, supervised the work done under this subcontract.

Funding for the study was provided by the U.S. Department of Education, Office of Vocational and Adult Education.

This project was conducted in the Evaluation and Policy Division of the National Center for Research in Vocational Education. Donna M. Mertens, Project Director, and John Gardner had the primary responsibility for data analysis and report preparation. Other staff members who assisted in the early phases of the project included Jill Russell, Lee Rasmussen, and Mark Whitmore. Computer programming was provided by Marta Fisch, Ken Kutler, and Jeff Parrott. The project staff wishes to thank the secretaries who played such an important role in the preparation of the manuscript, including Deborah Anthony, Kathie Medley, Bernice DeHart, and Priscilla Ciulla.

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most useful in enhancing the quality of the final report. Final editing of the report was directed by Janet Kiplinger of the National Center editorial staff.

Robert E. Taylor
Executive Director
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in Vocational Education

EXECUTIVE SUMMARY

The Younger Adult Workers (YAW) study examined the long-range impact of participation in vocational education through a national cross-sectional survey of 1,539 persons aged twenty to thirty-four who were in the civilian labor force. The results of the Younger Adult Workers Survey were supplemented by analyses of two other national data bases--the National Longitudinal Surveys of Labor Market Experiences for Younger Men and Young Women (NLS - LME Boys and Girls) and the National Longitudinal Study of the High School Class of 1972 (Class of '72).

Critics of vocational education contend that because the vocational curriculum prepares students for immediate employment, it limits longer-term opportunities. Vocational education does so, these critics allege, by directing, or "tracking;" disadvantaged, minority, and female youngsters into programs that prepare them for low status, low paying jobs that offer no opportunity for advancement. The results concerning earnings for the three curriculum groups definitely discount the allegations that vocational education prepares youngsters for low status, low paying jobs. Positive earnings effects were found for male marketing and trade graduates, as well as for female business and trade graduates. However, consistently negative effects on earnings were found for women in the "other" vocational category, as well as for women as compared to men. On the positive side, unemployment was reduced, especially for business and marketing females.

Retrospectively, vocational graduates expressed a high degree of satisfaction with their high school curriculum. Generally, graduation from a vocational high school curriculum was not strongly associated with completion of traditional post-secondary education. However, it was associated with completion of nontraditional postsecondary experiences such as apprenticeship and employer-sponsored training, and completion of these programs was associated with higher earnings.

The most important findings from this study were as follows:

I. Earnings

A. Among men on the most recent job, after controlling for personal characteristics, YAW and Class of '72 data showed that marketing was associated with higher earnings than for general curriculum, business, and other vocational programs. None of the effects were strictly

significant. In the YAW data set, men in trade earned more, but in the Class of '72 they earned significantly less than general students. When postsecondary education is controlled, men in trade earned significantly more than general students in the Class of '72.

B. Postsecondary vocational education had significant positive effects on earnings for men in the Class of '72 data. Privately-administered (but not publicly administered) postsecondary vocational education had significantly positive effects for men in the YAW data.

C. When postsecondary education was controlled, women in trade and business courses earned more than those who took a general curriculum, according to data from both the YAW and Class of '72 surveys. Women in marketing tended to earn less than those in a general curriculum.

D. For women in both the YAW and Class of '72 data, graduates of two-year vocational programs tended to earn more than general curriculum high school graduates.

E. For both men and women on their most recent job in both the YAW and Class of '72 data, apprenticeship and employer-sponsored training were associated with higher earnings than for general curriculum high school graduates.

F. Earnings on the first regular full-time job were determined primarily by educational attainment level. There were no significant differences in the YAW data between vocational and general curriculum students.

G. Indirect effects of vocational education on earnings are felt through all forms of postsecondary education. The estimated indirect effects raise expected earnings for completers of employer-sponsored training for men in apprenticeship and for trade specialists who complete two-year school programs. The negative indirect effects arise from the lower probability that vocational students will complete advanced degree or four-year college programs.

H. Indirect effects are also found through the effects on tenure and unionization. The tenure effects act to raise expected earnings because vocational students tend to have longer tenure on the most recent job. The lower probability that vocational students in business and marketing will be in unionized jobs acts to reduce expected earnings for them.

I. Even within program areas, men usually earned more than women, and white respondents earned more than minority respondents.

II. Employment

A. The YAW data showed that all vocational programs were associated for men with a lower likelihood of being unemployed at the time of the survey, but the association was strictly significant only for a business program. There was no consistent pattern of effect among women in the likelihood of being unemployed at the time of the survey. When personal characteristics and postsecondary attainment were controlled, for neither men nor women was there any direct effect from vocational education on the weeks of unemployment experienced during the past two years.

B. The percentage of vocational students who reported a substantial or fair amount of use of skills learned in high school was relatively high, about 60 percent.

C. More thorough programs that included training in job-hunting skills and teacher assistance in finding work increased the likelihood that students would work in training-related positions on their first jobs. That link between more intensive high school vocational programs and greater use of skills did not extend to the most recent job.

D. Vocational programs tended to be associated with employment in the types of occupations one would expect--agriculture in farming, marketing in sales or clerical jobs, business in managerial or clerical jobs, trade and industry in craft or operative jobs. On the most recent job vocationally educated men were less likely than general students to be in white collar positions but were more likely to be in craft or service jobs.

E. For men on the first job, all vocational programs except marketing were significantly associated with Duncan prestige scores of between three and five points more than general curriculum students. For the most recent job, the positive association continued but was no longer statistically significant. For women, business programs were associated with significantly higher scores, and trade, with significantly lower scores on both jobs.

F. Vocational students were less likely than general or college preparatory students to be self-employed on

either job, but a larger percentage of vocational students moved into self-employment between first and most recent jobs.

III. Education

A. Business, trade, and marketing graduates in the YAW sample rated satisfaction with the adequacy of their preparation to get a job significantly more positively than their general peers.

B. Greater participation in job-related courses, more extensive use of occupational skills, assistance from teachers in job placement, and learning job-seeking skills are all associated with greater satisfaction with job preparation in high school (the YAW sample).

C. Overall, the YAW vocational graduates were more likely than their general peers to indicate that they would repeat their high school curriculum again, even knowing what they know now. The results of regression analyses revealed a consistently significant difference between male vocational graduates in trade, business, and other vocational areas as compared to their general peers. For females, the significant difference appeared for all of the program areas.

D. The YAW male secondary-level marketing graduates reported participation in, completion of, and use of skills learned in their public postsecondary vocational program significantly more often than their general peers. For YAW women, none of the vocational program areas were significantly different from the general curriculum.

E. For YAW men, being in the "other" vocational category was associated with a significantly negative effect on completion of a proprietary vocational school program. For women, the secondary-level trade and industry graduates reported significantly greater participation in, completion of, and use of skills learned in such programs than their general peers.

F. Significant predictors for the YAW data base of completion of a four-year college or university program included graduation from a college prep curriculum and being from a high SES background. Significantly negative coefficients were found for male trade graduates and female business graduates, as compared to their general peers.

G. For both men and women in the YAW and Class of '72 samples, graduation from a trade and industry program was associated with a significantly positive effect on participation in and completion of apprenticeship training.

H. For YAW men, completion of a secondary-level marketing or trade program was significantly associated with greater participation in and completion of employer-sponsored training. For women, the marketing area was associated with greater completion of employer-sponsored training.

IV. Aspirations

A. Vocational graduates in the YAW, Class of '72 and NLS Girls sample most frequently aspired to jobs in the professional and clerical areas. Generally, a lower percentage of vocational than college prep graduates aspired to professional or managerial jobs. For the NLS Boys from a vocational-business program, the managerial and professional categories were most frequently mentioned. The NLS Boys from the other vocational areas mentioned managerial and crafts most often.

B. Based on the YAW survey, 68 percent of vocational, 64 percent of college prep, and 58 percent of general curriculum graduates expressed a need for additional schooling. Significant predictors included the trade program for men and being white for women.

The implications of these findings were discussed in terms of areas in need of further research. These included (1) improvement of the identification of high school curriculum; (2) the effect of self-selection bias; (3) linkages between proximate and more remote effects of high school curriculum; (4) effect of high school work experience on later labor market experiences; (5) effect of vocational education on the prevention of high school dropouts; and (6) the role of vocational education in achieving sex equity.

CHAPTER I

INTRODUCTION

There is a growing body of evidence that for at least some groups of students, participation in vocational education aids in school to work transition and may be associated with certain labor market advantages in the first few years after leaving school (Mertens et al. 1980). Critics of vocational education contend, however, that because the vocational curriculum prepares students for immediate employment, it limits the longer term opportunities. Vocational education does so, these critics allege, by directing, or "tracking," disadvantaged, minority and female youngsters into programs that prepare them for low status, low paying jobs that offer no opportunity for advancement.

Evidence from previous studies has not established whether or not this criticism of vocational education is valid. A comprehensive review of literature on the effects of participating in vocational education found some studies that suggested that secondary vocational graduates report higher earnings than their nonvocational peers immediately after high school, but that this difference seemed to disappear after a few years (Mertens et al. 1980). Most of the studies that were reviewed limited their analyses to a few months or a few years following program completion. When longer time periods were considered, the estimated effects seemed to be different. Fredland and Little (1981), in one of the few long-term effects studies, concluded that mid-career white male workers who had received vocational training, either in the military during World War II or in civilian life, and had used it in employment received long-term earnings premiums.

These inconclusive results from previous studies led the National Center for Research in Vocational Education to undertake, under sponsorship of the Office of Vocational and Adult Education, a study of Younger Adult Workers (YAW), the results of which are presented in this volume. This study is based on a national cross-sectional survey of 1,539 persons from age twenty to thirty-four that was specifically designed to consider the long-range impact of vocational education on people who were in the labor force at the time of the survey. The primary purpose of this study is to determine if there are systematic long-term relationships between exposure to vocational education and various indices of educational and employment outcomes (e.g., unemployment rate, earnings, and length of employment). Of particular interest are the possible effects the completion of a

high school vocational program may have on educational and occupational patterns five to fifteen years after high school. The study also considers whether exposure to vocational education has differential effects on the employment outcomes for minorities, females, and the disadvantaged. Because of the restrictions on the sample, all results and conclusions apply only to people who were in the labor force.

The Younger Adult Workers Study commissioned a new survey because the study team decided, in the early stages of the investigation, that none of the existing data bases contained all the information needed to assess the longer-term effects of vocational education. Darcy, Orth, and Whitmore (1981), in a review of statistical resources for studies in vocational education, identified twenty-six data bases with potential relevance for vocational education. Several of these contain information about the education, training, and work histories of persons and, thus, lend themselves to evaluative research on the labor market outcomes of vocational education programs. Of those data bases that were available for this study, only the 1966-78 National Longitudinal Surveys of Labor Market Experiences for Young Men and Young Women (NLS-LME Boys and Girls) provided sufficient labor market history for younger adult workers up to fifteen years out of high school. However, even those surveys did not have information on the specific vocational education program areas studied by the young workers while they were in high school. The National Longitudinal Surveys of Labor Market Experience "New Youth" Cohort (Borus, Crowley, and Rumberger 1980) surveyed youth fourteen to twenty-two and is useful for assessing the short-term effects of vocational training. However, at the time of this study the cohort was still too young to be useful in determining the long-term effects of vocational education. The National Longitudinal Study of the High School Class of 1972 (Taylor, Stafford, and Place 1981) contains information on educational program areas and detailed labor market experience. However, the time (seven years) between high school graduation and the most recent (fourth) follow-up is too short to assess the long-term effects that are the focus of this study.

Despite their shortcomings for the purpose of this study, the NLS-LME Boys and Girls and the Class of '72 permit revealing parallel analyses for at least some of the variables of interest here. Comparisons among these three data sets are made whenever possible in the discussion of the analysis of the YAW survey data.

Organization of the Report

The chapter immediately following this introduction describes the sample and the data collection and analysis procedures. The third chapter presents a conceptual framework that

guided the analyses in this report. The long-term effects of vocational education on students' earnings, employment, education, and aspirations are subsequently considered in separate chapters. The report concludes with a discussion of the policy implications of the research and plans for further analysis of the data.

CHAPTER II

DATA COLLECTION AND APPROACHES TO ANALYSIS

This chapter describes the collection of data for the YAW survey and the general characteristics of the resulting sample. The matters considered include data collection procedures; sample specification; statistical analysis and weighting; comparability with other data bases; and limitations and constraints of the sample.

Data Collection Procedures

This survey of younger adult workers was conducted by telephone interviews between January and March of 1981. The population of interest was younger adult workers, between the ages of twenty and thirty-four, who were in the civilian labor force, working or seeking employment. Screening was conducted to ensure an oversampling of respondents who reported completing a vocational program when in high school. The Gallup Organization was chosen to select the final sampling and to field test and administer the questionnaire.

The actual sample telephone numbers used in this survey were produced for the Gallup Organization by Survey Sampling, Inc., using its computer files specifying all working banks in all telephone exchanges in the contiguous forty-eight states (Alaska and Hawaii were omitted). A sampling frame of fifty-seven million households was constructed using currently operative area code-exchange combinations to eliminate nonresidential exchanges. The sampling methods were designed to yield a systematic random sample of telephone numbers, both listed and unlisted.

The actual sample was stratified to all counties so that the number of observations drawn within each county was proportional to that county's share of the total pool of households with telephones. Within counties, a working bank (or banks) was selected systematically, after a random start, by first summing the number of listed residential numbers in all working banks, then dividing the sum by the desired quantity of numbers to establish an interval, and then cumulating the listings within banks until the interval number was reached. Because each bank's chance of being selected is proportional to its share of listed homes, larger banks have a greater probability of selection than banks containing fewer listings. Within banks so selected, two random digits in the range 00-09 were generated and added to the bank, exchange, and area code to form a complete telephone number. As designed, the sample would be self-weighting except for a deliberate oversampling of vocational education students that is described below.

Once the telephone number was selected, the household was screened to determine if it had any respondents who were between twenty and thirty-four years of age who were working or looking for work. If more than one individual who was a member of the target population resided in the household, the Kish Selection Tables (Kish, 1965) were used to designate the individual to be interviewed.

Once a household member was selected, an initial call and three follow-up calls were made before abandoning the household. The calls were made on different days and different hours of the day. All participation in the survey was voluntary, and the respondents were assured that the information provided would be kept confidential.

A sixty-one item fixed-format questionnaire was created to measure the selected variables for the study. The questionnaire was designed to obtain background information about the respondent (ten questions); employment history (seven questions); experiences on first full-time and current jobs (twenty-seven questions); secondary and postsecondary schooling (twelve questions); and aspirations (five questions). A copy of the questionnaire is contained in Appendix 1.

The instrument was field-tested and revised. Nine pretest interviews were completed to check both the survey instrument items and the selection rules. The questionnaire took approximately fifteen to twenty minutes to be administered by telephone. Up to ten additional minutes were spent initially introducing the survey and making sure the respondent was a member of the defined population for the study.

When the data were collected, the Gallup Organization coded the responses of all survey participants, along with appropriate technical specifications, on computer tape. Both the tape and the original questionnaires were delivered to the National Center.

Characteristics of the Sample

The sample consisted of 1,539 young adults between the ages of twenty and thirty-four who were identified--from preliminary screening questions--as being in the civilian labor force (i.e., working or looking for work and not in the armed forces, prison or other residential institution). When asked about their high school program, 53 percent of the respondents classified themselves as vocational, 28 percent as college prep, and 19 percent as general education participants (table 2.1). However, this distribution of former students by curriculum is not representative of the population. Vocational students were oversampled so that the sample would contain approximately 50 percent vocational curriculum completers. The random sampling procedures described above were used, and when the desired number of nonvocational

graduates had been interviewed, only 20 percent of the desired number of former vocational students had been interviewed. To identify the additional vocational completers, an oversampling technique was introduced. The random sampling procedures described above were continued, but interviews were conducted only with individuals who reported completion of a high school vocational program. This method resulted in a sample that included approximately three times the proportion of vocational completers as are actually in the national population.

The analyses described below and in subsequent chapters are based on 1,268 rather than 1,539 cases. Three considerations account for this attrition of the sample.

First, in addition to the preliminary screening questions, the questionnaire specifically asked for the respondent's current labor force status. Despite the screening questions, interviews were conducted with some people who, when asked directly, said that they were neither employed nor looking for work. That is, they described their status as "going to school," "disabled," "housework" or "other." These respondents were dropped from subsequent analysis because they should have been excluded by the screening questions. This consideration reduced the sample by 158 cases. The large discrepancy between answers to screening and survey questions probably occurred because the screening questions were sometimes answered by a household member other than the eventual interviewee.

Second, because the selection process oversamples vocational curriculum completers, high school dropouts may be relatively overrepresented in the general education and college preparatory groups and underrepresented in the vocational group. The data in table 2.2 suggest that such a problem could be present, since 91 percent of vocational students but only 82 percent of general students report having high school degrees or equivalency certificates.[1] Hence, the analyses below were restricted to those respondents who reported having either a high school diploma or an equivalency certificate. After eliminating respondents who

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[1]Evidence on the relationship between high school curriculum and high school dropout rates is inconclusive. Some researchers found no significant difference by curriculum (Bergstrand, Esser, and Nelson 1979). Others found high dropout rates for vocational students (Nolfi et al. 1977). Yet another group reported differences within the same data set, depending on whether longitudinal or cross-sectional approaches were used: those currently out of school who had been in vocational curricula had a higher proportion of high school graduates than did those who had been in a general curriculum; but among people in school in any particular year, vocational students were more likely than general students to drop out during the succeeding year (Grasso and Shea 1979b).

were outside the labor force, this second consideration reduced the sample by an additional sixty-eight respondents.

Third, another forty-five respondents were dropped because of implausible or inappropriate answers to questions about educational background, work history, or earnings. One respondent, for example, was an immigrant who had just arrived in the United States, had apparently been educated entirely outside this country, and had no work experience here prior to the survey. Several other respondents reported both very high hourly earnings and high hours worked per week. It was clear from the interviewer's notes on the original questionnaires and from descriptions of the work performed that although the earnings figures applied to hours actually worked, the hours-worked answers included time for preparation and search for work. These respondents were excluded because their answers could not be meaningfully compared with those of other respondents.

Table 2.3 shows that these exclusions do not substantially affect the distribution of the sample by race, sex, curriculum or vocational program area. Racial minorities, women and general curriculum students are slightly more numerous before the exclusions than after them, but the differences are small and should not influence results of the analysis.[2]

The principal objective of this project was to identify differences in outcomes attributable to high school curriculum. Because high school curriculum was identified by self-report, two questions were used to more carefully identify vocational

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[2]This modified sample of 1,268 respondents included 676 from a vocational curriculum, 218 from a general curriculum, 366 from a college prep curriculum, and 8 respondents who did not identify a curriculum. Of the vocational students, 663 responded to the question that asked them to indicate a program area of specialty within vocational education. Twelve of the 663, however, did not identify themselves as falling within one of the six specific program areas. Thus, for analyses that use a curriculum classification but do not require program area, the analysis begins with 676 vocational students. If program area information is used, 663 vocational respondents can be included in the analysis. If only the six specific program areas are used, only 651 vocational respondents can be included. In each case, these figures represent the maximum number of vocational students. The number actually shown in any bivariate cross-tabulation may be less than that number because of missing data on the other variable in the cross-tabulation. For example, table 2.7 shows only 668 vocational students because 8 vocational students failed to identify either their race or their sex.

participation.[3] First, vocational respondents were asked if they had received a certificate of completion from their vocational program. Second, they were asked to indicate the amount of time they had spent in occupational courses as compared to other courses in high school. The results of these two questions are presented in tables 2.4 and 2.5.

Only slightly more than half of the vocational students reported receiving a certificate. Students in home economics were more likely to receive a certificate than were students in any other program area. However, the number of actual responses in that cell is small, and the sampling error of the proportion is correspondingly large. Business and office program students, on the other hand, seem much less likely than in any other program area to receive a certificate. This result may reflect a substantial number of students who were not classified as vocational students by their schools but who took enough business and office courses to consider themselves to be vocational students.

In terms of time spent on job-related courses, about one-quarter of the self-classified vocational students may be better thought of as general or college prep students, since they spent relatively less time in job-related courses. The effect of this measure of intensity of involvement in vocational courses is examined in subsequent chapters that focus on labor market and post-secondary outcomes.

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[3]The hazards of using self-report of curriculum are mentioned in several studies (e.g., Grasso and Shea 1979b; Meyer 1981a). The most detailed study to date indicates the potential range of error in self-report (Campbell, Orth, and Seitz 1981). Using high school transcripts for respondents to the NLS-LME New Youth Cohort, they specified vocational courses by reference to Handbook VI (Putnam and Chismore 1970) and identified degrees of individual participation in vocational education in terms of that course work. Of the people who classified their curriculum as vocational, 7 percent had taken no vocational courses at all, and another 21 percent had only minimal involvement in vocational courses. On the other hand, 42 percent of self-classified general curriculum students and 22 percent of college preparatory students showed a substantial enrollment in vocational courses. Thus, self-report may be very different from what an objective evaluation of course enrollment might indicate.

One should also note, however, that self-report may in one sense be a better indicator of curriculum involvement than is an "objective" appraisal of courses. Self-report is probably an accurate reflection of the student's own perception of the purpose for taking certain courses. That intention may have more relevance for a student's subsequent career and educational decisions than does a listing of course enrollments.

Respondents who identified their high school program as vocational were asked to identify the vocational program area in which they were enrolled. Since the YAW sample left school between 1962 and 1978, there are no single year enrollment figures to which they can be compared. In table 2.6, the YAW sample percentage enrollments by program area were compared to the national average enrollments between 1971 and 1977 (National Center for Research in Vocational Education 1979). In both the national and the YAW sample, business and office and trade and industry showed the largest enrollments. However, the YAW sample included 52 percent business and office completers, while the National Center study reported only 32 percent.[4] This overrepresentation in the business and office area resulted in an underrepresentation in other program areas, especially in agriculture and health. The effects of errors in estimating the distribution of enrollment by program area on conclusions drawn from the analysis are discussed below in conjunction with the specific conclusions affected.

Relationships Between Curriculum or Program and Intervening Variables

This report focuses on the labor market and educational effects of high school vocational education. However, high school curriculum is only one of many factors that influence earnings, occupational attainment, job satisfaction, unemployment, college attendance, and educational aspirations. Some of these factors affect outcomes in ways that are unrelated to high school curriculum. Others affect curriculum choice or are themselves affected either by curriculum or by a third variable that also influences curriculum choice. Identifying the effects of curriculum requires an understanding of the relationships between curriculum and these other complementary or intervening variables that affect outcomes. This portion of the chapter discusses these relationships as they are manifested in the YAW sample.

Table 2.7 presents the distribution of the sample by race and sex. Approximately 85 percent of the respondents were white. In 1980 about 87 percent of the civilian labor force in the age range twenty to thirty-four was white (U.S. Bureau of the Census

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[4]Grasso has suggested in comments on an early draft of this report that at least part of this difference may be attributable to the inclusion of "general business" graduates who might more properly be categorized as general curriculum students. He also pointed out that even the national estimates shown in table 2.6 may contain fairly large errors in classification of students by program area.

1981). The minority respondents in the YAW survey totaled about 15 percent of the overall sample. Sixty-eight percent of them were Black, 21 percent Hispanic, 6 percent Oriental, and 5 percent other racial or ethnic groups.

College prep and general curricula have substantially larger proportions of white males and smaller proportions of white females than the sample as a whole. A relatively smaller percentage of minority males and females were in college prep curricula than were in the sample. The non-college-prep minority males were more likely to be in the vocational group than in the general group, whereas the reverse held for non-college-prep minority females.

Table 2.8 presents the distribution of the vocational subsample by program area, race, and sex. Members of racial minority groups were more likely to classify themselves as vocational, but compared to recent enrollment data they appear to be underrepresented in this sample. Almost 17 percent of the respondents in the vocational group were nonwhite, compared to 15 percent of the full sample. Vocational education enrollment figures for 1977 indicated approximately 23 percent of vocational education students were nonwhite (The National Center for Research in Vocational Education 1979). Respondents in the YAW sample attended high school before 1977. Adequate historical data are not available, but it is likely that minority enrollments in vocational education have increased as the seventies progressed and greater emphasis on equity was stressed.

The male-dominated program areas were agriculture and trade and industry. The female dominated areas were health, home economics, and business and office. The distributive education area included about 40 percent males and 60 percent females, all of whom were white. Of the 112 minority vocational completers, 39 percent were in trade and industry, and 41 percent were in the business and office areas.

The socioeconomic status (SES) of the respondent's family is represented by a composite variable that was created using three indicators: reading material in the home during high school, years of schooling of the family's chief wage earner, and the Duncan prestige score of the chief wage earner's job while the respondent was in high school. (Appendix 2 provides a description of the method used to construct this variable.)

Table 2.9 presents the mean SES levels by curriculum groups. This variable is not as discriminating as one might wish, since very few of the respondents fell in the very low or very high SES categories. Although a great many more college prep students were from high SES families, the differences in percentages from lower SES families between college prep and vocational students were not large. The percentages of below average respondents in each curriculum group were 13 percent of vocational, 20 percent

of general, and 8 percent of college prep. The percentages of above average respondents were about 9 percent for both vocational and general, and 27 percent for college prep.

The SES levels by vocational program area are presented in table 2.10. The below average SES respondents were most frequently represented in the areas of home economics, distributive education, and agriculture.

The lack of discriminatory power of the SES index suggests that the occupation of the chief wage earner may, by itself, be more revealing than the composite variable. Table 2.11 presents the distribution of the respondents by chief wage earner's occupation and curriculum. The largest occupational group represented was crafts (23 percent of all respondents). Professional, managerial, and operative categories each accounted for about 14 percent of respondents. Sales, clerical, laborer, farm, and service groups each accounted for about 6 percent.

College prep students were more likely than the entire sample to have chief wage earners who were in professional, managerial, or sales occupations. Vocational students were relatively less likely to come from families associated with professional or managerial jobs and were more likely to come from families associated with operative, laborer, farm, and service jobs. Compared to vocational students, general students were less likely to come from families with chief wage earners in white-collar occupations. The exception is that general students were relatively more likely than were vocational students to be children of a chief wage earner in a managerial occupation (but not so much more likely as to offset the predominance of the other occupations). Finally, chief wage earners for general students were more likely than for vocational or college prep students to work as craftsmen, somewhat more likely to work as operatives or laborers, and less likely to be in service jobs.

The indicator of locale for participants was based on their residence at the time of the survey. Residence or nonresidence in a Standard Metropolitan Statistical Area designated the locale as metropolitan or nonmetropolitan. The majority of the respondents were located in a metropolitan area (table 2.12). According to the 1980 census, 73 percent of the nation's population resided in metropolitan areas and 27 percent in nonmetropolitan. In this respect the Younger Adult Worker sample is representative of the nation.

About 10 percent more of the vocational and general education respondents than of the college prep respondents were from rural areas. In most of the vocational program areas, however, the majority of the respondents resided in metropolitan areas (table 2.13). As expected, a relatively larger proportion of agriculture students resided in nonmetropolitan areas.

The vocational, college prep and general education groups differed markedly by age distribution (table 2.14). A greater proportion of the younger respondents had participated in vocational education programs. Only 16 percent of those in vocational education were in the thirty-two to thirty-four year age range, whereas about 25 percent were between the ages of nineteen to twenty-two. On the other hand, fewer of the college prep respondents were in the younger age ranges (eleven percent of the nineteen to twenty-two year olds and 24 percent of the thirty-two to thirty-four year olds). Most likely, this pattern reflects the sample selection screening questions requiring respondents to be in the labor force. That is, younger college prep graduates would be more likely to be attending college full time and out of the labor force. However, it may also reflect the increased access to vocational education since the 1963 legislation authorized spending federal monies for facilities and equipment.

In the YAW sample nearly all of the vocational program areas increased in enrollment between the time that the thirty-two to thirty-four and the nineteen to twenty-two age groups were in school (table 2.15). The only exception to this increase was found with students enrolled in business and office. For these students, the enrollment has remained nearly the same.

The marital status of the young adult workers was also investigated (table 2.16). In general, a smaller percentage of male vocational education representatives were married as compared to their general and college prep counterparts. Female vocational and general education representatives were more likely to have married than their college prep peers.

When asked about physical limitations, only 35 of a total of 1,240 reported some type of physical limitation (table 2.17). This low number (less than 3 percent) is probably reflective of the fact that many handicapped people are not in the labor force. Thus, this sample is not representative of the population of persons with physical limitations. The majority of the respondents who did report physical limitations were orthopedically impaired. As for the vocational program areas, the trade and industry and business and office programs enrolled 80 percent of the vocational respondents with physical limitations (table 2.18). Any generalizations about handicapped participants must be made cautiously because of the very small sample size.

Since placement in a training-related job is one of the criteria of success in a vocational program, an important aspect of any vocational program is the teacher assistance in obtaining the first job for a student. Overall, only 19 percent of the students in all vocational program areas reported receiving assistance in finding their first job (table 2.19). However, this figure exceeded the 4 percent of college prep and 6 percent of general respondents who reported receiving assistance (table 2.20). The health participants reported the highest rate, and

agricultural students reported the lowest rate of receiving assistance; however, some portion of agriculture students may have had their first job on their own or their family's farms and would not have required teacher placement assistance.

In general, few students in the college prep and general education curriculum areas received occupational information--fewer than 25 percent (table 2.21). However, the vocational program areas did a much better job in providing students with such information (table 2.22). On the whole, about one-half of all vocational students were given some type of occupational information. Home economics students most often indicated receiving information, whereas the respondents in health occupations least often reported having received information.

The profile of vocational students that emerges from the YAW survey agrees with the patterns found in other studies and can be summarized here as follows. Vocational students are more likely than general or college prep students to be white females or black males. They are less likely than college prep students to come from a family with a high socioeconomic status and also less likely than general curriculum students to come from a low socioeconomic status family. Males are less likely to be married. Like their general curriculum counterparts, the vocational students are more likely than college prep students to live in a rural area. And they are more likely than either college prep or general students to have received occupational information in high school or assistance from teachers in finding jobs. That is, there are substantial differences across curriculum groups with respect to at least several factors that affect labor market experiences and postsecondary education patterns. Thus, comparison of labor market experiences or educational attainment by curriculum group must control for the impact of these other factors if accurate conclusions are to be drawn about the effects of curriculum. The tabular and regression analyses presented in subsequent chapters were chosen because they permit that kind of control.

Weighting and Methods of Analysis

This reduced sample of 1,268 former students is examined using two principal techniques. The first approach is to look at unweighted cross-tabulations of the data. Because vocational students were oversampled, unweighted cross-tabulations that combine cases across curriculum would not give accurate estimates of population frequencies. Weights could be introduced to make such cross-tabulations representative of high school graduates in the civilian labor force. Such weights were not used, however, because most of the tables show a stratification of cases either by curriculum or by vocational program area. The relevant comparisons can be made among curriculum groups without any need for weighting.

Cross-tabulations reveal broad, surface relationships between curricula or programs and either individual characteristics or outcome measures. However, controlling the bivariate relationships for the influence of a third (or nth) variable is difficult when only cross-tabulations are used. Multiple regression analysis is employed to analyze those more complex interrelationships and to estimate the partial relationship between two variables while controlling for the influence of other variables.

As with the cross-tabulations, the regression analyses are unweighted. If regression models are properly specified, weighting to allow for a stratified sample is unnecessary. Other forms of adjustment in specification are necessary for some of the analyses presented in succeeding chapters. The appropriate adjustments are discussed in conjunction with the related results of analysis.

Comparisons with Longitudinal Data Sets

The shortcomings of previously existing data sets for the investigation of long-term effects of vocational education were noted briefly in the introduction to this report. Two data sets have enough information, however, to warrant limited comparisons with the YAW survey results. They are the National Longitudinal Survey of Labor Market Experience (NLS-LME Boys and Girls) and the National Longitudinal Study of the High School Class of 1972 (Class of '72). Tables 2.23 and 2.24 present sample characteristics across curricula and vocational programs for these data bases.

Both NLS-LME and Class of '72 are longitudinal surveys, whereas the YAW survey is cross-sectional. The NLS-LME and Class of '72 surveys have base year data collected either by interview or self-administered questionnaire and several follow-ups at regular intervals. The Class of '72 has four follow-ups in 1973, 1974, 1976, and 1979. The NLS-LME and Class of '72 surveys collected data on the labor force and educational status of the sampled respondents on two or more occasions. In the YAW survey longitudinal information was collected at a single point in time, when the respondents were asked to describe retrospectively the experiences that occurred at different points in their careers. The retrospective approach increases the probability of response errors occurring in certain items.

The NLS-LME and Class of '72 surveys had more respondents than the YAW survey. The NLS-LME Boys survey began in 1966 with 5,225 cases. By 1976 it had about 3,700. The NLS-LME Girls went from 5,159 cases to about 3,900 between 1968 and 1978. The Class of '72 retained about 13,000 of the original 23,000 cases through four follow-ups over seven years. Not all of these cases, however, meet the criteria set for the YAW sample. Most of the

NLS-LME men (about 3,50, in 1976) were in the labor force, but a smaller fraction (2,500 or about 5/8) of the women were participants by 1978. For the Class of '72, 76 percent of the men and 65 percent of the women were in the labor force in the 1979 follow-up.

The limited size of the YAW sample means that, despite the oversampling of vocational students, there will be too few cases in some categories for some variables to draw any firm conclusions about those categories.

Most of the interviews for NLS-LME, including the base year and six of the follow-ups, were conducted in person rather than by phone. The Class of '72 relied mainly on group administration of questionnaires for its base year and on a combination of mail questionnaires and personal interviews for follow-up.

The use of occasional follow-ups by phone and the longitudinal nature of the NLS-LME and Class of '72 studies also created some problems in the use of these data sets. For instance, determining a worker's first full-time job after high school graduation is very difficult in both NLS-LME and Class of '72 and is impossible for some cases. Also, the degree of detail in the work history varies from year to year depending on whether the follow-ups that year were personal or telephone interviews.

One significant limitation of the NLS-LME data set is the paucity of information about the boys' high school curricula. As noted in the introduction, program areas were not identified for vocational students. Even determining whether a student took a vocational curriculum in high school is difficult to determine. In the base-year interview (1966), boys were asked to identify their high school curriculum. At that time, however, 1,356 respondents were only fourteen or fifteen years of age and another 693 were sixteen. Their reports of curriculum are likely to be unreliable indicators of their later high school experience. Later follow-up interviews provided revised curriculum reports for only some of these respondents.

Hence, although comparisons among these data sets are possible, they cannot be exact or complete. The emphasis in this report is on the analysis of the YAW data set. The NLS-LME and Class of '72 data are compared to the YAW data when a comparison is possible and interesting. Because of the many differences among the data sets, it was not expected that they would yield identical results. Similar results, however, do increase the confidence that can be placed in the overall conclusions derived from the analysis.

CHAPTER II

FRAMEWORK FOR ANALYSIS

Labor market experiences, educational attainment, and occupational and educational aspirations are interrelated in complex ways that are not well understood. No comprehensive theory of the relationship has gained widespread acceptance. Even for isolated aspects of the relationship there are very few widely accepted theories. Of particular concern for this project is the fact that the manner in which vocational education is expected to affect employment, continuing education, and aspirations has never been systematically and thoroughly set out. However, any empirical analysis can be useful and interpretable only if it is guided by a theoretical framework. This chapter makes no pretense to rigor or completeness; it seeks only to make explicit the rather general conceptual framework that guided the analyses in this report.

Proximate Effects and Linkages to Remote Effects

Elementary and secondary education are presumed to interact with personal and contextual attributes to affect the attitudes and behaviors of students directly. The labor market effects and those on postsecondary educational experience that are studied in this report are not proximate effects of education but are, rather, more or less remote effects. One must hypothesize linkages between the attitudes or behaviors of former students and their labor market and postsecondary educational experiences.

Proximate Effects

Table 3.1 lists the attitudes and aspects of behavior that vocational educators have usually said are affected by vocational education. Vocational education, they argue, should foster reliability, self-discipline, safety consciousness, and other desirable work habits. It should teach skills that are immediately useful to employers, though the desirable degree of specialization of such skills has been heatedly debated. Since vocational education prepares students for immediate employment, educators advocate that most programs should teach at least the rudimentary job-seeking skills: preparing resumes, writing letters, participating in interviews, and finding job openings. Vocational education may influence a person's self-image and condition both

educational and occupational aspirations by helping to identify and develop the individual's practical skills. If vocational education permits students who are bored by a purely academic curriculum or have low aptitude for such work to excel in nonacademic areas, it may not only reduce dropout rates but may also facilitate the learning of basic skills by improving the student's self-image and attitude toward academic aspects of the curriculum. It may help students to find nonacademic situations in which they can develop leadership, communication, and other interpersonal skills. Although secondary vocational education often provides an opportunity for direct entry to the labor market, it may convince some students of the potential value of postsecondary education or training. In any or all of these ways, secondary vocational education can affect attitudes and behavior.

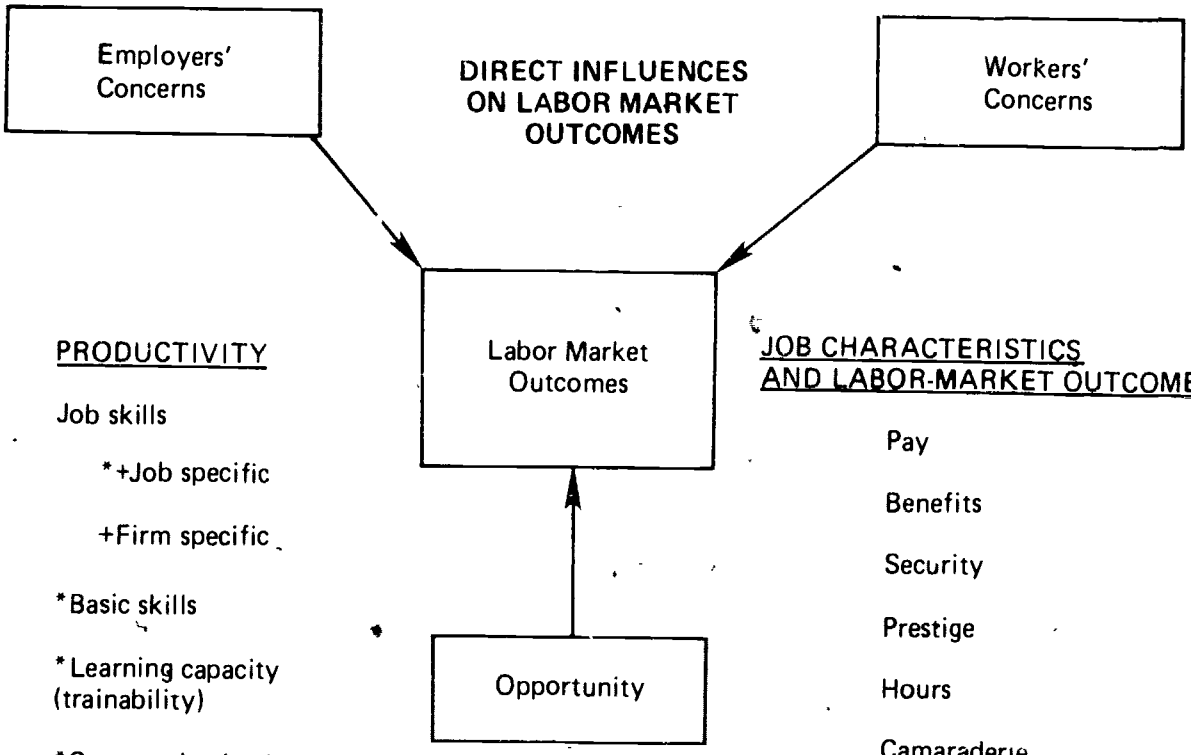
Linkages

The linkage between the attitudes or behavior of former students and their labor market experiences is found in the concerns of prospective employees, the concerns of employers, and the opportunities for employers and prospective employees to come into contact with each other. Economic theories of the labor market would explain these concerns through the marginal productivity theory of labor demand, a utility theory of labor supply, search theories of labor market dynamics, and institutional theories of labor market structure, singly or in combination. The framework used in this paper is eclectic, because it is felt that each of those theories has concepts that are useful from various perspectives.

Labor demand. From that eclectic viewpoint, the factors that affect labor market outcomes are shown in figure 3.1. Marginal productivity theory suggests that firms will decide how much of each kind of labor to employ by comparing their net real (marginal) productivities. Net productivity is affected in numerous ways, most of which can be influenced by vocational education if the claims of vocational educators are correct.

Vocational education should aid in acquiring job-specific (but not firm-specific) skills, basic, communication, and leadership skills and work habits, as well as in increasing learning capacity and in reducing training costs. If vocational education imparts these skills better than a general curriculum, or if employers believe that vocational education does a better job of imparting these skills, employment prospects and initial pay levels should be better for vocationally educated youth than for youth who are otherwise alike but who followed a general curriculum. Employers will neither continue to expect vocational education to produce these results nor continue to pay wage premiums, however, unless that signaling function frequently operates correctly and validates employer anticipations.

FIGURE 3.1



PRODUCTIVITY

Job skills

*+Job specific

+Firm specific

*Basic skills

*Learning capacity (trainability)

*Communication/ cooperation skills

*+Leadership skills

Creativity/initiative

Work habits

*Self-discipline

*Punctuality

*Reliability

*Effort

*Safety consciousness

Unit Labor Cost

Pay/Benefits

Training Cost

*Basic

*Job specific

*Firm specific

SEARCH-APPLICATION PROCESS

*Assessment of own abilities

*Finding openings

*Application

*Passing initial screens

*Interview

JOB CHARACTERISTICS AND LABOR-MARKET OUTCOMES

Pay

Benefits

Security

Prestige

Hours

Camaraderie

Working conditions

Location

Physical demands

Health impact

Challenge

*Interest

*Relatedness to training

Opportunity for advancement

Congruence with other goals

*Potentially influenced by vocational education

+Capable of improvement with time spent on-the-job

(Tenure also gives firms knowledge of worker's capability in other areas of employers' concerns)

One of the main problems employers face is their uncertainty about any job applicant's proficiency. Educational courses can perform a credentialing or signaling function that enables employers to pay different earnings for entry-level jobs. The validation occurs as the employee acquires tenure with the firm and the employer evaluates the worker's productivity and potential. Hence, earnings can rise with tenure either because productivity grows as new skills (firm specific and/or job specific) are acquired or because the employer's perception of the employee's current or potential productivity improves. The signaling function of vocational education serves to reduce the employer's risk and cost in obtaining this information and to allow the firm to more readily hire or to pay higher wages to new employees who are better risks.

Labor supply. Vocational education may also affect the prospective employee's decision about selecting a job, though the scope for such effects seems to be narrower for employee's decisions than for employer's decisions. Workers are concerned about job characteristics and outcomes such as pay, prestige, security, hours, working conditions, advancement opportunities, the appeal of the work, and others listed in figure 3.1. In two ways vocational education can guide the student toward jobs that have particular sets of characteristics.

First, vocational education tends to confer skills that are appropriate to particular occupations. Since job characteristics vary systematically and unevenly across occupations, the distribution of the characteristics of jobs held by vocational and general students should also vary systematically. Second, participation in vocational education is likely to reflect the interests of a student in particular kinds of work, either because the student takes courses that develop preexisting interests or because the courses create new interests.

If vocational education performs the credentialing function cited above, the supply of vocationally educated labor may increase relative to generally educated labor in ways that reduce any favorable earnings differentials, lengthen search duration, and raise unemployment rates for individual vocational students. This point is argued persuasively by Gustman and Steinmeier (1980). They also noted that the extent of supply-side effects depends on the availability of facilities and instructors and the ease of entry to vocational programs. Neither the data available to Gustman and Steinmeier (NLS-LME and Class of '72) nor the YAW data permitted accurate estimates of these supply-side adjustments. This is clearly a subject that deserves closer examination.

Labor market dynamics. Application of the economic theory of job searching suggests that vocational education may affect earnings and employment by influencing the efficiency of a person's job-searching and application process. It can help

students to better assess their own abilities and interests, thereby narrowing the focus of the job search. Students may also learn where and how to find job openings, or they may even be directed by teachers or counselors toward specific job vacancies. Additionally, students may be instructed in completing job applications, composing resumes, and writing cover letters designed to pass initial employer screenings and to gain interviews. A vocational program may also include practice interviews or advice on good interviewing techniques. These factors can contribute to a more efficient job search, thereby reducing the expected duration of a spell of unemployment and helping the student to find better-paying jobs.

Most of the preceding discussion has been phrased in terms appropriate to finding a new job (or, for young adults, a first full-time regular job). In at least two respects, however, it applies as well to the former student's entire working life. First, as mentioned briefly above, normal career progression involves acquiring new skills, improving old ones, and demonstrating competence, all of which improve the individual's earnings capacity within a firm. This permits the firm to increase pay with tenure. Second, if the improved capacity is not reflected in advancement within a firm, employees are likely to find another firm that will compensate them more appropriately. The improved earnings capacity need not always be reflected in higher earnings, for the employee may use it instead to "buy" improvements in hours, prestige, working conditions, and/or job duties. However, it will be reflected in a more satisfactory overall employment situation.

Institutional constraints. The framework that has been outlined thus far is based on the traditional assumption that individual employees are paid according to their own productivity as determined in competitive markets. Institutional constraints and the structure of labor markets can limit the applicability of that assumption.

Yet, the limits are less restrictive than one might suppose. Existence of internal labor markets and of limited ports of entry or exit, long-term contracts, firm-specific idiosyncrasies, the bureaucratization of the hiring and wage-setting processes, and the role of production teams in modern enterprises combine to limit the range of competition for wages.* Minimum wage laws may inhibit payment of wages that correspond to productivity. In both of these cases, however, employers will adjust other aspects of the employment situation. If vocationally educated youth are more productive than nonvocationally educated youth, differences in these other aspects of labor market outcomes (not necessarily earnings) will emerge. If vocational graduates are known to be

*See for example, Doeringer and Piore (1971), Williamson, Wachter and Harris (1975), Thurow (1975), and Okun (1981).

more productive in certain classes of jobs, for example, they will be hired more quickly than will general curriculum students, even if either type of student would receive the same wage if hired. More productive employees could alternatively be hired (or more rapidly promoted) into higher-level (and higher-paying) classifications, even if all employees in the same classification received the same wage.

A minimum wage will affect labor market outcomes only if the productivity of one group of prospective employees exceeds the minimum wage while the other group falls below it. The minimum wage affects the number of jobs available through the relationship between employment and marginal productivity. Employers will attempt to prescribe hiring standards that distinguish between workers with positive and those with negative net productivity. Search time and the duration of unemployment will be less for the class of prospective employees whose anticipated net productivity is positive.

Thus, institutional structure should not negate any positive effect of vocational education on productivity, but it may shift the manifestation of that effect from earnings to other outcomes.

Observable Measures of Concepts

Many of the factors discussed here as determining labor market outcomes are not measured in most survey data. Replacing theoretical concepts with their empirical counterparts is a major problem in many analyses. The YAW survey data are typical in this regard. Job skills, work habits, and successful interview techniques are examples of concepts that are not directly measured in the YAW data. Figure 3.2* and table 3.2* represent an attempt to translate those theoretical concepts into the kinds of measurable (in principal, at least) counterparts that are usually available in one or more of the longitudinal labor market surveys. Figure 3.2 outlines the framework through which these measures are linked together and related to labor market outcomes. Table 3.2 lists specific elements within each broad category of influences.

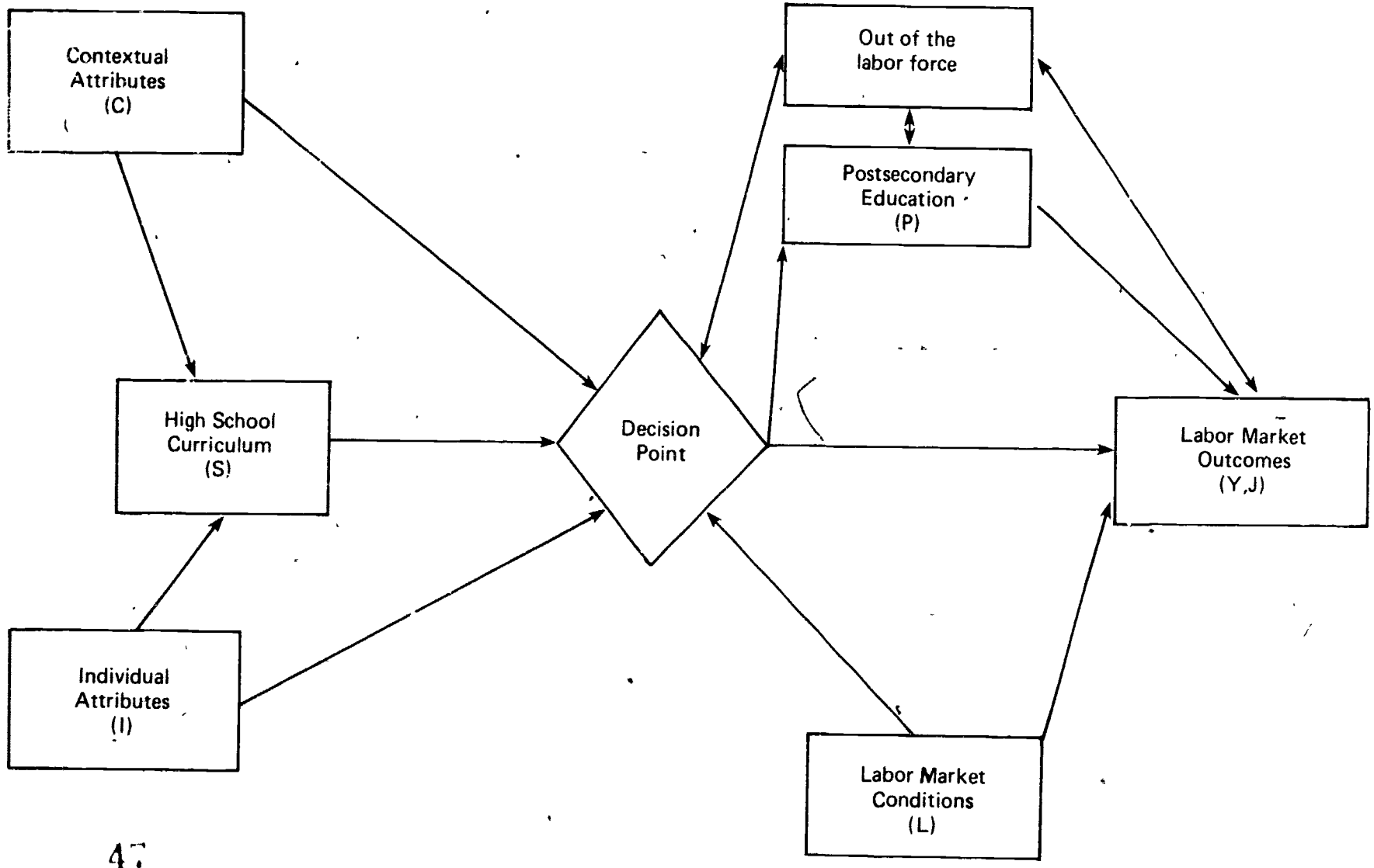
Preemployment Experiences

The diagram is constructed around a central decision point that is hypothesized to be affected by individual attributes, the general context in which decisions are made, the early educational experiences of the individual (assumed here to be filtered primarily through the high school experience), labor

*This figure and table and the discussion of it are based on a similar figure devised by Paul Campbell and John Gardner for a related project at the National Center. See Campbell et al. (1981).

FIGURE 3.2

FACTORS INFLUENCING LABOR MARKET OUTCOMES



market conditions relevant to the time and place of the decision, the individual's family responsibilities, and postsecondary educational experiences. At that point, the person may decide to pursue additional education, to seek work, or to give priority to family responsibilities. No temporal sequence is imposed on the diagram, although some sequences are more common than others. The two-way arrows between Decision Point, Out of the Labor Force, Postsecondary, and Labor Market Outcomes are meant to suggest that, within limits, new decisions can be made later and steps retraced (though not without consequences).

Individual attributes, such as ability, age, race, and sex, and attributes of the context in which individuals operate, such as region and community socioeconomic status (SES), influence educational decisions directly at both the high school and the postsecondary levels. If the high school curriculum exerts an independent influence on labor market outcomes, then the individual and contextual attributes also affect the outcomes indirectly.

The high school experience involves the acquisition and certification of basic skills and of other skills that may influence productivity or job-searching efficiency. Curriculum categories (such as academic, vocational, or general) capture only a portion of this experience. The YAW data set contains information that supplements the curriculum category designation and may capture relevant aspects of the high school experience, such as the use of acquired skills on the job, the availability of placement assistance, a measure of the intensity with which vocational skills were studied, and the retrospective satisfaction with the choice of high school curriculum.

Individuals must repeatedly decide whether to continue their education and whether and how to participate (or to continue participation) in the labor market. (These options are not all mutually exclusive, of course.) The range of postsecondary education and training options that are considered in the YAW data set goes beyond postsecondary education as usually defined, and these options are not all included in the Postsecondary box in the diagram. Postsecondary education and training options include business, trade, or technical programs at either private or public colleges or technical institutes; four-year academic programs; advanced degree programs; government-sponsored training in programs such as CETA or WIN; military training in specialties related to civilian jobs; and training experiences associated with particular jobs, such as apprenticeship or employer-sponsored (formal, not OJT) training. The individual worker must consider how much emphasis to place on educational options, family responsibilities, or labor market participation.

Employment Aspects

Local labor market conditions are the principal contemporaneous forces external to the individual that influnce decisions concerning education, family, and work. They include such items as the best industry mix, labor market demand, region of the country, or urban/rural location.

Once the decision is made to participate in the labor force, the factors already mentioned determine the distribution of time between employment and unemployment. Any individual employee's job situation can be described by a bundle of characteristics that relate to both the job and the employee. The characteristics include the industry, occupation, pay, hours worked per week, weeks worked per year, prestige and degree of unionization of the job, the relatedness of the job to the employee's training, the employee's tenure on the job, and the length and stability of the employee's labor market experience.

For any individual worker at a specific time these characteristics are, in principle, jointly determined. A unionized job in manufacturing, for example, is more likely to be a lower prestige operative job than a higher prestige professional job. As one considers different jobs, the characteristics are to some extent traded off against each other. Hence, one can "explain" much of the difference in pay between two jobs by knowing whether the jobs are unionized, which industry they are in, and the typical number of weeks worked per year. One can "explain" much of the difference in earnings between two individuals in similar jobs if one knows the employees' tenure and the length and stability of their overall work experience. And, in turn, any employee's tenure on a job is closely related to the pay and prestige of the job and to the employee's own length and stability of labor market experience. This interdependence among job characteristics and descriptive statistics of a person's work history has important implications that are discussed below for the estimation of the effects of high school curriculum on any single labor market outcome.

Changes Over Time in Differentials

Any earnings differential between students from different curricula that exists at some point in the life cycle can change over time as high school training becomes progressively less relevant and direct job experience becomes more important in determining current productivity. As Gustman and Steinmeier (1981) pointed out, if vocational education directly replaces early on-the-job training and if (as in most career progressions) there are limits to the proficiency that can be attained, one would expect former vocational students to have an early earnings advantage over former general curriculum students in the same occupation, an advantage that narrows with time and eventually

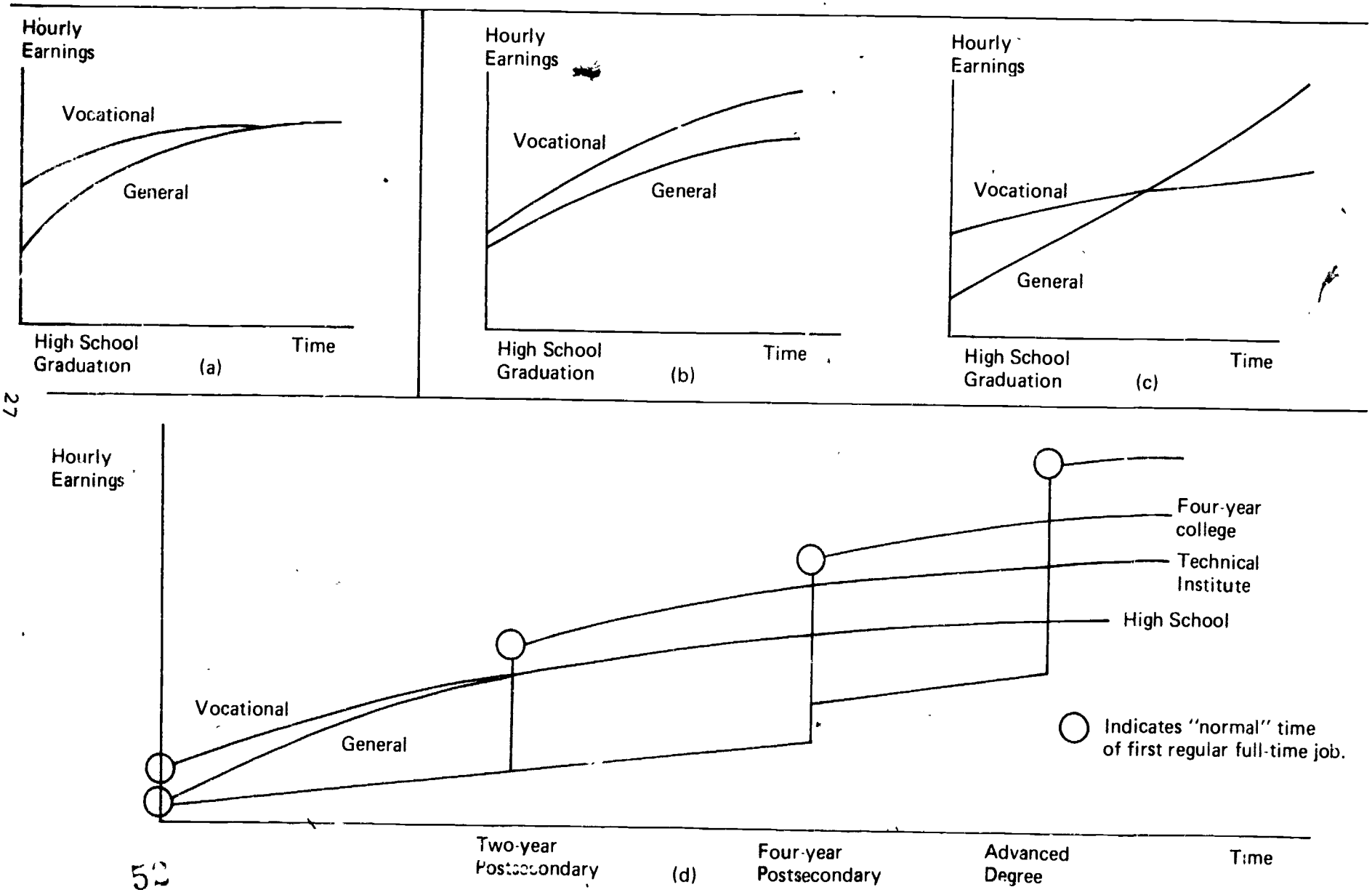
disappears (figure 3.3a). If vocational education facilitates learning on the job, the earnings advantage for former vocational students might start out very narrow and then remain constant or grow (figure 3.3b). If accumulated knowledge about the job is subject to diminishing returns, however, even that advantage will eventually disappear.

Meyer (1981b) pointed out that vocational and general students might systematically find employment in different types of jobs with different earnings profiles. In this scenario vocational students tend to work in jobs that have both high initial earnings and flat earnings profiles, whereas general students tend to find jobs with steeper earnings profiles but lower initial earnings. In this case former vocational graduates would start out with an earnings advantage over general students that eventually disappears and then reverses (figure 3.3c).

No single profile seems a priori to be more reasonable than the others, given the current state of the theory concerning the linkages between vocational education and labor market outcomes. However, the use of the life cycle earnings profiles serves to emphasize that respondents in the YAW surveys are being observed at different points of their life cycle and that such differences must be taken into account in estimating the effects of high school curriculum. This point is particularly important in regard to the first full-time regular job. As figure 3.3d shows, the first full-time job occurs for people with different postsecondary attainments at different points of the life cycle, with different investments in human capital, and with different opportunity costs across curricula at any given point in the life cycle. This observation explains why Grasso and Shea (1979b) and others have restricted their comparisons between vocational and nonvocational students to those students who have equal amounts of education. Restricting the comparison to only people with exactly twelve years of schooling is not necessary. If people with higher levels of education are included, however, some control for educational attainment must be used. One problem researchers face is that postsecondary attainment is affected by curriculum choice, as is reflected in figure 3.2. Therefore, simply stratifying the sample by levels of educational attainment may not provide the best test of whether vocational education has independent effects on labor market outcomes. A better approach may be to include respondents with a range of educational attainments and to attempt to correct for the impact of that additional education. That approach, however, requires that simplifying assumptions must be made about the form of those effects of additional education, and different sets of assumptions may lead to different estimates of the results of vocational education. For example, one may assume that the effects of employer-sponsored training or earnings are independent of curriculum. That assumption leads to a different specification of estimating equations than does an assumption that the effects of employer-sponsored training are different for former

FIGURE 3.3

LIFE CYCLE EARNINGS PROGRESSIONS



vocational students than for former general students. In any event, it is clear that separating the influences of high school curriculum and postsecondary attainment is not an easy task with one best solution. The approach in this report is to compare several specifications of those effects. That approach is best described through a mathematical depiction of the model in figure 3.2.

A Model For Estimation

The model suggests a system of simultaneous* equations that are assumed for simplicity to be linear:

(1) $Y = a_0 + a_1C + a_2I + a_3S + a_4P + a_5L + a_6J + e_a$

(2) $S = b_0 + b_1C + b_2I + e_b$

(3) $P = c_0 + c_1C + c_2I + c_3S\ (+c_4A) + e_c$

(4) $J = d_0 + d_1C + d_2I + d_3S + d_4P + d_5L\ (+d_6Y)\ (+d_7A) + e_d$

(5) $A = f_0 + f_1C + f_2I + f_3S + e_f$

where Y = a labor market outcome such as earnings, job prestige, or hours worked per week;**

S = a measure of high school education;**

P = a measure of postsecondary attainment;**

J = job characteristics (other than "outcomes"), such as unionization or industry;**

A = a measure of educational or occupational aspirations;

C = a representative contextual attribute;**

I = a representative individual attribute;**

L = a measure of local labor market conditions;**

e = a random disturbance term for each equation that captures the impact of all unobserved influences on any dependent variable.

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*Simultaneous only when regarded as a static rather than as a truly dynamic framework. The dynamic nature of the process is abstracted from here because the modeling becomes complex very quickly and the data are not well suited to those complications. For discussion of a step in the direction of a dynamic modeling of a similar process, see Hotchkiss (1981).

**These could be vectors, but they are discussed here as if they were scalors to keep the notation simple.

Equation (1) reflects the sum of all the influences on labor market outcomes shown in figure 3.2. It allows for trade-offs among labor-market outcomes (Y) and job characteristics (J) when, for analysis of a particular outcome, some job characteristics play the role of descriptors. The system allows secondary vocational education (and postsecondary education) to have direct or indirect effects (or both) on labor market outcomes.

The direct effect of vocational education is contained in a_3, the coefficient of S in equation (1). That effect indicates what could happen to the outcome variable if S were changed while all other determinants of Y were held constant ($\Delta Y_1 = a_3 \Delta S$). The presence of S in equation (3) means, of course, that P cannot remain constant when S is changed. The change in P that occurs because S is altered will have an additional impact on Y ($Y_2 = a_4 c_3 S$). This change in P represents an indirect effect of S on Y operating through P. Other indirect effects operate on Y through J (and S has indirect effects on J through P) [$\Delta Y_3 = a_6(d_3 + d_4 c_3)\Delta S$]. The sum of all the direct and indirect effects is the total effect of a change in S on Y.

$$\Delta Y_t = \Delta Y_1 + \Delta Y_2 + \Delta Y_3 = [a_3 + a_4 c_3 + a_6(d_3 + d_4 c_3)]\Delta S$$

The total effect of S could be derived algebraically by omitting equation (2) (in effect treating S as a predetermined variable), substituting (3) and (4) in (1) and solving the system of (now four) equations for the reduced form of Y, expressed as a function of C, I, L, and S.

(1b) $Y = a'_0 + a'_1 C + a'_2 I + a'_3 S + a'_4 L + e'$

where:

$$a_3' = a_3 + a_4 c_3 + a_6(d_3 + d_4 c_3)$$

and the other primed (') coefficients could similarly be expressed in terms of the original coefficients.

Estimation of the system in either its structural or its reduced form is straightforward if c_4, d_6, and d_7 are all zero, the error terms are uncorrelated across equations, and the exact specifications of C, I, and L permit identification of the system. OLS is an appropriate analysis technique in that case. The main problem lies in interpreting the coefficients, in remembering that the term "effects of vocational education" is used by some researchers to refer to direct effects only and by other researchers to refer to total effects, the sum of direct and indirect effects.

If each structural equation could be estimated without bias, separate estimates of a_3, a_4, c_3, a_6, d_3, and d_4 could be combined to calculate estimates of the direct effects

(a_3), the indirect effects ($a_4c_3+a_6(d_3+d_4c_3)$), and the total effects (a_3') of vocational education on each outcome variable. Alternatively, the reduced-form equation (1b) could be estimated directly, but that approach provides only an estimate of a_3', the total effect, not the components of that effect.

Estimates presented in this report are obtained by applying OLS to (1), (3), (4), and (5); to reduced-form equations such as (1b); or to a modified reduced-form equation such as

(1c) $Y = a_0" + a_1"C + a_2"I + a_3"S + a_4"P + a_5"L + e_a$

(1c) differs from (1) in that equation (4) has been substituted for J. It differs from (1b) in that it retains postsecondary education as an explanatory variable, whereas (1b) substitutes equation (3) for the postsecondary variable. Thus, equation (1c) splits the indirect effect of vocational education (which operates through P and J) between $a_3"$ and $a_4"$. In terms of the original coefficients,

$a_3"=a_3+a_6d_3$ and $a_4"=a_4+a_6d_4$.

Equation (1c) is of interest because it would be an appropriate form of the structural equation (1) if $a_6 = 0$.

If d_6 is not zero, OLS estimation of (1) may be subject to simultaneous equations bias. The term J in (1) is correlated with e_a, Y in (4) is correlated with e_d, and OLS estimation of either (1) or (4) is inappropriate. The advantage of estimating the reduced-form, rather than the structural, equations is that estimation is not affected in this case. For the sake of comparison, OLS estimates of (1) and (4) are presented and discussed in the following chapters and are compared to estimates of (1b).

In a recent unpublished note, John Bishop, a colleague at the National Center, pointed out how the problem of self-selection bias relates to this analysis. In this framework, Bishop's point is illustrated by retaining equation (2) in the system rather than omitting it, as above. Although the structure does not impose a simultaneity bias on the system, problems will arise in estimation if e_a and e_b are correlated. That correlation is plausible if the unobserved characteristics that lead an individual's earnings to be abnormally high (or low) are the same unobserved characteristics that influence educational choices. In this situation the bias arises from the process that selects students for various high school curricula.

Both of these last two sources of possible simultaneity problems will be dealt with in subsequent work at the National Center, because they are beyond the scope of the present research.

Limitations and Possible Problems with the Framework

The variables that are determined in the system (1)-(5) are linked by a number of intervening variables. The discussion here has focused on the linkage between outcome variables, represented by Y, and secondary vocational curriculum. The intervening variables reflect the proximate effects of vocational education (on such factors as job skills or attitudes toward school), whereas the outcome variables are somewhat more remote from the high school experience. One would expect to find measurable differences in the effects of various high school curricula on the remote outcomes only if measurable differences are found for the proximate effects.

There is independent evidence in support of most of these claims for the basic effects of vocational education, but the evidence is, on balance, inconclusive*. In terms of basic skills, Ludeman (1976) and Horvath (1973) found some indication that vocational students have better mathematics skills than general curriculum students. However, they also found poorer verbal skills among vocational students, and other studies tend to be inconclusive (see Mertens et al. 1980). When attempts were made to measure directly the acquisition of occupational skills, Farrington (1974) and McQuay (1974) found no significant difference between vocational and other students. Attempts to measure indirectly the acquisition of job skills and work habits through assessment of employer satisfaction with vocational students are flawed by unscientific samples of employers and poorly specified student comparison groups. Some studies have found that employers were satisfied with former vocational students' job skills and work habits (Blackford et al. 1979; Iowa Department of Public Instruction 1979; Market Opinion Research 1973). However, the studies with the most rigorous methodology have found no significant differences in employer satisfaction between former vocational and nonvocational students (Kaufman and Lewis 1972; Molnar, Pesut, and Mihalka 1973). Studies of attendance or dropout effects are severely hampered by selection problems. Bergstrand, et al. (1979) found no effect for vocational education on dropout rates. Nolfi et al. (1977) found that vocational students had higher dropout rates than students from three other high school programs. Grasso and Shea (1979b) uncovered a paradox in the NLS (Parnes) data: among all students who started a given high school year, general curriculum students were more likely than vocational students to finish that year; but the number of vocational program students increased from year to year. The data did not permit Grasso and Shea to confirm their hypothesized explanation for that paradox, and it adds to the uncertainty regarding the proximate effects of vocational education.

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*This section is based on Mertens et al. (1980), pp 17-73.

Mertens et al. (1980) reviewed eight rigorous studies of the effects of high school vocational education on continuing education. Six of those studies showed higher overall rates of post-secondary participation for nonvocational than for vocational students. The other two studies showed no difference. Mertens et al. noted, though, that the failure of these studies to account for selection bias renders their findings useless for answering the question of whether vocational education has an independent effect on continuing education (see Meyer (1981c) and the previous discussion in this chapter). Findings by Ludeman (1976) and Strickler (1975) that vocational students had lower educational aspirations than did nonvocational students are similarly weakened by the selection problem. The only relevant and rigorous study reported in Mertens et al. (1980) of the effects of vocational education on a student's self-image showed no significant difference between vocational and nonvocational students (Market Opinion Research 1973).

It would appear that, despite the objectives of its practitioners and their belief in the success of their programs, the evidence is not overwhelming or unambiguous that high school vocational education has different effects from a general curriculum on proximate outcomes. That fact makes it difficult to detect effects on more remote outcomes such as earnings or employment.

The framework outlined in this chapter has many limitations. It is static, not dynamic or developmental. Its point of view is primarily economic, and it, therefore, slights the psychological and educational dimensions of the problem. It is eclectic, rather than doctrinal, and it does not claim to be integrated. It is a framework only, not a fully developed theory of this complex set of interrelationships. Yet, it is hoped that it represents a useful step in the direction of developing such a theory, and that, at least, it sets out explicitly the framework that has guided the analyses reported here.

CHAPTER IV

LABOR MARKET EFFECTS: EARNINGS

Three broad categories of the effects of vocational education are examined in this report: labor market, education, and aspirations. The labor market effects include earnings, unemployment, training-related employment, type and characteristics of jobs, and labor force experience. Earnings, as the most common measure of labor market success, are a natural focus for evaluating the effects of vocational education. The emphasis here is on the YAW data set. The other data sets, NLS-LME and Class of '72, are discussed only when their results cast light on the YAW results.

For the YAW data set, the analysis is best summarized by noting that differences between vocational education and general curricula apparent in simple cross-tabulation of earnings on the most recent job were statistically significant for women but not for men, when personal characteristics and other circumstances were controlled through regression techniques. The general thrust of these results was not altered by variations in the method of identifying high school curriculum, in the specification of the comparison groups, or in the specification of the form of the equation. The absence of difference was found also in estimates for the 1976 and 1977 data from the NLS-LME. Stronger effects were found for the Class of '72 survey. The emphasis that earnings has received as an evaluation criterion warrants an extended discussion of the basis for those findings.

The following subsection describes the data and earnings differentials by race, sex, and curriculum. The basic reduced-form estimates of the effects of curriculum on men's earnings are then presented. Some possible explanations are offered for the anomalies that emerge from that analysis. Evaluating those explanations involves varying the methods for identifying high school curriculum, for comparing vocational graduates to different control groups, and for investigating structural and reduced-form versions of the model. The impact of those variations on the estimates of curriculum effects for men in the most recent job is considered in the next subsection. The approach is repeated in an abbreviated form for women. The pattern of earnings on the first regular full-time job after high school graduation is then examined. Finally, rates of growth of earnings are examined both within jobs and over early stages of the respondents' careers.

Each respondent in the YAW data set was asked about hourly earnings at two points in that person's life cycle: the first "regular job" held after leaving high school and the current (or most recently held) "regular job." The most recent job was usually held in 1980 for YAW respondents, 1979 for Class of '72 respondents, and 1976 or 1977 for men and women, respectively, in the NLS-LME data set. Respondents in the YAW survey were told to interpret "regular job" as a full-time job held for at least six months with the same employer. For both of these jobs the respondent was asked separately for earnings at the start and at the end of the job (or at the time of interview for "ending" wage of the current job). The reported earnings were later converted to constant 1980 dollars by the authors using the reported dates for beginning and ending each job for the YAW survey and the survey date for Class of '72 and NLS-LME. These four pieces of information permitted estimates of levels of earnings and of growth in earnings within the two jobs and over the respondent's career. These data allowed consideration in the YAW sample of the existence and persistence of earnings differentials. Since one principal concern of this report is the issue of whether differences by curriculum in early labor market experience persist or disappear, the analysis looks first at the respondent's most recent job and then at the first full-time job after high school.

Most Recent Job

The earnings variable for the most recent job applies to the respondent's principal employment at the time of the interview or, if the respondent was not working at the time of the interview, to the most recently held position. This approach seems to be more pertinent to the principal policy questions than is an approach, such as that used by Conroy (1979), that considered total income from wages and salaries during a year. As reflected in the legislative criteria for evaluating vocational education, the central concern of policymakers is whether the vocational education student develops marketable skills. Since the norm in the American economy is for an individual to hold a single full-time job, policymakers presumably evaluate the development of marketable skills in terms of such a job (or the principal job of a multiple jobholder). Total wage and salary income during a year can include earnings from several successive employment episodes in different jobs, from two or more jobs held concurrently, or from jobs in what has come to be called the "irregular economy." If a person works at two or three jobs to overcome earnings deficiencies on the principal job, it is hard to say that training for that principal job has adequately prepared that person for the labor market. Whether vocational education participants are more likely than general curriculum students to be multiple jobholders, to have episodic employment histories, or to work more weeks in a year are interesting but distinct issues. Using total wage and salary income for a year fails to distinguish those issues from each other or from the earnings issue that is

the principal focus of this section of the analysis. Some of the other issues are examined in the following chapter.

Recent studies that have also focused on the earnings associated with a respondent's principal job include Meyer and Wise (1979), Grasso and Shea (1979b)*, Gustman and Steinmeier (1981), and Meyer (1981b). These studies used hourly, weekly, and/or annual earnings. Where weekly or annual earnings were used, additional equations were usually estimated for hours worked per week and weeks worked per year. This approach, which is followed here, maintains the distinction among the relevant issues that the use of total wage and salary income blurs.

The earnings data were examined using both simple cross-tabulations and multiple regression. The general strategy for constructing appropriate comparison groups involved partitioning analyses by race (white and minority**) and sex. The comparison among high school curriculum groups was sharpened by restricting the subsample to high school graduates who had either no formal postsecondary education (NOCOL) or no participation in a four-year academic postsecondary program (NO4COL). The most restrictive of these subsamples corresponds to that used in most studies of the earnings effects of vocational education (such as Grasso and Shea 1979b; Meyer and Wise 1979; and Gustman and Steinmeier 1981). The reasoning behind such restrictions is discussed in chapter 3.

Evidence from Simple Cross-Tabulations

Tables 4.1 and 4.2 present mean hourly and weekly earnings data for those three subsamples of the YAW data set. Annual earnings data were not calculated because the YAW survey did not ask about weeks worked per year. The respondents included here must have been working at least twenty hours per week at their jobs and had to have data for the other variables that appeared in the regression equations.

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*Grasso and Shea (1979) used both hourly earnings on the principal job at the time of the interview and total wage and salary income in the year preceding the interview. In most cases they found no significant differences between vocational and general students for either measure of earnings (except for a positive difference for females from a business or office curriculum).

**Minority included blacks, Native Americans, Hispanics, Orientals, and "others."

Differences by curriculum. When no restrictions on post-secondary education are imposed on the sample, college prep students reported the highest mean hourly earnings in all race/sex groups. Their differential over vocational students range from a high of $2.00/hour for minority men to $.63/hour for minority women. For whites of both sexes there was virtually no difference in mean earnings between vocational and general students. Minority men and women in vocational programs on the average earned, respectively, $.56 and $.96 more per hour than their general curriculum counterparts. Weekly earnings exhibited a similar pattern.

When students with any postsecondary education are removed from the comparison in the YAW data, former college prep students except for minority women, continued to earn more than vocational students. Among minority women, however, former vocational students earned more even than college prep students. For all race/sex classifications, former vocational students reported earning more per hour than former general students. The differential was small for men but exceeded $1.00/hour for women. Similar patterns emerge for weekly earnings.*

For the Class of '72 data, former college prep students earned the highest amount. There was no significant difference for hourly earnings between vocational and general curricula, although the average for vocational students exceeded that for general students within each race/sex group. The data appears in table 4.3. Interestingly, the distribution of students across race/sex groups was such that the overall average of hourly earnings for general students exceeded that for vocational students. The pattern was different for weekly earnings because male vocational students reported higher average earnings than those for even college prep students. The difference between vocational and college prep curricula was not significant for men, but male vocational students earned on the average significantly more per week than male general students. For women, also, vocational students earned more per week than general students, although in this case the difference was not statistically significant.

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*The principal change lies in a large differential for minority men who have no postsecondary education. The number of general curriculum minority male respondents was small; their reported hours worked were implausible; and the different pattern for minority men between hourly and weekly earnings differentials should be disregarded.

In the NLS-LME data set, men in vocational or business earned more per hour than general students (table 4.4). For weekly earnings the differences were relatively smaller than for hourly earnings, but the overall pattern was similar. Women who took business programs earned more per hour than general students, but other vocationally educated women earned less than general students. Weekly earnings followed a similar pattern.

The general pattern from the cross-tabulation is for vocational students to earn less than college prep students but more than general students. The significance of the differences varies among the sets.

Differences by program area. Earnings varied substantially among vocational education program areas. Table 4.5 shows that only specialists in trade and industry (TRADE) reported mean earnings that were higher than those for the entire sample (including college graduates). Business and office (BSNS) and home economics (HOMEC) students reported the lowest earnings for vocational students. The mean hourly earnings figures range from $5.06 to $7.45. Thus, TRADE specialists earned an average of 50 percent more than HOMEC specialists. It is clearly misleading not to allow for differences among vocational program areas when estimating their impact on labor market outcomes, and the best studies cited previously incorporate such differences when the data permitted. That approach is followed here.

Even within program areas there were differences by race and sex. Within TRADE and BSNS men tended to earn more than women and whites, more than minorities. The two exceptions were that average earnings do not differ significantly for white and minority women in BSNS and that white women earned more than minority men in TRADE. It would seem that sex stereotyping generally persists, either in the selection of courses within program area, in the job search/hiring process, and/or in directing women into lower-paying jobs than men who receive training in the same program area.

Differences Controlled for Multiple Influences

The cross-tabulations suggest that race, sex, and program area influence the relationship between high school curriculum and earnings. A tabular analysis that seeks to allow for these and other influences quickly becomes unwieldy. Multiple regression is one common technique for handling such analyses, and it is used in what follows. The simple tabular analyses suggest, first, that the regression analyses should be partitioned into four race/sex group, and, second, that indicators of participation in vocational education should distinguish among program areas. The ideal partitioning of vocational program areas is restricted by small response frequencies in the YAW sample for

nonwhites and for the agriculture, health, and home economics program areas. Hence, separate equations could not be run for each race/sex group, and agriculture, health, and home economics graduates were combined into an "other" vocational education category in the regression analyses.

Two exploratory regressions for hourly earnings confirmed the need to maintain at least the partitioning of the sample between men and women. The estimates are shown in table 4.6. The explanatory variables used in that and subsequent regressions tables are defined in table 4.7. The first equation in table 4.6 only allows for a different mean of hourly earnings for women, and the coefficient is negative and highly significant. It suggests that women earn $1.83 an hour less than men when other factors (such as race, socioeconomic status (SES), residence, high school curriculum, postsecondary education, and labor force experience) are controlled. The second equation allows in addition for different marginal effects of the explanatory variables for men and women. The column labeled "B_f-B_m" gives estimates of the differences by gender in marginal effects. It shows that restricting marginal effects of explanatory variables to be equal for men and women understates the "pure" sex differential. It suggests, also, that the marginal impacts may differ significantly* between men and women for at least some personal characteristics and that the "pure" sex differential in hourly earnings is closer to $2.31 than to $1.83. Separate equations, rather than versions of the second equation, were run because an F-test on the residuals of that equation showed significantly different (at the .01 level) estimated residual variances for men and women.

The subsamples of respondents used in the earnings regressions for the YAW data set differed in one respect from those presented in the simple cross-tabulations. Respondents who did not answer the direct question about earnings were asked whether their hourly earnings fell into one of four categories: less than $3.00, $3.00 to $5.99, $6.00 to $9.99, and $10.00 or more. Most respondents answered either this question or the more direct question. For those respondents who provided only bracketed earnings information, expected earnings were calculated, conditional on the bracketed information. These calculated earnings figures were derived from separate equations for men and women for those respondents who answered the direct question about earnings. The equations "explained" wages as a function of personal characteristics (excluding high school curriculum), job characteristics, postsecondary educational attainment, and the knowledge that the wage fell within one of the four categories

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*The last sentence of this paragraph explains why the conventional significance tests, which are the basis for this use of the term "significantly," are not strictly appropriate here.

listed above. The estimated coefficients for both the first and most recent jobs are shown in table 4.8. These calculated earnings figures were used for 64 of the 513 men and 67 of the 500 women respondents included in most earnings equations. In subsequent regression analyses, dummy variables were used to identify differences in the means of earnings between those sixty-four or sixty-seven cases and the others. In all instances the coefficient on the dummy variable was estimated not to differ significantly from zero.

As figure 3.2 in chapter 3 illustrates, vocational education is only one of many influences on earnings, and its effects may be both direct and indirect. Assessing its effects requires controlling in some way for the e other influences. They are allowed for in the specification of the regression equation as either a structural or a reduced-form equation.

Given the model of chapter 3, equations containing only contextual and individual attributes and high school curriculum are reduced-form equations, and the coefficients of vocational program variables in those equations estimate total (direct plus indirect) effects of vocational education. If both postsecondary attainment and job characteristics are included as explanatory variables, a structural equation is being estimated, and the coefficients of vocational program variables in those equations estimate direct effects. If job characteristics are excluded, the equation is a (modified) structural equation in which the indirect effects of high school curriculum that operate through postsecondary education are split between curriculum and postsecondary variables.

Experimentation with functional form and selection of variables for inclusion in the equations was limited entirely to the YAW data set. When a preferred specification was selected for that data set, the specification of the corresponding equations in the other data sets was chosen to match the YAW specificaton as closely as the data would permit.

Because the particular measures of personal attributes, postsecondary experiences, and jobs characteristics vary among the data sets, the exact specification of either structural or reduced-form equations is different among the three data sets. Most of the differences in variable definitions are shown in table 4.7. As noted in chapter 2, the most important differences are in the specification of high school curriculum and postsecondary education. For both the YAW and Class of '72 data sets, four vocational program areas are identified. The NLS-LME data set identified only two: business/commercial and other vocational. In the NLS-LME data set postsecondary experience was identified separately by the number of years of education and the broad occupational area of the training (such as clerical or professional/technical). Postsecondary experiences for the Class of

'72 and YAW data sets were specified differently from NLS-LME but are much like each other. The principal difference is that only one category of two-year program--two-year vocational/technical--was identified in Class of '72.

Coefficients of the high school curriculum variables measure the difference between graduates of a vocational or college prep and a general high school curriculum in the effect of that curriculum on earnings. Because all respondents are high school graduates, no absolute measure of the return to high school education is provided by the equations.

Reduced-Form Estimates: Men

For men, the estimates for reduced-form equations for the YAW sample appear in tables 4.9 and 4.10, and those estimates uniformly show no significant differences in the impact of vocational and general curricula for hourly or weekly earnings for any of the three subsamples. There is a tendency for specialization in TRADE and distributive education (MARKET) to be associated with higher earnings and for BSNS and OTHER specializations to be associated with lower earnings, but none of the coefficient estimates are strictly significant, since the coefficient of MARKET are based on only eight cases.

Estimates from the Class of '72 agree in direction with those of the YAW sample for three of the four vocational program areas. The MARKET program coefficient is strong and statistically significant for both hourly and weekly earnings, and the OTHER program area is significant for hourly earnings. Only the TRADE coefficient disagrees in sign with the YAW estimates. The estimates are shown in table 4.11 and 4.12.

None of the curriculum coefficients is significant for the NLS-LME data set in the reduced-form specification. Those estimates are displayed in table 4.13.

In contrast, the individual characteristics of being nonwhite and having accumulated general labor force experience contributed significantly to explaining variations in both hourly and weekly earnings for all subsamples in the YAW data set. Rural residence and family SES were usually not significantly different from zero, but the magnitude and significance of their effects were sensitive to the use of hourly or weekly earnings and to selection of the sample.

The estimated effect of the college prep curriculum variable is sensitive to the choice of subsample in the YAW data set. When either all college participants or none are included in an hourly earnings equation, the college prep variable has a large, significant, positive coefficient. The estimated effect is

$1.30/hour for all respondents and $1.95/hour when college participants are excluded. When respondents with experience in two-year programs (but not four year programs) are included, the college prep variable is not significant. This result suggests that the college prep curriculum variable serves as a proxy in the YAW data for the respondents who are destined to attend four-year colleges and as an indicator of the brighter students among those who attended no college at all.

The estimates for men of the effects of a high school curriculum are relatively robust in the YAW data set. The estimates did not change very much regardless of which personal variables are included in the equation. Among the contextual or individual attributes one might expect to affect earnings, academic ability was the most important one for which the YAW survey does not have a direct measure. The best proxy for academic ability available in the YAW survey is a measure of family SES when the respondent was fourteen years old. However, the SES variable did not significantly contribute when RACE, RURAL, and EXPER are included in the equation. Only the coefficient of the college prep variable was sensitive to inclusion of SES, and when the college prep variable was included, SES is insignificant. As is evident below, SES makes a significant contribution to explaining women's earnings, but not men's earnings.

Possible Explanations for the Reduced-Form Results

The results from the reduced-form equations from the YAW data set suggest that, for men, most vocational education program areas in high school do not significantly differ from a general curriculum in their impact on earnings in the latter part of the early life cycle. If there is an exception to that rule, it is most likely in the MARKET area, for which there is consistent evidence of a positive differential for vocational education in both the YAW and the Class of '72 data. These results can be explained in several ways as follows:

1. The effects are restricted to certain groups of students and emerge only under specific combinations of circumstances.

2. Those aspects of vocational education that make a difference for earnings are not adequately identified by self-report of curriculum and specialty area.

3. There is a difference in the initial stages of the early phase of the life cycle, but that difference narrows and eventually disappears with time.

4. Direct and indirect effects are significant when considered individually, but they systematically cancel each other out.

5. There is no difference.

These possible explanations for the reduced-form estimates are considered below.

Limited scope of effects. An example of the first explanation comes from the simple cross-tabulations of the YAW data discussed above. The data suggest that differences in earnings by curriculum are more likely to be found among minorities than among whites. However, equations using the YAW data, which allowed for different effects of curriculum for whites and minorities, showed no significant differences for men between vocational and general curricula for either racial group, once the racial difference in average level of earnings is controlled. This result is robust across subsamples and equation specifications in the YAW data set. It holds for hourly or weekly earnings for all three of the YAW subsamples. It holds whether SES and/or RURAL and/or EXPER are included in the equation. Estimated coefficients are shown in table 4.14.

It is impossible to test all combinations of groups of students and circumstances. At least the most obvious set of combinations, race/sex category, is not one that is associated with differences by curriculum in the effects on earnings.

Inadequate curriculum specifications. The second explanation, the inadequacies associated with self-report of curriculum, encompasses several specific points. It includes, for example, the Grasso and Shea (1979b) criticism that data such as are analyzed here may be inherently incapable of revealing any meaningful effects of vocational education because they cannot reflect differences in curriculum quality or content from school to school, or even from teacher to teacher within the same school. Grasso and Shea called this the "aggregration problem." It also includes the problems associated with self-report of curriculum (Mertens et al.1980). Neither of these issues can be settled with the data available here.

Nevertheless, the YAW questionnaire does provide additional information on some of the important aspects of a vocational curriculum. For example, approximately 55 percent of male vocational students (25 percent of all the respondents of the sample) indicated that they had received a certificate of completion from their vocational program. A certificate should help to identify students who have learned job skills. In reduced-form equations containing the personal and curriculum variables, however, there was no significant difference in average hourly or weekly earnings between vocational students who did and did not

receive a certificate. Furthermore, allowing for a certificate had no significant effect for the estimates of the marginal impacts of the various vocational program areas. This result held regardless of whether or not the comparison included students who attended two-year or four-year colleges.

Respondents were also asked the extent to which they used the training they received in their high school vocational courses on their current job. The information was added to the equation in three ways in separate tests, but in none of the tests did use of training either significantly affect earnings or permit indicators of vocational program area to affect earnings. These results held whether or not students who attended college were retained in the comparison.

These estimates for the use of high school training on the most current job should not be surprising. In the latter part of the young adult's early work experience (at the time of the most recent job for this YAW survey), that person should probably be expected to have progressed beyond skills learned in high school. It is to be expected that respondents, in answering the question "To what degree do you use the skills you learned (in high school vocational courses) on your current job?" would often consider primarily their most recently acquired skills, perhaps overlooking any role high school vocational education might have had in teaching the skills that were prerequisites to those now being used. The reported link between the use of learned skills and earnings is likely to be tighter for the first full-time job than for the current job; earnings on the first full-time job are considered below.

The YAW survey included several other questions designed to more accurately characterize the high school curriculum. Respondents were asked whether, as juniors or seniors, they had spent more time in job-related courses than in other courses (16 percent of men said they did), about the same time (18 percent), or less time (13 percent); whether they received help from a high school teacher or staff member in finding their first full-time regular job (10 percent replied that they did); whether they received instruction in job-hunting skills in high school (31 percent did); how well their high school program prepared them to get a job (62 percent replied "very well" or "fairly well"); and whether, in retrospect, they would choose to repeat the same category of high school curriculum that they actually had pursued (37 percent said they would repeat). In reduced-form equations that contained personal and curriculum variables, none of these additional variables (considered separately or in combination) contributed significantly to the explanation of earnings for men. And none of them significantly altered the estimated effects of high school curriculum variables.

It would appear, therefore, that a more precise specification of high school experience (at least within the limits permitted by the YAW questionnaire) does not reveal any effects of high school curriculum that are overlooked by using the simple curriculum identifiers. To the extent that it can be explored here, an imprecise specification of high school curriculum does not seem to account for the absence of significant differences in the earnings of former vocational and general male students on their most recent job.

Variation over the life cycle. The third possible explanation cited above--varying impacts of curriculum over the early life cycle--has been proposed before by other researchers (see Mertens et al. 1980) and was discussed most recently by Meyer (1981b). This explanation is reflected in figure 3.3 in chapter 3. The hypotheses involved here can be tested by allowing the marginal effect of curriculum on the average level of earnings to vary with the length of labor market experience.

It is clear from the reduced-form results cited above that average earnings rise with experience. When interactions of a vocational program area and experience are added to such an equation, the experience variable remains positive and significant. Estimates are presented in table 4.15. Among eight program or program/experience interaction coefficients, only the MARKET program indicator and interaction term are significant by conventional criteria. However, those two coefficients are based on only eight cases, and their magnitudes are implausible. Moreover, all four of the vocational program coefficients are negative, whereas all of the interaction terms are positive. These results would suggest that vocational program graduates have an earnings disadvantage on their current job, but that the disadvantage is progressively smaller for people with more experience. Since none of the eight estimated coefficients are significantly different from zero or of plausible magnitude, no conclusion can confidently be reached here about the effects of experience on earnings differences by curricula. These results for all respondents do not change materially when respondents with any college experience are excluded.

Cancellation of effects or no differences. The best interpretation of these findings is probably that in the YAW data set there is no statistically significant difference in the total effects of vocational and general curricula on men's earnings on the current job. It would seem, therefore, either that there is no difference between vocational and general curricula in their effects on earnings in the latter portion of the early stage of one's working life, or that significant direct and indirect effects tend to offset each other. The direct effects of vocational education on earnings and the impact on earnings of those intervening variables through which vocational education would be expected to have an indirect effect are examined in the following subsection of the chapter. Subsequent chapters consider whether

vocational education influences those intervening mechanisms, which are postsecondary educational attainment and job characteristics. Clearly, only the all-respondents subsample is appropriate for considering the mediating role of postsecondary educational attainment on labor market effects of vocational education.

Contribution of Postsecondary and Jobs Variables: Men

Both the postsecondary and the jobs variables significantly improve the explanatory power of the earnings equations for men in the YAW data set. Addition of the eight postsecondary variables to an equation containing the personal and curriculum variables increases the total fraction of variation in earnings explained by the regressions, from .12 to .16 for hourly earnings and from .10 to .15 for weekly earnings. Adding the jobs variables, also, raises the fractions explained further, to .19 and .16 for hourly and weekly earnings, respectively. Either the postsecondary or the jobs variables contribute more to explaining earnings than do the high school curriculum variables. In an equation with personal and postsecondary variables, adding the high school curriculum variables raises the fraction of variation explained only from .15 to .16 for hourly earnings and from .13 to .15 for weekly earnings. That most of the effect of the high school curriculum variables is captured in the distinction between college prep and general curricula can be seen by considering the estimates of the direct effects of high school curriculum on earnings when postsecondary attainment is allowed to influence additively the level of average earnings. Those estimates are shown in table 4.16.

Postsecondary attainment. When the postsecondary variables are included, both weekly and hourly earnings are significantly influenced by the college prep curriculum indicator. Students who took a college prep curriculum were associated with higher earnings than students who took a general curriculum. Even larger earnings differences were found for eight vocational students in MARKET, but the small number of cases prevents extending that finding to the general population of vocational students. The other vocational coefficients were not significantly different from zero. Similar results were found for the NLS-LME data set, estimates for which are shown in table 4.17.

A very different picture emerges from the Class of '72 data. For hourly earnings, only BSNS is significant at the .05 level, and it is associated with lower earnings. MARKET loses the significance it had in the reduced-form specification. TRADE becomes positive and significant at the .10 level. For weekly earnings, all three of those coefficients are significant at the .10 level or better, and both MARKET and TRADE are positive.

In line with these apparently significant findings for the Class of '72 data, further steps were taken to improve the

specification of postsecondary experiences in the YAW data set. A series of questions asked whether and for how long the respondent had participated in any one of eight categories of postsecondary educational or training programs, and whether the respondent had completed the programs, received a certificate, or used (on any subsequent job) the skills taught in the program. Summary statistics for those data are presented in chapter 7.

Each question about postsecondary experience was used to form a different set of explanatory variables for the YAW data. Indicators of completion of postsecondary programs contributed most to the overall explanatory power of the earnings equations. Both the discussion of fractions explained of variation in earnings and the coefficient estimates in table 4.16 (and all following tables in this chapter for any of the data sets that include postsecondary variables) are based on the completion form of the postsecondary information. The estimates for the YAW data of direct effects of high school curriculum did not change much as different forms of the postsecondary variables were used.

The estimates of effects of postsecondary education or training suggested that completing an advanced degree or a four-year college program is associated with higher earnings. An additional additive effect was found for college prep curriculum. Data from the Class of '72 and the NLS-LME estimate significant effects in the same direction, although the estimated effects are considerably smaller than in the YAW data set.

Postsecondary vocational education, in the usual sense of that term, is most often provided by two-year colleges or technical institutes. Completion of a two-year private postsecondary program was associated with about $.86 per hour and $50 per week in statistically significantly higher earnings for the YAW data set. The estimates for similar programs at public community colleges or technical institutes are not significantly different from zero. Estimates from the Class of '72 showed that for hourly, but not for weekly, earnings there was a significant and positive effect for postsecondary vocational education. The estimated effect was almost exactly as strong as the estimates for a four-year college program. Nevertheless, it would appear that for men, private two-year institutions were associated with a statistically significant difference in earnings on the most recent job compared to public two-year institutions, when personal characteristics such as race, SES, residence, and labor market experience were controlled. As noted above, the SES variable used here may not be a good indicator of academic ability, so that one cannot be certain that ability was adequately controlled.

Two broad categories of government training programs were considered. First, respondents were instructed to indicate only those military training programs that were related to some

civilian occupation. The estimated effects on both hourly and weekly earnings were negligible. The second government-sponsored category treated all civilian job-training programs, such as CETA, WIN, and Job Corps, as a homogeneous group. The large negative and significant estimates seem to reflect the selection criteria for these programs. Similar estimates emerged from analysis of the Class of '72 data.

The postsecondary categories of apprenticeship and employer-sponsored formal training are usually associated with a particular job. Thus, calling them "postsecondary training" rather than "job characteristics" is somewhat arbitrary. Whatever their classification, they were associated with positive effects on earnings in both the YAW and Class of '72 data sets although the YAW estimates were not strictly significant.

Different categories of postsecondary training were used in the NLS-LME that prevent a direct comparison with the YAW and Class of '72 results. However, one would expect that more years of education would increase earnings, other things equal, and that expectation was borne out. Also, professional, managerial, and skilled training were associated with significantly higher earnings.

The estimated effects of postsecondary education conform to prior expectations and show strong similarities in the YAW and Class of '72 data sets. It is clear that postsecondary education or training experiences have a substantial direct impact on earnings of men. Postsecondary vocational education in particular, showed strong effects in the Class of '72 data, though the YAW results were less supportive. If high school curriculum can be shown to affect the participation in and completion of these programs, it can have indirect effects on earnings. These impacts are considered in subsequent chapters.

Job characteristics. Indirect effects may also operate through the individual's work history and through some important characteristics of jobs. Two indications of work history and two job characteristics were added to earnings equations for the YAW sample that included the personal, curriculum, and postsecondary variables. Different work history and job characteristics variables were available in the other data sets.

The work history measures reflected employment stability. One measure was a retrospective self-report of the number of full-time jobs the respondent had held since graduating from high school. Having held more jobs reduced current earnings, but not significantly. The other measure, the number of months on the longest job, was positively associated with earnings. However, when tenure on the most recent job was also included in the equation, tenure dominated and was significant, whereas the months-on-the-longest-job variable became insignificant. An additional year of tenure had a statistically significant effect

of raising earnings. The direction of this effect agrees with a substantial body of labor market literature and with the estimates from the Class of '72 data.

The other job characteristic was whether the wage on the respondent's job was set through collective bargaining. About 34 percent of male respondents reported that unions played such a role on their jobs. The estimated effect on hourly earnings was large, positive, and statistically significant, although the effect on weekly earnings was not.

The job characteristics variables added new information to the YAW equation but did not affect the estimated coefficients of the curriculum and postsecondary variables for either the hourly or the weekly earnings equations. The largest changes occurred for coefficients of COL4YR, PCCT, and GOVT. In none of these cases, however, was the outcome of a significance test altered or the sign of a coefficient changed.

In summary, among vocationally-educated men, only those who took a marketing program showed a significant positive difference in earnings (when personal attributes, postsecondary attainment, and job characteristics were controlled). Data from the Class of '72 supported the results and suggested that trade programs also raise earnings. The Class of '72 data further suggested that business and other programs are associated with lower earnings.

Personal attributes, postsecondary attainment, and job characteristics all affect earnings significantly and in the expected directions. Postsecondary vocational education, in particular, was found in the Class of '72 data to have a positive effect on earnings. For the YAW data set, two-year programs had positive influences on earnings for men only when administered through private schools, not public community colleges. There is room for indirect effects of a vocational curriculum to be felt to the extent that it affects postsecondary attainment and job characteristics.

Reduced-Form Estimates: Women

Earnings equations estimates for women differ substantially in the YAW data set from those for men. The personal and curriculum variables are better able to explain earnings, and the significance of coefficients according to conventional tests is more sensitive to the choice of subsamples.

Tables 4.18 and 4.19 show that in reduced-form equations for the YAW sample all four personal attributes (RACE, SES, RURAL, and EXPER) were significant (and worked in the expected directions) when all respondents were considered. The SES and RACE variables seem to be proxies for college attendance, since they

were not significant when respondents who attended some college were eliminated from the subsample. Interestingly, the RACE variable was not significant in either the Class of '72 or NLS-LME results. Being married significantly reduced weekly earnings, but not hourly earnings, in the YAW estimates. As shown below, marriage significantly reduced hours worked per week, and it is that effect that was reflected in weekly earnings. Class of '72 results are shown in table 4.11 and 4.12 and NLS-LME results in table 4.20.

Among the vocational program categories for the YAW data set, TRADE and MARKET each contained eleven or fewer women respondents, whereas the BSNS category contained half of the sample. For each of the program categories, the estimated effect on hourly earnings followed a distinct pattern as the subsample and the data sets were varied. For the YAW sample when all respondents were included, TRADE was associated with higher earnings, and MARKET was associated with lower earnings. BSNS and OTHER showed no effect. The pattern in the Class of '72 was almost the direct opposite of that in the YAW data set. MARKET and TRADE, both negative in the YAW data, were not significant in the Class of '72; BSNS and OTHER were significant positive and significant negative, respectively. In the NLS-LME data set, BSNS was not significant, but the nonbusiness vocational category had a significant negative coefficient.

When respondents who attended any college were excluded (NOCOL), the TRADE coefficient was even larger in the YAW data set, and its t-value increased. The TRADE coefficient for Class of '72, though not significant, became positive. The effect of MARKET remained negative but was insignificant for both YAW and Class of '72. The program area with the largest number of respondents (BSNS) was associated in the YAW data with significantly higher earnings, and, thus, agreed with Class of '72. Therefore, at least some degree of consensus apparently exists for the women's results between the YAW and Class of '72 data sets.

Each of the program effects is interesting, and each reflects an aspect of sex stereotyping in occupations (and, apparently, in vocational education participation). For the YAW sample, the BSNS coefficient agrees (in direction and significance) with the Grasso and Shea result, but only when the sample is restricted as in Grasso and Shea to respondents with exactly twelve years of education. The BSNS category is important because it accounts for 60 percent of women respondents,* far more

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*The sampling procedure ensures that this percentage does not apply to the population. The 60 percent figure is an unweighted proportion of the sample. However, BSNS is clearly the most important vocational education program area for women.

than any other curriculum category. The MARKET coefficient was negative for women but positive for men in both the YAW and Class of '72 surveys. The small number of respondents of both sexes in MARKET suggests that these estimates should be regarded cautiously. However, it would appear that men and women in this program area are directed into routes that have substantial differences both from each other and from the typical job for people of each sex. Finally, TRADE indicates a much less common (and in some cases nontraditional) occupational route for women, whereas it represents the most common route for vocationally educated men. For women it was associated with higher earnings than was a general curriculum. These data would seem to agree with the often stated proposition that sex stereotyping in occupations routes women into lower-paying jobs than men. The success of some vocationally educated women in working at nontraditional jobs suggests that vocational education can play a role in helping to overcome sex stereotyping, a goal expressed in the 1976 amendments to the Vocational Education Act.

The supplementary variables that were designed to more accurately characterize vocational education programs in the YAW survey contributed little more to explaining earnings for women than for men. As with the men's data, satisfaction with high school curriculum, whether the students would repeat their curricula, the intensity of studying vocational courses, receipt of a certificate of completion of a vocational program, and the receipt of teacher assistance in finding a job were unrelated to earnings. Unlike men, women who reported receiving information about how to search for and apply for jobs (about 41 percent of the sample) were associated with significantly lower earnings when personal characteristics and curriculum were controlled. This finding runs contrary to the expectation that aid in finding a job should raise earnings. It may reflect a selection process in which the students who are likely to earn less or who have not yet found a satisfactory job are given some instruction on looking for work while better students are encouraged to continue their education.

Women who reported that in their most recent job they used their high school training either moderately or very much were associated with lower earnings ($.75/hour and between $20 and $35 per week). Interacting the program area variables with a dummy variable showing use of skills learned in high school contributed little more to explaining earnings. As discussed in connection with men's earnings, the role of high school training in learning other skills may be overlooked by respondents, and the failure after as much as fifteen years in the labor force to progress beyond skills learned in high school is more likely to indicate a respondent's lack of normal career progression than it is to reflect the productivity of job skills learned in vocational courses.

As with the men's equations, interaction of program area variables with RACE showed no significant difference by race in the marginal effects of high school curriculum on earnings for the YAW data set.

Contribution of Postsecondary and Jobs Variables: Women

The structural forms of the earnings equations include postsecondary and jobs variables. As with the men's equations, both postsecondary and jobs variables substantially increase the fraction of variation in earnings that can be explained, and either the postsecondary or the jobs variables contribute more to the fraction explained than did the vocational education program variables. For example, in the YAW equations the fraction explained for hourly earnings rises from .12 to .22 when the postsecondary variables were added, and from there to .29 when the jobs variables were added. In contrast, the fraction explained drops only from .22 to .20 when the vocational education variables were excluded from an equation that included the postsecondary variables. Similar figures applied for weekly earnings.

The estimates of effects of high school curriculum were largely unaffected either by the inclusion of information about postsecondary experience or by the form in which the information was represented. The insensitivity of coefficients for high school curriculum allowed the program completion form of postsecondary information to be used in the YAW analysis, as it was for men. The only curriculum variable affected was the college prep indicator, the estimated coefficient of which for hourly earnings dropped and was not then significantly different from zero.

The estimated effects of completing postsecondary programs are shown in table 4.21 for the YAW survey, in table 4.22 for the NLS-LME, and in tables 4.11 and 4.12 for Class of '72. Statistically significant effects were found in both the YAW and Class of '72 data for completion of a four-year college degree, a two-year public community college or technical institute, or an employer-sponsored formal training program. Government training was associated with lower earnings. As with men, the government training variable apparently served as a proxy for the selection criteria for the program.

One category of participation in postsecondary education was significant for weekly, but not for hourly, earnings in the YAW data set. That category is private two-year colleges or technical institutes, for which completion of a program was estimated to increase earnings. Overall, the estimated effects of the postsecondary variables are plausible; they operate in the

expected directions, and they suggest significantly higher earnings for participants in either private or public two-year postsecondary vocational programs.

Addition of the jobs variables to an equation containing the personal, curriculum, and postsecondary variables had little effect on the estimated coefficients of those other variables in the YAW analysis. Estimates appear in table 4.21. The coefficient estimate that changed most was for MARKET in the hourly earnings equation.

Among the four jobs variables in the YAW data set, only the measure of time on the job that the respondent had held the longest (LONGEST) was statistically significant. The estimate suggested that earnings were higher for every additional month of tenure on the job held longest. It is likely that LONGEST identifies those women who have continually participated in the labor force. The absence of a complete work history for each respondent makes that speculation impossible to confirm; but continuous participation avoids deterioration of job skills, permits women to achieve the kind of career earnings progression that is routine for men, and is consistent with the findings presented here.

For women, two vocational education program areas were associated with significantly higher earnings than for general curriculum students. They were TRADE (although the sample is small) and BSNS (although the effect emerges for the YAW data only when the sample is restricted to women with no two- or four-year postsecondary education). MARKET was associated with lower earnings, in contrast to the association with higher earnings that was found for men. These effects were present in the YAW data set with little change in both reduced-form and structural estimates. Additional significant effects on earnings were associated with postsecondary experiences that include postsecondary vocational education as well as four-year college and employer-sponsored training.

Earnings on First Regular Full-Time Job

Earnings on the first regular full-time job would be expected to show a pattern of variation with postsecondary educational attainment that is clearer than it was for the most recent job, because the length of one's education usually dictates the timing of that first job. Hence, controlling for educational attainment was even more important for a valid comparison in this case than it was for the estimate of earnings on the most recent job. For that reason only the NOCOL subsample for the YAW data set is discussed for estimates of the reduced-form specification. The ALL subsample is used for estimates of the structural form. Because of the complexities of sorting out the first regular full-time

job from the individual respondent's job history (and the impossibility of doing so for many NLS-LME respondents), no comparisons can be made here with the NLS-LME and Class of '72 data sets.

Reduced-Form Estimates

The effect of controlling for educational attainment can be seen in tables 4.23 and 4.24, which show data from the YAW sample for mean hourly and weekly earnings cross-classified by race, sex, and curriculum. The mean hourly and weekly earnings for white general curriculum students were higher than for earnings for white vocational students when all respondents were considered. When only white respondents with exactly twelve years of education were considered, male vocational students earned more per hour than general students. Both groups earned the same amount per week. The differential for white women between vocational and general curricula was smaller in the more restricted subsample. For minorities, the earnings differential between vocational and general students increased when the more restricted subsample was considered. For minority men, the earnings advantage of general curriculum students increased; on the other hand, for minority women the earnings advantage for vocational students increased. In short, the relative earnings for vocational and general students are quite sensitive to the selection of the race/sex subgroup and levels of educational attainment.

Variations among respondents in earnings on the first regular full-time job are very difficult to explain when the sample is restricted to those respondents who completed exactly twelve years of education and the reduced-form specification is used. For neither men nor women are the estimated coefficients of the personal or curriculum variables significantly different from zero. The estimates are shown in tables 4.25 and 4.26. The only exception to the generalization is for a positive estimate of the coefficient for SES in the weekly earnings equation for men.

Education is, apparently, the principal determinant of earn- ings on the first regular full-time job, and when it is controlled, variations in earnings are largely random. This observation is supported by the finding that, when reduced-form equations were estimated for all respondents regardless of educational attainment, several factors contributed significantly between both men and women to explain variations in earnings. For men, estimated coefficients for hourly earnings for all the vocational program area variables were negative, and the coefficients for BSNS and TRADE were significant. The college prep variable had a significantly positive effect, and rural residence a significantly negative one. For women, SES and college prep curriculum

significantly increased earnings, whereas rural residence significantly reduced them. None of the vocational program indicators were significantly different from zero for women.

Contribution of Postsecondary Education and Job Characteristics

These results for the personal and curriculum variables held when indicators of postsecondary program completion were added. Estimates are given in tables 4.27 and 4.28.

For men, completion of a four-year college program was associated with higher earnings. Postsecondary vocational education also contributed to increased earnings. For private two-year programs earnings were significantly higher. For public two-year programs, the effects were positive but smaller and not strictly significant for either hourly or weekly earnings. The coefficients of high school curriculum were unaffected for hourly earnings but became significantly negative for weekly earnings when the postsecondary variables were added. Recall that these estimates are a mixture of the direct effects of vocational education and of the indirect effects of vocational education that operate through the job characteristics variables. The reduced-form estimates included those effects and, in addition, the indirect effects of vocational education that operate through postsecondary education. The reduction in the vocational program coefficients when the indirect effects of postsecondary education are removed suggests that those indirect effects (at least for BSNS and MARKET programs) serve to increase earnings. This inference is discussed further below.

For women, completion of four-year college programs or of two-year private postsecondary programs significantly increased earnings, as it did for men. Unlike men, no positive effect was found for public two-year programs. Also unlike men, completion of a government-sponsored training program was associated with significantly lower earnings, apparently the same reflection of screening criteria for the training programs as was found for earnings on the most recent job.

The most interesting finding for women is the large positive effect associated with completion of employer-sponsored formal training programs. These programs were most likely given after the start of employment on this first regular job. The positive effect on earnings most probably indicates that the type of employer that will sponsor training programs for its employees is likely also to pay high starting wages in order to attract the best possible candidates for training. The absence of the effect from the men's equations suggests also that it may be a reflection of the "mentor" concept that has been discussed recently in the career development literature.

Clearly there is room for indirect effects of vocational education to operate through postsecondary education. The principal job characteristic for which the YAW survey has data and that is relevant to the starting wage for the first job is the indicator of whether wage rates on the job are set through collective bargaining. That variable has a large and highly significant coefficient for men. It is positive but not quite significant for women. Indirect effects of vocational education may also operate through this variable. That possibility is considered in more detail below.

One would expect that a sharper identification of the high school vocational education experience would exhibit a greater effect on the first full-time job than it did for the most recent job. The evidence from the YAW survey did not support that expectation. As with the most recent job, the indicators of receipt of a certificate from, or use of skills learned in, a high school vocational program did not contribute significantly, either additively or when interacted with curriculum variables, to explaining earnings. Only the respondent's report of receiving teacher assistance in finding a job is important here, and it matters only for men. The negative coefficient suggests that the least able students are most likely to receive teacher assistance or to be guided with such assistance into immediate employment after high school.

Among people with exactly twelve years of education, variations in earnings on their first full-time job are difficult to explain with the information that is available in the YAW survey. This earnings variable was likely to have considerably more measurement error than did the earnings variable for the most recent job. That error may account for the lack of systematic variance in the first job earnings variable.

Earnings Growth

For the YAW data set, earnings data that were collected at four points in each respondent's work history permitted calculation of the annual rates of increase in earnings for three situations: within the first job, within the most recent job, and over the career span from the start of the first job to the interview date or the date the respondents left their most recent job. The same problems that prevented identification of the first full-time job also prevented calculation from the NLS-LME and Class of '72 data sets of rates of earnings growth that were comparable to those reported in the YAW data set.

Tables 4.29 and 4.30 present the regression estimates for these three measures of earnings growth for men and women. Adjustment of earnings figures to constant 1980 dollars produced negative earnings growth if, as one might expect, retrospective reporting of earnings on the first job was biased toward giving

the same answer for starting and ending wage on that job. For both men and women the mean annual earnings growth within the first job was negative, and that result was probably a product of that sort of bias. For men, only rural residence and the length of time spent on the job were statistically significant, and they increase earnings growth. Time on the job was also significant for women, again with a positive effect. Also significant for women were SES, completion of a four-year degree (which was associated with slower earnings growth), and completion of an advanced degree (which was associated with faster earnings growth). Vocational program area indicators did not significantly contribute for either men or women, though in the men's equation all four of the estimated coefficients for program areas were positive. It would appear that vocational education is weakly associated with faster earnings growth in the first job for men, but the evidence is not conclusive.

Earnings growth within the most recent job appeared to be largely a random process, or at least a process that was not well explained by any of the personal, curriculum, job characteristics, or postsecondary variables that were available in the YAW data set. Only RACE had a significant coefficient for men, and further investigation showed that its large effect on growth was attributable to systematically lower starting earnings for minority men on the most recent job. For women, RACE had a significantly negative effect on earnings growth without any indication that minority women had lower starting earnings. This result suggests that nonwhite men and women have quite different types of experiences with earnings growth. None of the curriculum variables contributed significantly to explaining earnings growth for men or women, and even the estimated directions of effect showed no clear pattern. Besides RACE, only completion of military training and completion of a two-year public college or technical school program contributed significantly to explaining earnings growth for women within the most recent job.

The annual rate of growth in earnings between the date of interview (or of leaving the most recent job) and the date of starting the first job showed slightly more systematic variation than did earnings growth within either job. For men, completion of an apprenticeship program and having wages determined in collective bargaining on the most recent job were associated significantly with higher annual rates of earnings growth. Completion of either a two-year public postsecondary or a four-year college program was associated with lower growth. TRADE and MARKET program areas were associated with higher growth, whereas BSNS and OTHER vocational programs were associated with lower growth. None of the program coefficients, however, was statistically significantly different from zero. For women, being minority or completing a private two-year postsecondary program was significantly associated with lower career earnings growth. Completing a military training program was associated with

higher earnings. Among the vocational program variables, BSNS, TRADE, and OTHER programs were associated with higher growth, whereas, MARKET was associated with lower growth. Only the TRADE coefficient was significantly different from zero.

Summary

The analysis of earnings data for the YAW and Class of '72 surveys shows that effects of vocational education on earnings extend beyond the immediate post-high school period. The effects vary across program area and by gender. For the most recent job for men, there is strong evidence that MARKET is associated with higher earnings compared to general curriculum graduates. TRADE programs appear to increase earnings, but the evidence is not as strong as for MARKET. BSNS programs (which include some occupations that are traditionally held by women) and a composite of health, home economics, and agriculture programs are associated with lower earnings for men. For women TRADE and BSNS programs tend to be associated with higher earnings when the comparison is restricted to respondents who have had no college education. MARKET is associated with lower earnings for that same group of women. Postsecondary vocational education is associated with higher earnings for both men and women.

According to data from the YAW survey, any systematic variation in earnings on the first full-time job is determined primarily by education level. Vocational education does not seem to differ from general curriculum in its effects on earnings on the first full-time job. When the comparison is restricted to people without college, neither high school curriculum nor personal attributes contribute to explaining earnings. Some weak evidence exists that earnings growth within the first full-time job is positively affected by vocational education. Nevertheless, there seems to be no relationship between participation in vocational education and earnings growth within the most recent job or over the early part of a respondent's working career.

CHAPTER V

LABOR MARKET EFFECTS: EMPLOYMENT

Employment effects include unemployment, training-related employment, the types of jobs people work at, characteristics of the jobs, and the work history of the respondents. These outcomes are of interest not only in themselves but also because they provide channels for indirect outcomes of vocational education on earnings.

Unemployment

These two measures of unemployment were available in the YAW survey: one from the labor force status at the time of the interview, and the other from the number of weeks respondent had been unemployed in the two years preceding the interview. Similar measures were obtained for the Class of '72 and NLS-LME surveys.

Table 5.1 shows that at the time of the interview former college prep students were the least likely (5.7 percent) and general curriculum students were the most likely (10.1 percent) to be unemployed. The unemployment rate of former vocational students fell between that of the other groups but was not significantly different from either. For the Class of '72 data, there was no significant difference in unemployment rates for vocational and general students.

In the YAW data, only for minority men was the average number of weeks unemployed in the past two years greater for former vocational than for former general students, but the measurement was imprecise because there were few minority men. For white men the difference was statistically significant, with general students experiencing on the average 1.7 weeks of unemployment for each week experienced by vocational students as revealed in table 5.2. For women there were no appreciable differences in that average between vocational and general students.

A linear probability model for explaining being unemployed at the time of the survey and a regression model of weeks unemployed cast additional light on the relationship between curriculum and unemployment. Estimates are shown in table 5.3. For men in the YAW data set, when the effects of personal characteristics and postsecondary attainment were controlled, both a

vocational business program and college prep curriculum were significantly associated with less unemployment at the time of the survey than for general curriculum students. Participation in any of the other vocational programs was also associated with less unemployment, but the coefficients were not significant. For women, none of the coefficients was significant.

For both the YAW data and the NLS-LME data, in the regression analyses of weeks unemployed in the past two years, the curriculum variables were not significant for either men or women when personal characteristics and postsecondary attainment were controlled. Estimates are shown in Table 5.4, 5.5, and 5.6.

In the YAW data only race and postsecondary attainment contributed significantly. The Class of '72 data exhibited effects (some positive and others negative) for vocational education, but no consistent pattern emerged. These findings are not conclusive, but they do suggest that male former vocational students may experience less unemployment than do former general curriculum students and that the effect is indirect, operating through postsecondary attainment.

Training-Related Employment

Respondents in the YAW survey were asked to rate on a four point scale from "a great deal" to "not at all" the degree to which they used the occupational skills they learned in high school on their first job and, separately, on their most recent job. The Class of '72 survey posed a similar "yes/no" question. The question is strictly appropriate only for former vocational students, though in the YAW survey it was asked of all respondents. Only vocational students are considered in this section for either the YAW or the Class of '72 data. Similar data were not readily available from the NLS-LME survey. All comparisons are made with the OTHER vocational program category, not the general curriculum category as for most of this report.

The distribution of responses in the YAW data was similar for both jobs, as shown in table 5.7. About 60 percent of respondents used their skills either "a great deal" or "a fair amount." Women were more likely than men (70 percent to 50 percent) to give those responses. Similarly, business and office program students, who are mostly women, were more likely to use their skills than were trade and industry program students, who are mostly men.

When the four-point scale was used as the dependent variable in a regression analysis, the factors that were correlated in the YAW data with use of skills were quite similar both for men and for women and, with some understandable exceptions, for both first and most recent job. Women who took business programs were significantly more likely to use their skills on the first job in

both the YAW and Class of '72 surveys. The Class of '72 data showed a strong tendency for male BSNS students to be less likely to be in training-related employment. Men who completed two-year public college programs were more likely in the YAW data to use their high school skills on either job. Men who took trade programs were more likely to use the skills on their first job but not on their most recent job. Men and women who took postsecondary training associated with specific jobs were more likely to be using their high school skills on their most recent job. For men, apprenticeship training had that effect; for women it was employer-sponsored formal training. The mentor concept appears to be relevant in women's selection of the type of work they do, as it was found relevant to the earnings on the job.

Satisfaction with high school curriculum, willingness to repeat the high school curriculum, the receipt of teacher assistance in finding a job, and instruction in job-hunting skills were all positively correlated with use of skills on the job for both men and women and for both first and most recent job. These results suggest that a more thorough and satisfying vocational program is more likely to be associated with a training-related job, especially if it leads to postsecondary vocational, apprenticeship, or employer-sponsored training. Estmates for the YAW data are given in tables 5.8 through 5.11. Tables 5.12 and 5.13 contain the estimates for the Class of 72.

Job Characteristics

Occupational Classifications

Occupational classifications were defined in the YAW survey to conform to the three-digit U.S. Census occupation codes. When prestige of the job was analyzed, the Duncan prestige scores were assigned using those codes. All of the analyses that are reported here were based on the standard aggregation of the three-digit codes into classes such as "professional" or "laborer." It is well known that generalizations based on such broad aggregations must be weak. Nevertheless, a general picture of the relationship between vocational training and occupations can be drawn here. The distribution in the YAW survey of respondents among occupational categories is shown in tables 5.14 through 5.17.

Former vocational students were concentrated in three occupational classes. More than 51 percent of vocationally educated men were employed in craft or operative jobs; about 54 to 60 percent of vocationally educated women were employed in clerical jobs. Most vocationally educated men in craft and operative jobs specialized in the trade and industry area, and most vocationally

educated women in clerical positions were in the business area in high school. Business and trade students held professional or managerial jobs in about the same proportions as their representation in the sample.

There are too few minority respondents to make any confident generalizations about their distribution among occupations. However, all men and women did show interesting patterns when former vocational and general students were compared. For both first and most recent jobs, a larger percentage of male vocational students than of male general students was in one higher prestige category, craft jobs, and in one lower prestige category, service jobs. Even when personal attributes and postsecondary attainment were controlled in linear probability models, specialization in trade was significantly associated with a greater likelihood of being in craft jobs, for both first and most recent jobs for men, but only for first job for women. Having taken a business curriculum was a strong indicator for women of not being in craft positions.

Having taken a business program was associated with a higher likelihood for men and much lower likelihood for women of being in a service position on the first full-time job. For men high school vocational programs were not closely related to being in service positions on the most recent job, but completion of either a two-year public postsecondary program or an employer-sponsored formal training program was so associated. Women who took trade courses showed a higher likelihood of being in service positions on their first job.

The data showed not only that vocational students were more than proportionately represented among the highest level of blue-collar jobs, but also that a significant percentage seem to follow a standard progression in job advancement, from laborer or operative positions on their first job to craft positions on their most recent job. About 51 percent of male vocational students were in craft or operative jobs on both the first and most recent jobs, but 5 percent more were in craft positions and 6 percent fewer in operative positions in the most recent job than in the first job.

Vocationally educated men were less than proportionately represented on the most recent job, compared with general curriculum men, in the higher white-collar occupations (professional and managerial). However, vocational students tend to move into higher white-collar jobs as they progress in their careers from first to later jobs. Among men the percentage in professional and man- agerial jobs rose from 7.5 and 5.1, respectively, to 8.9 and 10.6. For women the corresponding figures were from 6.1 and 2.9 percent to 10.1 and 9.4 percent. This pattern of flow toward higher-level jobs and away from lower-level jobs is quite similar to that exhibited by general curriculum students.

As their careers progress, vocationally educated youth, like general curriculum youth, tend to move out of lower-level blue-collar positions as operatives and laborers. For men, the percentage of former vocational students in operative or laborer jobs dropped from 30 percent in the first full-time job to 21 percent on the most recent job. For women the percentage also fell, but less dramatically, from 9.3 to 7.8 percent.

When postsecondary attainment and personal attributes were controlled, for both men and women completion of four-year college or advanced degree programs dominated entry into professional jobs, especially as first full-time jobs. Those postsecondary programs also dominated most recent job, but not so completely. For vocational education programs in high school, only women in health or agriculture were somewhat more likely than general curriculum students to be in professional positions in their first job.

For managerial jobs, completion of a college program was much less important. It was still a significant determinant for men, but it was not nearly as dominant as it was for professional jobs. For women, it was only marginally significant and then only for first job. The important determinant for women for the most recent job was employer-sponsored training, a finding which again highlights the mentoring concept. Enrollment in either a business or marketing program was for men the most highly significant single factor increasing the likelihood of being in managerial positions on either the first or most recent job, and its relative importance was greater on the most recent job. High school vocational programs did not contribute significantly for women. Business and marketing programs had positive (but not significant) coefficients for women on the most recent job. It would appear, therefore, that business and marketing programs in vocational education are significant factors leading students either to start their careers in managerial positions or to move into managerial positions as their careers progress.

Vocational programs were also strongly associated for both men and women with not working in operative jobs, when personal attributes and postsecondary attainment were controlled. Programs for business, trade, and the combined category of health, agriculture, and other were all strongly associated for men with not being in laborer jobs. (Too few women were in laborer jobs to say anything about that occupation.)

When personal attributes and postsecondary attainment were controlled, vocational education programs had the anticipated marginal effects on the likelihood of being in clerical, sales, and farm jobs. Marketing was the strongest single indicator for women being in a sales position, either on the first or most recent job. A business program was an even stronger indicator for women in clerical jobs. Business and marketing programs had

positive (but not significant) coefficients for men in clerical positions. Trade programs for both men and women and other vocational programs were strong contraindicators for clerical work. And, of course, training in an agriculture program was significantly associated with work in farming (for men only, as there were almost no women in the sample in farming occupations).

Occupational Prestige

Occupational prestige is measured by the score from the Duncan prestige index that applies to the three-digit census occupation of the respondent. Scores for the index range from 0 to 100. The mean scores for men in the YAW data set were about 36 on the first full-time job and 41 on the most recent job. The average score for professional jobs was 52, for craft jobs 40, for labor jobs 19. Personal attributes and college education are so closely related to occupational prestige that a regression analysis, with the Duncan score as the dependent variable, was needed to control all of the factors that influence prestige and to permit an estimate of any direct and independent effect attributable to vocational education. This analysis was restricted to the YAW sample.

For men, SES and a college prep curriculum were both significantly associated with higher prestige only when college graduates were included in the subsample. In that case, both a college prep curriculum and completion of four-year college programs were associated with higher prestige. On the first full-time job, when college graduates were kept in the subsample, all vocational programs except MARKET were significantly associated with higher prestige (between 3 and 5 points or one- fourth to one-half the distance between craft and professional jobs). When college graduates were excluded, the TRADE and combined OTHER programs continued to show significant association with higher prestige. It would appear that vocational programs other than BSNS or MARKET help men to find entry-level jobs that are generally of higher prestige than the typical entry level for general curriculum students.

A very different relationship appeared for men for the most recent job. Regardless of whether college graduates were included in the comparison, vocational program variables had insignificant (but positive) coefficients. These results suggest that men with some types of vocational education enjoy a prestige advantage over general curriculum students on their first full-time jobs, but the advantage disappears as people move on in their careers.

Women who took a business program enjoyed a significant advantage in both the first and most recent jobs. This result

held whether or not the comparison groups included college graduates.

Women who took trade programs, on the other hand, experienced a significant disadvantage in prestige on both jobs. Jobs obtained by students who took trade programs were likely to involve above average prestige for men and below average prestige for women. Any prestige advantage or disadvantage that existed for vocationally education men tended to narrow as more labor market experience was gained. In contrast, the differences (either positive or negative) tended to be maintained for women. Furthermore, a regression analysis of change in Duncan score between first and most recent job suggests, for women, that (both positive and negative) differences in prestige associated with vocational education grow in absolute value over time.

Self-Employment

The longer a person is in the labor market the more likely the individual is to become self-employed. On the first full-time job only about 2.5 percent of respondents were self-employed. On the most recent job the percentage of respondents who were self-employed was more than twice as great, 5.4 percent. Estimates are shown in tables 5.18, 5.19 and 5.20.

Former college prep students were more likely to be self-employed on either the first or the most recent job than were either vocational or general students. Vocational students were less likely than general students to be self-employed on the first full-time job, but they were slightly more likely than general students to be self-employed on the most recent job. Among vocational students, the most likely program areas to produce self-employment in the first full-time job were agriculture and health. On the most recent job, besides those categories, former trade program students also tended to be more frequently self-employed. It would appear that secondary vocational education trains students in at least one field--agriculture-- in which the nature of the work is more likely to lead to self-employment. It also seems to develop skills that eventually lead to self-employment for at least some trade and industry students.

This tendency is only weakly supported by a simple linear probability model that controls for personal attributes and postsecondary attainment. For men in the YAW sample, TRADE programs were significantly associated with a lower percentage and the combined OTHER program category (which includes agriculture and health) with a higher percentage of self-employed respondents on the first full-time job. On the most recent job, however, the tendency apparent in the tables for trade students to be more often self-employed did not hold when personal and postsecondary

variables were included. For the Class of '72 sample for men, TRADE was associated with a lower likelihood of being self-employed. For women, the combined OTHER category of vocational programs was associated with more self-employment on the first job, and TRADE programs with more self-employment on the most recent job. Completion of a private postsecondary two-year college program was also significantly related to greater self-employment for women. Hence, vocational education is associated with a greater shift of people into self-employment between the first and most recent jobs, although, when personal and postsecondary conditions are controlled, the level of self-employment is still lower for vocational than for general students.

Wage Rates Set by Collective Bargaining

Patterns in the distribution of unionized jobs by curriculum are difficult to identify. Without controlling for other factors, former vocational students in the YAW sample were slightly less likely and general students were slightly more likely to be in unionized jobs on either their first or most recent job. For men there was no substantial difference between vocational and general students. The difference overall was attributable to the fact that women vocational students were less likely to be in unionized jobs than women general students. The data are shown in table 5.21.

Despite the similar overall unionization patterns for first job and most recent job, a linear probability model for the YAW data set showed that the factors that were correlated with being in a unionized job differed between men and women, and for men, differed between first and most recent job. The estimates are shown in table 5.22.

The similarity in unionization between male vocational and general students appeared from the simple cross-tabulation and did not hold up when a linear probability model was used. However, no clear conclusions emerge. For men, among vocational program areas, business was significantly positively related to unionization in both jobs, and its estimated marginal effect was very nearly the same for both jobs. Marketing also showed up significantly for the most recent job, but its coefficient was negative. The NLS-HSB data set showed in table 5.23 a positive effect for nonbusiness vocational education. Thus, the results were mixed and uncertain.

For women, the factors that were correlated with unionization were much the same for the first and the most recent job. Enrollment in a business curriculum in high school significantly reduced the likelihood of being in unionized jobs. Completing advanced degrees increased the likelihood of being in such jobs, probably through the effect of teachers' unions. On the most

recent job, two factors contributed significantly to a lower likelihood of being in a unionized job: a college prep curriculum (the effect was in addition to those of four-year college and advanced degree programs) and completion of a two-year private postsecondary program.

Job Tenure

For men in the YAW data set, vocational education did not seem to be related to tenure on either the first job or the most recent job when personal attributes and postsecondary attainment were controlled. With the same controls for women, however, business and trade programs were associated, respectively, with eight and thirteen months longer tenure on the most recent job. On the first job, a college prep curriculum was associated with longer tenure, but a business curriculum was associated with longer tenure only when postsecondary attainment was not controlled. The mentor concept appears to be relevant in the case of job tenure because completion of employer-sponsored formal training is associated with about ten months longer tenure for women on their most recent job. The estimates are given in tables 5.24 and 5.25. For the Class of '72 data, there appear to be strong relationships between tenure and vocational education. However, the large negative coefficients on postsecondary variables suggest that these coefficients reflect length of schooling and labor force experience at least as much as any true effect of curriculum on tenure.

Hours Worked Per Week

The subsamples of all three data sets that were analyzed here were restricted to those respondents who worked at least twenty hours per week. Within that restriction, it was possible within the YAW data to explain relatively more of the variance among men in hours worked for the first job than for the most recent job. On the most recent job, only 2 percent of the variance was explained by personal attributes, high school curriculum, and postsecondary attainment; employer-sponsored formal training was the only variable that even approached significance. In contrast, when the first job was considered, between 5 percent and 7 percent of the variance could be explained (depending on the choice among the ALL, NO4COL, and NOCOL subsamples). In the NOCOL subsample, which provided the clearest comparison between vocational and general students, both college prep and business curricula were significantly associated with about four or five fewer hours worked per week. Hence, any positive effect on weekly earnings for male vocational students in their first job was not the result of longer working hours. Estimates are given in table 5.26.

For women, variation in hours worked was not very well explained for either job. For instance, it was found that on the most recent job married women tended to work fewer hours whereas women who had completed two-year private postsecondary programs tended to work more hours. High school curriculum did not contribute to explaining hours worked on the most recent job. On the first job, within the NOCOL subsample, only the combined category of other vocational programs made a significant contribution.

No pattern seems to exist that aids in understanding the report of hours worked per week in any of the data sets. High school curriculum does not appear to contribute in any systematic way to explaining that variable for either men or women. Estimates for the Class of '72 data are given in table 5.27, for the NLS-IME in table 5.28.

Work History

Number of Full-Time Jobs

The typical YAW respondent had held two or three regular full-time jobs between high school graduation and the date of interview. The mean number of such jobs was about 2.7, and it was the same for both men and women. The number of full time jobs is not unambiguously interpretable. More jobs may indicate either instability in employment or rapid advancement. Hence, the ALL respondent sample was split into three groups according to whether, between first and most recent job, the respondent showed an increase, a decrease, or no change in their Duncan prestige score. Estimates of the effects of vocational education on the number of jobs are presented separately for upwardly and downwardly mobile respondents in table 5.29. Vocational education was associated with opposite effects for men and women on this measure of job stability. For women, vocational education tended to be positively related to the number of jobs among the downwardly mobile, negatively related among the upwardly mobile. These estimates suggest that vocational education may be associated with greater instability among the downwardly mobile women and less rapid turnover among the upwardly mobile. For men, vocational education is associated with greater job stability among the downwardly mobile, but it is not significantly related to frequent job changes among the upwardly mobile.

Work Experience

The work experience variable that was used in the YAW analysis is more appropriate for men than for women because it

assumes full and continuing participation in the labor force from the time the respondents stop their schooling. It was calculated by subtracting from age the number of years of schooling the respondent reported. The possible distortion for women is mitigated by two considerations. First, the sample is restricted to labor force participants at the time of the interview. Second, the trend toward increased labor force participation by women reduces the error involved in assuming (in effect) that labor force participants at the time of the interview have been full and continuing participants since they left school.

The outcome variable is of interest here only because it provides a possible channel for indirect effects of vocational education on earnings. For men, a marketing curriculum was significantly associated with more work experience, as measured here. For women, a marketing curriculum was associated with less work experience; a business curriculum, with more work experience. Considering that work experience was usually associated with higher earnings in the results discussed above, vocational education would seem to have an indirect positive effect on earnings through work experience. The effect would act to raise earnings for men in marketing and for women in business and to lower them for women in marketing. As was pointed out in the earlier discussion of earnings, men and women in a marketing curriculum appear to move in opposite directions, with men realizing higher earnings (and women lower earnings), as opposed to their counterparts from a general curriculum. These indirect effects reinforce those direct effects (discussed previously) that were possibly related to sex stereotyping in employment and, possibly, in participation in vocational education programs.

Months on the Longest Job

Another measure of employment stability is the duration of the job held longest by the respondent. This outcome variable is shown in table 5.30 to be linked closely to the amount of labor market experience. Experience was highly significant for both men and women in explaining this variable. Indeed, experience was the only significant explanatory variable for men. High school curriculum, postsecondary attainment, and other personal attributes did not contribute. The behavior of women was more closely related to these other categories of influence. In addition to experience, SES, apprenticeship training, private two-year college, and OTHER vocational curricula contributed significantly. Higher scores on the SES scale were associated with fewer months on the longest job (probably because higher SES women were likely to leave or reenter the labor force more often). The other variables were associated with more months. When postsecondary attainment was not controlled, the business

curriculum indicator was significantly related to more months. It would appear that at least two categories of vocational education make minor contributions to greater job stability for women.

Summary

The YAW data showed that all vocational programs were associated for men with a lower likelihood of being unemployed at the time of the survey, but only for a business program was the association strictly significant. There was no consistent pattern of effect among women in the likelihood of being unemployed at the time of the survey. When personal characteristics and postsecondary attainment were controlled, there was no direct effect for either men or women from vocational education on the weeks of unemployment experienced during the past two years. The percentage of vocational students who reported a substantial or fair amount of use of skills learned in high school was relatively high, about 60 percent. Women in business programs and men in trade programs were more likely than other vocational students to find training-related employment on their first job. More thorough programs that included training in job-hunting skills and teacher assistance in finding work increased the likelihood that students would work in training-related positions on their first job. That link between more intensive high school vocational programs and greater use of skills did not extend to the most recent job. However, completion of postsecondary vocational or technical programs was associated with greater use of skills on both jobs. Vocational programs tended to be associated with employment in the types of occupations one would expect, such as agriculture in farming; marketing in sales or clerical jobs; business in managerial or clerical jobs; and trade and industry in craft or operative jobs. On the most recent job, vocationally educated men were less likely than general students to be in white-collar positions, but more likely to be in craft or service jobs. However, students from vocational training were no less likely than those from general training to exhibit patterns of career advancement from operative to craft jobs, out of laborer and service jobs, into managerial and technical jobs.

For men on the first job, all vocational programs except marketing were significantly associated with Duncan prestige scores of between three and five points more than those for general curriculum students. For the most recent job, the positive association continued but was no longer statistically significant. For women on both jobs, business programs were associated with significantly higher scores, and trade, with significantly lower scores.

Vocational students were less likely than general or college prep students to be self-employed on either job, but a larger percentage of vocational students moved into self-employment between the first and most recent jobs. Patterns for unionization, job tenure, work experience, tenure on the longest job, and hours worked per week were not sharply defined, except that men from a business program tended to work four to five hours per week less than other students.

If career stability is defined in terms of the number of full-time jobs, male vocational students who were downwardly mobile (in terms of Duncan score) between first and most recent jobs tended to show greater stability than other downwardly mobile respondents. Female vocational students tended to exhibit less stability among downwardly mobile respondents and more stability among upwardly mobile respondents than did general curriculum students.

CHAPTER VI
EDUCATION-RELATED EFFECTS

The education-related effects of secondary education in the YAW survey were of two types: satisfaction with high school training and attainment of additional training beyond the secondary level. One of the objectives of this study was to determine how younger adult workers evaluate their high school preparation for subsequent careers. Therefore, the subjects were asked to respond to questions concerning their satisfaction with high school preparation and whether they would remain in the same program if they could choose over again. In the Class of '72 survey, respondents were asked to rate their satisfaction with their vocational instruction. In the NLS survey, a satisfaction variable was included in the 1966 wave for men and the 1968 wave for women. Because many of the respondents were still in secondary school at this time, the decision was made not to use the NLS data to examine this question.

An additional concern of this study was to determine the extent of additional training beyond high school that the subjects received. This is particularly important when assessing the long term effects of vocational education because participation in postsecondary education confounds the effects of secondary education. In addition, the 1976 vocational education amendments specifically state that pursuit of additional education or training should not be considered negatively in the evaluation of secondary programs (Sec 112 (b) (1)). Questions concerning training in the YAW survey included participation in postsecondary programs, the length of training, completion of the program, attainment of certificates or degrees, and use of skills on the job. Parallel measures for the NLS and Class of '72 cohorts are included when they are available.

Satisfaction with High School Preparation

Adequacy of Preparation

In the YAW survey, the first measure of satisfaction with the high school program required the subjects to rate the adequacy of their preparation to get a job, using a four-point scale: 4--very well, 3--fairly well, 2--not too well, and 1--not

well at all. The vocational completers reported the highest degree of satisfaction with their job preparedness; they were followed by college prep and general education participants (table 6.1). In rank order, from most to least satisfied, the vocational program areas were marketing, business, trade and industry, home economics, agriculture, health, and other (table 6.2).

The stronger satisfaction with job preparedness for vocational students is further supported by the results of regression analyses presented in tables 6.3 and 6.4. In the reduced-form equation and in the equation with postsecondary variables, the business, trade, and marketing groups rated their level of satisfaction as significantly better than that of the general group for both men and women.

This pattern varied somewhat when variables concerned with the degree of participation in job-related courses, extent of occupational skills used on the job, teacher assistance in job placement, and job-seeking skills learned in high school are included in the equation. Clearly, the positive correlation between these variables and enrollment in a vocational curriculum reduce the independent effect of the vocational program areas. Greater participation in job-related courses, more extensive use of occupational skills, assistance from teachers in job placement, and learning job-seeking skills are all associated with greater satisfaction with job preparation in high school.

The Class of '72 respondents rated their satisfaction with their vocational instruction using the following scale: 4--excellent, 3--good, 2--fair, and 1--poor. As can be seen in Table 6.5, the results of the ratings of the vocational instruction were similar to those for the YAW sample; that is, vocational graduates expressed the highest degree of satisfaction. Although the questions in the two surveys were worded differently, these results support the hypothesis that vocational graduates are more satisfied with their high school training, particularly as it relates to job preparation.

Repeat High School Curriculum

The second measure of satisfaction in the YAW survey asked the subjects to respond to the following question: "Knowing what you know now, if you were in high school again would you enroll in a vocational or business/office program, or enroll in a college preparatory or a general program?" Table 6.6 presents the percentage of respondents who would repeat their high school curriculum. Vocational completers were more likely than general completers to indicate that they would remain in the same curriculum; however, they were less likely than college prep completers to so indicate. The rank order by vocational program are

from high to low was as follows: agriculture, health, trades and industry, home economics, marketing, and business (table 6.7).

The results of regression analyses indicate a consistently significant difference between male vocational completers in trade, business, and other vocational program areas as compared to their general peers (table 6.8). For females, the significant difference appeared for all of the vocational program areas (table 6.9). Thus, the vocational completers overall were more likely than their general peers to indicate that they would repeat their high school curriculum again, even knowing what they know now.

Additional Training Beyond High School

In the YAW survey, subjects were asked to recall the amount of time they spent in additional schooling or military training during which they were not employed in a full-time regular job. They were also questioned about their participation in a number of different types of postsecondary training, including apprenticeship, employer-sponsored training, proprietary vocational school, advanced degree programs, public community college or technical institutes, and government- sponsored training like CETA and Job Corps. They were asked how much time they spent in the program, whether they completed it, if they received a certificate upon completion, and if they used the skills they learned on the job. Where results on parallel measures are available for the Class of '72 and NLS cohorts, they are reported.

The results of the YAW survey indicated that college prep participants reported spending the most time in additional schooling or military training while they were not employed (table 6.10). The results by vocational program area are presented in table 6.11.

In the NLS Boys and Girls surveys, the respondents were asked to specify the highest grade completed in formal schooling. This question was different from the YAW because the YAW asked for the number of years of additional schooling or military training obtained while not employed in a full-time job. Nevertheless, the pattern in terms of attainment of schooling was the same across data bases. In the NLS Girls data base, the rank order of curriculum from highest to lowest for the highest grade completed was college prep ($\bar{X}$ = 14.89), general ($\bar{X}$ = 13.05), vocational-business ($\bar{X}$ = 12.46), and other vocational ($\bar{X}$ = 12.43). The corresponding results for NLS Boys were: college prep ($\bar{X}$ = 15.46), general ($\bar{X}$ = 13.00), vocational-business ($\bar{X}$ = 12.91), and other vocational ($\bar{X}$ = 12.66).

Traditional Postsecondary Education

The traditional postsecondary education institutions include public community colleges and technical institutes, proprietary vocational schools, four-year colleges and universities, and advanced degree programs.

Public two-year programs. The results of the YAW survey indicated that a higher percentage of secondary level vocational graduates reported participation in a business, trade or technical program in a public community college or technical institute than did their college prep or general peers (table 6.12). Participation was most likely by secondary marketing, trade and industry, and business graduates (table 6.13). For men, secondary-level marketing graduates reported participation in, completion of, and use of skills learned in their public postsecondary vocational program significantly more often than did their general peers (table 6.14). For men, being from a rural area had a significantly negative effect on participation. For women, none of the vocational program areas were significantly different from the general curriculum (table 6.15). Having a physical restriction had a significantly negative effect on participation for women.

In the Class of '72 data base, no distinction was made between public and private postsecondary vocational education. The cross-tabulations based on the Class of '72 data reveal similar patterns to the YAW data in that vocational graduates reported the most frequent participation (table 6.16). In addition, trade and business graduates most frequently reported participation. However, the percentage of health graduates who reported participation was comparatively higher for the Class of '72 group (this is probably due to the increased representation of health graduates in the Class of '72 data base). Regression analyses revealed that the coefficients for men and women that were significantly positive included those for the college prep and trade variables (table 6.17). The regression results of the Class of '72 data for this measure do not correspond to those found with YAW. This suggests that the results could be sample specific or that differences in the way the questions were worded account for the differences in results.

In the NLS Boys and Girls surveys, data were available concerning completion of a business college or technical institute, such as barber college or an electronics institute. They also asked a number of questions concerning professional, technical, managerial, clerical, sales, skilled manual, and semi-skilled manual training. Because the type of program in which this training was obtained was not specified, these variables are not discussed further. The concept of a business college or technical institute is different from the YAW "public vocational school"; however, the results based on that designation are

discussed below because they most closely parallel the YAW concept.

None of the NLS curriculum variables were significant predictors of completion of a business college o technical institute program (table 6.18). This could be attributed to the aggregation of the vocational program areas in the NLS data base into two categories: vocational/business (VBUS)and vocational/other (VOTHER). This aggregation in the NLS data base could obscure differences that were found in the YAW, such as the significantly greater participation of male marketing students in public vocational education. As was noted earlier, this could also be due to the differences in the wording of the questions across data bases.

Proprietary vocational school. Overall, participation and completion rates in a business, trade, or technical program in a private school or college were very similar across curriculum groups (table 6.19). Within vocational program areas, participation and completion were most likely for secondary-level health, trade and industry, and marketing graduates (table 6.20). For men, being in the other category was associated with a significantly negative effect on completion of a proprietary vocational school program (table 6.21). For women, the secondary-level trade and industry graduates reported significantly greater participation, completion, and use of skills than their general peers (table 6.22). Also for women, high SES was associated with significantly greater participation in a proprietary vocational program.

Four-year college or university. For the YAW survey, secondary-level vocational graduates were the least likely group to participate in or complete a four-year college or university program (table 6.23). Within vocational program areas, the agriculture, marketing, and health graduates were most likely to participate in such programs (table 6.24). The trade and industry vocational program area differed significantly from the general curriculum on all the measures of four-year college or university attendance (tables 6.25 and 6.26). In addition, significant predictors for both men and women on all the measures were high SES and participation in a college prep curriculum in high school. For women, rural residence had a significantly negative effect on participation in a four-year program. Also for women, being in the business or other categories was associated with significantly negative effects on completion of such programs.

With the Class of '72 data, secondary vocational graduates were again the least likely to participate in or complete a four-year college or university program (table 6.27). Marketing and health graduates were again the most likely of the vocational graduates to attend such institutions. The regression results

confirm the significantly positive influence of having been in a college prep curriculum on college completion (table 6.28). However, in the Class of '72 data, all of the vocational education program areas are associated with significantly negative coefficients.

Advanced degree. As would be expected from the data presented in the previous section, the YAW survey results revealed that college prep graduates were most likely to pursue an advanced degree--master's, doctorate, or professional degree (table 6.29). Within vocational program areas, the percentage of participation was very low; however, marketing and health graduates were the most likely to pursue such a degree (table 6.30). Neither male nor female vocational graduates differed from their general peers on any of the measures associated with the advanced degree (table 6.31 and 6.32). Again, high SES and participation in a college prep curriculum in high school were significant predictors for all the measures associated with an advanced degree. For women, physical restrictions had a significantly negative effect on participation in an advanced degree program.

The wording of the question in the Class of '72 survey concerning attainment of an advanced degree permitted identification only of those who had completed such degrees. Because the number of participants is unknown, the percentage of completers (as a percentage of participants) cannot be calculated. The frequency of respondents who completed an advanced degree was quite low for vocational graduates (n=9) and somewhat higher for general (n=71) and college prep graduates (n=467). The Class of '72 regression results confirmed the importance of the college prep curriculum. The regression results for the vocational variables should be viewed cautiously due to the small sample sizes (table 6.33).

Nontraditional Postsecondary Education

The nontraditional postsecondary educational experiences include apprenticeship, employer-sponsored training, government-sponsored training, and military training.

Apprenticeship. Based on the YAW data, vocational graduates were more likely than general graduates to participate in an apprenticeship training program (table 6.34). Within vocational program areas, trade and industry graduates were most likely to be involved in such programs (table 6.35).

For both men and women, being in the trade and industry group was associated with a significantly positive effect on participation and completion of apprenticeship training (tables 6.36 and 6.37). Significant predictors of participation and use

of skills for men were being in VBUS or VOTHER, and possession of a physical restriction. Also for men, a significantly negative effect was observed for residence in rural areas. For women, a significant predictor of apprenticeship training was participation in a college prep curriculum.

Cross-tabulations of the Class of '72 data indicated that overall vocational graduates were as likely as their peers to participate in an apprenticeship training program (table 6.38). However, the results of the regression analyses supported the finding that men and women from a trade program were most likely to complete apprenticeship training (table 6.39). In addition, the data indicate that the marketing coefficient for men is significantly positive.

Employer-sponsored training. Based on the YAW data, a higher percentage of vocational graduates than their general peers reported participation in an employer-sponsored formal training program that was not just on-the-job training (table 6.40). Within the vocational program areas, marketing and trade and industry graduates were most likely to report receiving such training (table 6.41). For men, completion of a secondary-level marketing or trade program was signficantly associated with greater participation in and completion of employer-sponsored training (table 6.42). For women, the marketing area was associated with greater completion of employer-sponsored training, and completion of a college prep curriculum was significantly associated with greater participation in and completion of such programs (table 6.43).

The Class of '72 analyses did not support the earlier positive relationship between completion of a vocational curriculum and employer-sponsored training (tables 6.44 and 6.45) Variables with significant positive coefficients included college prep for men and women and a negative coefficient on the rural variable for women.

The NLS survey included a question concerning the completion of a company training school program. The regression results from this question are presented in table 6.46. The coefficients for the vocational programs were not significant; however, the college prep coefficient for females was significantly positive. A number of the personal variables were significant predictors of completion of this type of program.

Government-sponsored training. Based on the YAW survey, the percentages for participation in government-sponsored training like CETA, Job Corps, and WIN were uniformly low across curriculum groups (table 6.47). Participation among the vocational program areas was most likely for home economics graduates (table 6.48). For men, completion of a college prep curriculum was significantly negatively associated with government-sponsored

training (table 6.49). For women, being in the OTHER vocational group was a significantly negative predictor of participation in government-sponsored training (table 6.50). Being married and having completed a college prep curriculum were negatively associated with government-sponsored training, whereas being white and from a high SES were positively associated with such training.

The low percentage of participation in government-sponsored training was confirmed by the Class of '72 results (table 6.51) In addition, the significantly negative effect of having completed a college prep curriculum was found for both men and women (table 6.52). As was also found with the YAW sample, being nonwhite had a significantly positive coefficient for women. The significant predictors across data bases of completion of government-sponsored training appeared to be fairly similar across data sets.

Military training. Based on the YAW survey, the percentage of persons reporting participation in military training that was related to civilian occupations was uniformly low across curricula (approximately 8 percent) (table 6.53). The vocational program area with the highest participation rate was trade and industry, which is due to the high concentration of males in that field (table 6.54). For men and women, none of the vocational program areas were significantly different for any of the measures associated with military training (table 6.55 and 6.56). A significantly positive association was found for men who were nonwhite. A significantly negative relationship was found between rural residence and all of the measures associated with military training. None of the predictor variables were significant for women.

The results of the Class of '72 analysis confirmed the low percentage of involvement with military training across curricula (table 6.57). In addition, the significantly negative effect of rural residence was confirmed (table 6.58). The Class of '72 results indicated a significantly positive effect for marketing graduates, however, this is based on a very small sample (n=12). Again, no significant predictors were found for women.

Summary

T[illegible]s of two measures in the YAW survey indicated that vocatic[illegible]ates are more satisfied with their high school curricu[illegible] their general peers. First, the vocational graduate[illegible] their satisfaction with the adequacy of their job preparatio[illegible] significantly higher than their peers. Results from the Class of '72 data base confirmed this finding. Second, the YAW vocational graduates were more likely than their general peers to indicate that they would repe[illegible] their high school

curriculum again, even knowing what they know now.

In terms of traditional postsecondary education, completion of a public postsecondary vocational program was positively associated with the marketing area for YAW men. For YAW women and for the NLS cohort none of the vocational curriculum variables were significant. For the Class of '72 cohort a significantly positive coefficient was found for the trade and college prep variables. Completion of a proprietry postsecondary vocational school was negatively associated with the OTHER vocational areas for YAW men and was positively associated with the trade area for women. College prep and high SES were positive predictors of completion of four years of college for the YAW sample. Significant negative predictors were the trade area for men and the business area for women. The YAW vocational areas were not significant predictors for completion of an advance degree; however, the college prep variable was significantly positive.

In terms of nontraditional postsecondary experiences, the YAW and Class of '72 trade areas were significantly positively associated with completion of apprenticeship training for both men and women. For YAW men, the marketing and trade areas were significantly positively associated with completion of employer-sponsored training. For women, the marketing and college prep variables were associated with completion of such training. The Class of '72 and NLS results did not confirm the positive findings for the vocational variables; however, they did confirm the positive findings for college prep. Completion of government-sponsored training was significantly negatively associated with the college prep variable for YAW and Class of '72, and with the OTHER vocational variables for YAW women. None of the YAW curriculum variables were significant predictors of military training.

CHAPTER VII

OCCUPATIONAL AND EDUCATIONAL ASPIRATIONS

The YAW respondents were asked about their occupational and educational plans for the future. Specifically, they were asked if they planned to be in the same job five years from the time of the survey. If they responded that they planned to change jobs, they were then asked about the type of job they expected to have. The Class of '72 and NLS Boys cohorts were asked to specify the type of work they planned to be doing at age 30; while the NLS Girls cohort was asked to specify the type of work they would be doing at age 35. The YAW and Class of '72 cohorts were asked if they planned to pursue additional education in order to obtain specified jobs. The YAW cohort was then asked to specify the type of aspired schooling and to estimate the number of years of additional education that were desired. The questions concerning educational aspirations in the NLS data base are not directly comparable to those in the YAW survey; therefore, they are not discussed further in this report.

Occupational Aspirations

About two-thirds of the YAW sample expected to be in the same kind of job five years from the survey date. Overall, vocational graduates were more likely to express this expectation than their general peers (table 7.1). Agricultural graduates were most likely to expect to be in the same kind of job; they were followed by trade and business gradyates (table 7.2).

Regression analyses by sex revealed a different pattern of expectations for men than for women. For men, significantly positive coefficients were found for business and trade graduates, as well as for the tenure on this job and current wage variables (table 7.3). Also significantly negative coefficients were associated with being nonwhite. When postsecondary effects were considered, completion of four years of college was significantly positively associated with being in the same job, and government-sponsored training was significantly negatively associated with the dependent variable. For men, the characteristics associated with an expectation of having the same kind of job in five years include being white, having longer tenure on the job, higher pay, a college education, and graduating from high school in a business or trade curriculum.

additional schooling or training in order to obtain the new job. The percentage of persons in the YAW cohort who expressed a need for additional schooling or training were 68 percent for vocational, 64 percent for college prep, and 58 percent for general graduates. The corresponding percentages for the Class of '72 cohort were 49 percent for vocational, 60 percent for college prep, and 53 percent for general graduates. When the results of regression analyses for men in the YAW and Class of '72 studies are compared, only two variables have significant coefficients in the same direction in both equations (tables 7.8 and 7.9). These are the college prep and government-sponsored training varibles. The trade variable is significantly positive for the YAW cohort, and the OTHER variable is significantly negative for the Class of '72 cohort. The only variable that is significant in the same direction for women in both equations is the minority indicator. The only significant coefficient for the vocational variables for either equation was a negative coefficient for business for the Class of '72 cohort.

The explanation of the need for additional education is clearly not a simple matter. The much larger sample size of the Class of '72 cohort as compared to YAW cohort, influenced the number of variables that were associated with a significant difference. Interestingly, almost all of the postsecondary variables in the Class of '72 equations were significantly positive. This suggests that those who have had any type of postsecondary education experience are interested in obtaining more.

Type of Aspired Training

The YAW respondents who indicated a need for additional training were asked to specify the type of training they thought they would need. The results are presented in table 7.10. For vocational and general graduates, the most frequently mentioned type of education aspired to was the bachelor's degree. The second most frequent response for vocational and general graduates was trade school, followed by graduate school. The educational aspirations for college prep graduates centered primarily on the bachelor's degree and graduate school.

For white males, the most frequent responses were trade school (21 percent), four-year college (25 percent), or graduate school (19 percent). For minority men, the most frequent response was trade school (35 percent), four year college (12 percent), and marketing training (12 percent). Graduate school (25 percent and 19 percent, respectively) and four-year college (30 percent and 26 percent, respectively) were the most frequent responses for white and minority females.

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Length of Training

The respondents who were currently working were asked to estimate the length of time they would actually spend going to school or going through some additional training in the next five years. Overall, vocational graduates aspired to less additional education than their peers (tables 7.11 and 7.12). However, male vocational graduates from a marketing program aspired to significantly more additional education than their general peers (rable 7.13). In addition, male college prep participants and those with advanced degrees aspired to more years of additional training than their general peers. The length of time in the labor force had a significantly negative effect on this variable.

For women, none of the vocational variables were significant. Tenure on the current job, completion of a proprietary vocational program, and completion of an apprenticeship program had significantly positive effects on years of additional education that were desired. Completion of employer-sponsored training had a significantly negative coefficient for this variable.

Summary

For YAW men, the characteristics associated with the expectation of having the same kind of job in five years included being white, longer tenure on the job, higher pay, four years of college, and graduation from high school in a business or trade curriculum. The corresponding characteristics for women were being white, longer tenure on the job, higher pay, longer period in the labor force, lower SES, and completion of four years of college, employer-sponsored training, or a public community college.

Vocational graduates in the YAW, Class of '72, and NLS Girls sample most frequently aspired to jobs in the professional and clerical areas. Generally, a lower percentage of vocational than college prep or general graduates aspired to professional or managerial jobs. The NLS Boys from a vocational-business program mentioned the managerial and professional areas most often, and their peers from other vocational areas mentioned managerial and crafts most often.

Based on the YAW survey, 68 percent of vocational, 64 percent of college prep, and 58 percent of general curriculum graduates expressed a need for additional schooling. Significant predictors included the trade program for men and being white for women. The Class of '72 results indicated negative coefficient for the business and OTHER vocational groups. Almost all of the postsecondary variables for the Class of '72 were significantly positive.

For YAW vocational and general graduates, the most frequently mentioned type of aspired education was a bachelor's degree, followed by trade and graduate school. Overall, YAW vocational graduates aspired to fewer years of additional training than did their general peers. However, male marketing graduates aspired to significantly more additional training than their general peers. None of the vocational variables were significant for women.

CHAPTER VIII

SUMMARY AND CONCLUSIONS

The Younger Adult Workers study examined the long-range impact of participation in vocational education through a national cross-sectional survey of 1,539 persons aged twenty to thirty-four. Oversampling of vocational graduates yielded a sample of 53 percent vocational, 28 percent college prep, and 19 percent general education high school graduates. The subjects were asked about their employment and educational experiences and aspirations.

A number of independent variables were used to examine their differential effects on the outcome variables. Overall, males, whites, the advantaged, urban residents, those with postsecondary education, and union members reported having a more positive labor market experience than females, minorities, the disadvantaged, rural residents, those without postsecondary education, and nonunion workers. These distinctions are important because the differential effects found by curriculum area or by vocational program area are influenced by their proportion of representation in these various groups

For example, white females were more heavily represented in the vocational than college prep or general groups. The percentage of disadvantaged persons in the vocational group was twice that in the college prep group but was lower than that in the general group. The vocational group also had a higher concentration of younger people than either the college prep or general groups. Consequently, gross comparisons across curricula obscure differences for these various subgroups.

The use of the global term "vocational" to cover those in the occupationally oriented curricula is also misleading because big differences exist among the various program areas. For example, over half of the vocational representatives are from the business and office area, and this field is dominated by females. Trade and industry is the next most represented area, and it is dominated by males. Differential effects by vocational program area were found for all of the dependent measures.

Overall, the college prep group reported a more positive labor market experience than did the general or vocational groups. However, systematic differences exist in the types of

people in each group. For example, the vocational group had a higher percentage of disadvantaged and females than the college prep group. This raises the question of an appropriate comparison group for the vocational completers.

The results concerning the earnings for the three curriculum groups definitely discount the allegations that vocational education prepares youngsters for low status, low paying jobs. Positive earnings effects were found for male marketing and trade graduates, as well as for female business and trade graduates. However, consistently negative effects on earnings were found for women in the "other" category, as well as for women as compared to men. On the positive side, unemployment was reduced, especially for business and marketing females.

Retrospectively, vocational graduates expressed a high degree of satisfaction with their high school curriculum. Generally, graduation from a vocational high school curriculum was negatively associated with completion of traditional postsecondary education. However, it was positively associated with completion of nontraditional postsecondary experiences such as apprenticeship and employer-sponsored training, and completion of these programs was associated with high earnings.

Findings

These conclusions are based on the following findings:

Earnings

- In the YAW data set, except for minority women, college prep students earned more per hour than vocational students, and vocational students earned more per hour than general students on the most recent job.
- In Class of '72 and NLS-LME data vocational students usually earned more than general curriculum students. The difference was significant for Class of '72 men for weekly earnings. The exception was that women in the NLS-LME who took vocational programs other than business earned less than general students.
- In the YAW data, trade and industry graduates (who were mostly men) earned more per hour than the average for the sample. Business and home economics students earned the least among vocational students.
- Even within program areas, men usually earned more than women, and white respondents earned more than minority respondents.

- Among men on the most recent job, after controlling for personal characteristics, YAW and Class of '72 data showed that marketing was associated with higher earnings than general curriculum, business, and other vocational programs. None of the effects were strictly significant. In the YAW data set, men in trade earned more, but in the Class of '72 they earned significantly less than general students. When postsecondary education is controlled, men in trade earned significantly more than general students in the Class of '72.

- Several variables in the YAW data that attempted to improve the identification of effective vocational curricula did not significantly contribute to explaining earnings for either men or women.

- Postsecondary vocational education had significant positive effects on earnings for men in the Class of '72 data. Privately administered (but not publicly administered) postsecondary vocational education had significantly positive effects for men in the YAW data.

- Increased work experience and job tenure, unionization of the job, and jobs in construction and durable manufacturing were associated with higher earnings for men.

- When postsecondary education was controlled, women in trade and business courses earned more than those who took a general curriculum, according to data from both the YAW and Class of '72 surveys. Women in marketing tended to earn less than those in a general curriculum.

- For women in both the YAW and Class of '72 data, graduates of two-year vocational programs tended to earn more than general curriculum high school graduates.

- For both men and women, completion of four-year or advanced degrees tended to be associated with higher earnings in both the YAW and Class of '72 data.

- For both men and women on the most recent job in both the YAW and Class of '72 data, apprenticeship and employer-sponsored training were associated with higher earnings than for general curriculum high school graduates.

- Indirect effects of vocational education on earnings are felt through all forms of postsecondary education. The estimated indirect effects raise expected earnings for completers of employer-sponsored training, for men in apprenticeship, and for trade specialists who complete two-year school programs. The negative indirect effects arise from the lower probability that vocational students

vocational students will complete advanced degree or four-year college programs.

- Indirect effects are also found through the effects on tenure and unionization. The tenure effects act to raise expected earnings because vocational students tend to have longer tenure on the most recent job. The lower probability that vocational students in business and marketing will be in unionized jobs acts to reduce expected earnings for them.

- Earnings on the first regular full-time job were determined primarily by educational attainment level. There were no significant differences in the YAW data between vocational and general curriculum students.

- Vocational education was not systematically related in the YAW data to growth in earnings within the first job, within the most recent job, or over the respondent's career.

Employment

- The YAW data showed that all vocational programs were associated for men with a lower likelihood of being unemployed at the time of the survey, but the association was strictly significant only for a business program. There was no consistent pattern of effect among women in the likelihood of being unemployed at the time of the survey. When personal characteristics and postsecondary attainment were controlled, for neither men nor women was there any direct effect from vocational education on the weeks of unemployment experienced during the past two years.

- The percentage of vocational students who reported a substantial or fair amount of use of skills learned in high school was relatively high, about 60 percent.

- Women in business programs and men in trade programs were more likely than other vocational students to find training related employment on their first job.

- More thorough programs that included training in job hunting skills and teacher assistance in finding work increased the likelihood that students would work in training-related positions on their first jobs. That link between more intensive high school vocational programs and greater use of skills did not extend to the most recent job.

- Completion of postsecondary vocational or technical programs was associated with greater use of skills on both jobs.

- Vocational programs tended to be associated with employment in the types of occupations one would expect, such as agriculture in farming; marketing in sales or clerical jobs; business in managerial or clerical jobs; and trade and industry in craft or operative jobs. On the most recent job, vocationally educated men were less likely than general students to be in white collar positions but were more likely to be in craft or service jobs.

- Students from vocational training were no less likely than those from a general curriculum to exhibit patterns of career advancement from operative to craft jobs, out of laborer and service jobs, into managerial and technical jobs.

- For men on the first job, all vocational programs except marketing were significantly associated with Duncan prestige scores between three and five points more than general curriculum students. For the most recent job, the positive association continued but was no longer statistically significant. For women, business programs were associated with significantly higher scores, and trade with significantly lower scores on both jobs.

- Vocational students were less likely than general or college prep students to be self-employed on either job, but a larger percentage of vocational students moved into self-employment between first and most recent jobs.

- Patterns for unionization, job tenure, work experience, tenure on the longest job, and hours worked per week were not sharply defined, except that men from a business program tended to work four to five hours per week less than other students.

- Male vocational students who were downwardly mobile (in terms of Duncan score) between first and most recent jobs tended to show greater career stability than other downwardly mobile respondents. Female vocational students tended to exhibit less stability among downwardly mobile respondents and more stability among upwardly mobile respondents than did general curriculum students.

Education

- Business, trade, and marketing graduates in the YAW sample rated satisfaction with the adequacy of their preparation to get a job significantly more positively than their general peers.

- Greater participation in job-related courses, more extensive use of occupational skills, assistance from teachers in job placement, and learning job-seeking skills are all associated with greater satisfaction with job preparation in high school (the YAW sample).

- Findings from the Class of '72 data base confirmed that vocational graduates expressed the highest degree of satisfaction with their vocational instruction.

- Overall, the YAW vocational graduates were more likely than their general peers to indicate that they would repeat their high school curriculum again, even knowing what they know now. The results of regression analyses revealed a consistently significant difference between male vocational graduates in trade, business, and other vocational areas as compared to their general peers. For females, the significant difference appeared for all of the program areas.

- The YAW male secondary-level marketing graduates reported participation in, completion of, and use of skills learned in their public postsecondary vocational program significantly more often than their general peers. For YAW women, none of the vocational program areas were significantly different from the general curriculum. Regression analyses on a parallel measure for the Class of '72 revealed significant coefficients on the trade and college prep variables for both men and women. None of the curriculum variables in the NLS data base were significant predictors of completion of a business college or technical institute program.

- For YAW men, being in the "other" vocational category was associated with a significantly negative effect on completion of a proprietary vocational school program. For women, the secondary-level trade and industry graduates reported significantly greater participation in, completion of, and use of skills learned in such programs than their general peers.

- Significant predictors for the YAW data base of completion of a four-year college or university program included graduation from a college prep curriculum and being from a high SES background. Significantly negative coefficients were found for male trade graduates

and female business graduates, as compared to their general peers. The Class of '72 results confirmed the significantly positive effect of the college prep curriculum and revealed significantly negative coefficients for all the vocational program areas.

- Based on the YAW survey results, completion of an advanced degree program was significantly positively associated with high SES and graduation from a college prep curriculum. Neither male nor female graduates differed significantly from their general peers on any measure associated with an advanced degree program. The Class of '72 regression results confirmed the importance of the college prep curriculum in high school.

- For both men and women in the YAW sample, graduation from a trade and industry program was associated with a significantly positive effect on participation in and completion of apprenticeship training. The Class of '72 regression results supported the finding that men and women from a trade program were likely to complete apprenticeship training.

- For YAW men, completion of a secondary-level marketing or trade program was significantly associated with greater participation in and completion of employer-sponsored training. For women, the marketing area was associated with greater completion of employer-sponsored training, and completion of a college prep program was significantly associated with completion of such programs. The Class of '72 and NLS Boys and Girls did not support the positive findings for vocational curriculum variables; however, they did confirm the positive finding for the college prep variable.

- Completion of a government-sponsored training program was significantly negatively associated with graduation from a college prep curriculum for the YAW and Class of '72 samples. For YAW women, it was significantly negatively associated with being in the "other" vocational group.

- None of the YAW curriculum variables were significant predictors of completion of military training. For the Class of '72, only the marketing area was associated with a significantly positive coefficient, and this was based on a very small sample.

Aspirations

- For YAW men, the characteristics associated with an expectation of having the same kind of job in five

years included being white, longer tenure on the job, higher pay, four years of college, and graduation from high school in a business or trade curriculum. The corresponding characteristics for women were being white, longer tenure on the job, higher pay, longer period in the labor force, lower SES, and completion of four years of college, employer-sponsored training, or a public community college program.

- Vocational graduates in the YAW, Class of '72, and NLS Girls sample most frequently aspired to jobs in the professional and clerical areas. Generally, a lower percentage of vocational than college prep graduates aspired to professional or managerial jobs. For the NLS Boys from a vocational-business program, the managerial and professional categories were most frequently mentioned. The NLS Boys from the other vocational areas mentioned managerial and crafts most often.

- Based on the YAW survey, 68 percent of vocational, 64 percent of college prep, and 58 percent of general curriculum graduates expressed a need for additional schooling. Significant predictors included the trade program for men and being white for women. The Class of '72 data revealed a significantly negative coefficient for business graduates and graduates from the "other" vocational group. Almost all of the postsecondary variables for the Class of '72 were significantly positive.

- For YAW vocational and general graduates, the most frequently mentioned type of education aspired to was the bachelor's degree, followed by trade school and graduate school.

- Overall, YAW vocational graduates aspired to fewer years of additional training than their general peers. However, male marketing graduates aspired to significantly more additional training than their general peers. None of the vocational variables were significant for women.

Implications

The results of this study supports the conclusion reached by Grasso and Shea (1979b) that vocational education should be evaluated on a broad range of criteria, not on earnings or placement alone. Former vocational students in some program areas experience higher earnings and less unemployment than former general curriculum students. However, the effects are far more wide-ranging than that. Vocational education influences postsecondary experiences and many aspects of occupational choice. The

postsecondary experiences are of interest both in themselves and because they, in turn, affect occupational choices. Occupations themselves are multidimensional, and it is a mistake for evaluators to focus on a single dimension, such as pay or prestige.

Occupational choices involve balancing gains in some dimensions with losses in other dimensions. To focus on one dimension to the exclusion of others is, to repeat Grasso and Shea's term, myopic. The finding reported here that vocationally educated respondents remained, in retrospect after an extended period of labor market experience, more satisfied with their high school curriculum than general curriculum students suggests that there is considerable scope for trade-offs between characteristics such as pay, the appeal of the work, flexibility of working hours, and the potential for eventual self-employment. Such trade-offs must be made clear to evaluators of vocational education, and the empirical dimension of the trade-offs must be estimated.

High school vocational education is associated with greater participation in some forms of postsecondary education and less participation for others. One must be cautioned against accepting these findings unequivocally. On this topic more than any other, self-selection bias can influence results. The best candidates for advanced degrees, for example, are not likely to take vocational curricula in high school. Nevertheless, vocational education seems to encourage many of its students to participate more fully in two-year vocational programs or in apprenticeship or employer-sponsored training programs that have beneficial effects on earnings and employment. These forms of postsecondary participation should receive further encouragement from teachers of vocational education.

The results of this study also suggest that if training related placement remains a primary goal, vocational education programs can succeed in improving placement rates. Respondents in the YAW survey reported higher rates of training related employment when they were more satisfied with their high school programs, studied vocational courses more intensively, received instruction in job seeking skills, and received direct assistance from their teachers in finding work.

The results of this study strongly indicate that sex stereotyping is a pervasive element in the type of vocational program and in the type of employment experienced by the Younger Adult Worker cohort. Enrollment of men and women in vocational programs was primarily by traditional sex stereotypes (i.e., women in business, health and home economics; men in trades and agriculture). Following from this, the type of occupation obtained by men and women was also according to traditional sex sterotypes.

A recent study in fifteen states indicated that the percentage of women in nontraditional programs rose from 6 percent in 1972 to 10 percent in 1978 (National Advisory Council on Vocational Education and National Advisory Council on Women's Educational Programs, 1980). Although this is a positive trend, it is clear that sex equity continues to be a critical issue for vocational educators. Its importance is underscored by two specific findings in this study: First, the significant earnings advantages are experienced by males as compared to females, and second, women experience an earnings advantage in the nontraditional trade area. Together, these findings suggest an important role for vocational education in reducing inequities based on sex.

Additional Research

This study suggests several areas in which further research effort is called for. On the issue of better identifying vocational education participants, the National Center has collaborated with the Center for Human Resource Research at The Ohio State University to collect high school transcripts for a large fraction of the New Youth Cohort of the NLS-LME. Some promising initial analyses have been completed that use these new data to identify patterns of participation (Campbell, Orth, and Seitz 1981, Campbell et al., 1981). Research is continuing as the remaining transcripts are being collected.

The issue of self-selection bias could not be addressed here. The New Youth Cohort survey provides some promising data for considering that problem.

Future research should focus more closely on the linkages between proximate and more remote effects of vocational education. Such research should examine in detail each step in the process through which vocational education influences outcomes. More attention than could be given here must be paid to distinguishing between direct and indirect effects. Special attention should be focused on job-searching patterns followed by vocational and general students, job characteristics, and postsecondary training.

Further examination is called for on the effect of high school work experience on later labor market experience. Important work based on the Class of '72 data has been reported in this area by Meyer and Wise (1979). However, a more detailed investigation of how those effects are imparted is warranted and should include such matters as the specific types of jobs that are held during high school, a comparison of those jobs with the jobs held early in the respondent's career, and the attitudes toward work held by students who work while in high school. Data

from the New Youth Cohort will permit consideration of those issues in more detail.

Bound closely with the problem of selection bias is the issue of the role of vocational education in helping students complete high school. It should be possible to use the data from the New Youth Cohort and the transcript collection to examine this question more clearly than has previously been possible.

Further examination is warranted on the meaning of the findings concerning satisfaction with job and curriculum. It is of interest, for example, to know whether the greater satisfaction expressed by vocational students is the result of a more rewarding high school experience or of lower aspirations among vocational students.

Because of small sample problems, little could be said here about the role vocational education can play in reducing problems of the physically handicapped. Additional research is needed to examine this area more closely.

The sex equity area is also in need of further research to examine such issues as the course entry process, training in school, placement of students, and attitudes and behaviors of administrators, teachers, counselors, parents, and students. Many other areas related to sex equity and vocational education are also in need of further research, including the definition of the federal role, the need for supportive services such as child care, staff and materials development, and the role of the sex equity coordinator.

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APPENDIX 1

YOUNGER ADULT WORKERS SURVEY QUESTIONS

February 5, 1981 r

OMB# 1220-0005
Expires March 31, 1981

INTRODUCTION [illegible]

SURVEY OF [illegible]

Hello, I m _____ from the Gallup Organization in Princeton, New Jersey. We are surveying younger adult workers across the United States.

C1.	Is there anyone living in your household between 20 and 34 years old?	YES (GO TO C4) NO (TERMINATE) DK/NA (GO TO C2)
C2.	Is there someone there who could tell me if there is anyone between 20 and 34 years old?	YES (GO TO C3) NO (TERMINATE) DK/NA (GO TO C7)
C3.	Please call that person to the phone.	PERSON ON PHONE (GO TO C1) PERSON NOT AVAILABLE (GO TO C7)
C4.	Are any of these 20 to 34 year olds working or looking for work?	YES (GO TO SCREENING SHEET) NO (TERMINATE) DK/NA (GO TO C5)
C5.	Is there someone at home who could tell me if there is anyone living in your household between 20 and 34 years old and working or looking for work?	YES (GO TO C6) NO (TERMINATE) DK/NA (GO TO C7)
C6.	Please call that person to the phone.	PERSON ON PHONE (GO BACK TO C4) PERSON NOT AVAILABLE (GO TO C7)
C7.	(When will this person be home?) Thank you, we'll call again later. (ARRANGE TIME AND RECORD)	ENTER TIME AND RECORD ON CONTACT SHEET WITH DISPOSITION.

Months

01 = January
02 = February
03 = March
04 = April
05 = May
06 = June
07 = July
08 = August
09 = September
10 = October
11 = November
12 = December

Time Conversion Tables

1 year = 12 months = 52 weeks
1/2 year = 06 months = 26 weeks
1/3 year = 04 months = 16 weeks
01 month = 04 weeks

January 31, 1981
OMB #183005
Expires March 31, 1981

OVERSAMPLE SCREENING SHEET

SURVEY OF YOUNGER ADULT WORKER

S1. In order to know who should be interviewed, I need to list the adults living in your household who are between 20 and 34 years old and working or looking for work and who have completed a vocational or business/office program in high school. Starting with the oldest male under 35 who has completed a vocational program, please tell me the sex and age of each person living in the household. Include yourself and anyone who permanently lives there.

S4. Hello, I'm _____ calling from the Gallup Organization in Princeton, New Jersey. We are conducting a study on the education and work experiences of people across the United States. We want you to know before we begin the survey that your name will be held strictly confidential -- no government or anyone else will ever be able to link your answers to your name. Also, your participation is voluntary.

I need to confirm that you are between 20 and 34 years old and working or looking for work outside your home and have completed a vocational or business/office program in high school which prepared you for an occupation such as a carpenter, auto mechanic, secretary, beautician, and so forth.

February 5, 1981 r

MAIN QUESTIONNAIRE

SURVEY OF YOUNGER ADULT WORKERS

OMB# 1850-0005
Expires March 31, 1981

First, thinking back to when you were in high school, here are a few questions that ask about that time in your life.

1. When you were in high school did you live with your family, in a boarding school, with friends, or in some other situation?

Family	1
Boarding school	2
Friends	3
Other _____ (SPECIFY)	4
dk/na	9

2. During the last year in high school, did you or anyone else in your family (READ LIST)...

	Yes	No	dk/na
A. get any magazines regularly?	1	2	9
B. get a newspaper regularly?	1	2	9
C. have a library card that you used regularly?	1	2	9

3. When you were 14 years old, what kind of business or industry did the CHIEF WAGE EARNER in your immediate family or household work in, and what kind of work did this person do? (RECORD VERBATIM)

Kind of Business _____

Kind of Work _____

4. When you were 14 years old, what was the highest grade or year of regular school completed by the CHIEF WAGE EARNER in your immediate family or household? (DO NOT READ LIST)...

Less than 7th grade	01
7th-9th grade	02
10th grade	03
11th grade	04
12th grade	05
Technical trade school	06
College, incomplete	07
College graduate	08
Graduate school	09
dk/na	99

Now, here are some questions about your high school education.

5. Do you have a high school diploma or have you ever passed a high school equivalency test? (IF YES) Was that a diploma or a high school equivalency test?

Yes, a high school diploma ...	1
Yes, passed equivalency test .	2
No.....	3
dk/na....	9

6. Was the high school program you took largely (READ LIST)...

A. Vocational? (For example, did you receive training to become a carpenter, a beautician, an auto mechanic or a draftsperson or similar occupation?) 1

B. Business or Office? (For example, did you study to become a secretary, filing clerk or stock clerk or similar occupation?) 2

C. College preparatory? (GO TO Q.11)..... 3

D. General program? (GO TO Q.11)..... 4

dk, Can't say, or Other (GO TO Q.11) 9

7. Which of the following best describes the program you were enrolled in while in high school? Was that program in the area of (READ LIST)...

Agriculture.....	1
Marketing and distributive education.....	2
Health.....	3
Home economics which prepared you for paid employment.....	4
Trade or Industry including trades such as bricklayer, electrician, appliance repairman, etc.....	5
Business and Office.....	6
Other_____ (SPECIFY)	7
dk/na.....	9

8. What kind of business or industry and what kind of work did you train for while enrolled in your high school (Vocational or Business/Office) program? (RECORD VERBATIM)

Kind of Business _____

Kind of Work _____

9. During your junior and senior years in high school, approximately how much time did you spend in courses to prepare for jobs compared to other courses you took? Would you say you (READ LIST)...

A. Spent more time in job related courses than in other courses.....	1
B. Spent about the same amount of time in job related and other courses	2
C. Spent less time in job related courses than in other courses.....	3
dk/na.....	9

10. Did you receive a certificate or other document showing that you completed your high school vocational program?

Yes.....	1
No.....	2
Can't remember/dk.....	9

ASK EVERYONE:

11. Knowing what you know now, if you were in high school again would you enroll in a vocational business/office program, or enroll in a college preparatory program or a general program?

A vocational or business/office program.....	1
A college preparatory	2
General program.....	3
undecided/na.....	9

12. How well did your high school program prepare you to get a job? (READ LIST)...

Very well	1
Fairly well.....	2
Not too well	3
Not well at all.....	4
undecided/na.....	9

13. Did any teacher or staff member of your high school help you find your first full-time regular job? That is, the first job at which you worked for the same employer for six months or longer?

Yes..... 1
No..... 2
can't remember/na..... 9

14. While you were in high school, did you learn much about how to get a job, what to do if you needed to find a new job, or what jobs were best suited to you?

Yes..... 1
No..... 2
can't remember/na..... 9

Now I am going to ask you a few questions about your work experience since leaving high school.

When I refer to a "regular job" it means a job where you worked full time for the same employer for six months or longer.

15. How many months or years of additional schooling or military training did you have after leaving high school during which you were not employed in a full-time regular job?

RECORD Years Months
dk/na..... 999

RECORD VERBATIM IF NOT MONTHS AND YEARS

16. For how many weeks during the past two years have you been unemployed and looking for work (IF 2 OR LESS, GO TO Q.19)

RECORD Months Weeks
dk/na..... 9999

RECORD VERBATIM IF NOT MONTHS AND WEEKS

17. Did you receive unemployment compensation for any of this time?

Yes..... 1
No (GO TO Q.19)..... 2
dk/na (GO TO Q.19)... 9

18. For how many weeks did you receive unemployment compensation?

RECORD Weeks
dk/na..... 99

RECORD VERBATIM IF NOT WEEKS

19. How many regular full-time jobs (employed by the same establishment for six months or longer) have you held since leaving high school -- Do not include going to school or anytime spent in the military in your answer.

	RECORD Numbers
None (GO TO Q.51).....	00
dk/na.....	99

20. How many months passed between the time you left high school and the time you obtained your first full time regular job, that is, you were employed by the same employer for six months or longer?

	RECORD Years Months
None (GO TO Q.22)	000
dk/na.....	999

RECORD VERBATIM IF NOT YEARS AND MONTHS

21. Does this time period between leaving high school and obtaining your first regular job include additional schooling or military training?

Yes.....	1
No.....	2
dk/na.....	9

22. How long was the longest regular full-time employment you have held since leaving high school?

	RECORD Years Months
dk/na.....	9999

RECORD VERBATIM IF NOT YEARS AND MONTHS

Now I would like to ask you some questions about the first regular job you held after leaving high school. Please remember by "regular job" we mean one where you worked full time for the same employer for six months or longer.

23. For your first full-time regular job, what kind of business or industry did you work in and what kind of work did you do there? (RECORD VERBATIM: PROBE FOR DETAIL ABOUT KIND OF WORK)

Kind of Business _____

Kind of Work _____

24. For your first regular job, were you (READ LIST)...

A. An employee of a PRIVATE company, business or individual..... 1

B. A GOVERNMENT employee..... 2

C. SELF-EMPLOYED in your OWN BUSINESS, professional practice or farm..... 3

D. Working WITHOUT PAY in family business or farm..... 4

E. Other_____ 5
(SPECIFY)

dk/na..... 9

25. What month and year was it when you started working at this first employment?

__ __ 19__ __
Month Year

dk/na..... 9999

RECORD VERBATIM IF NOT MONTH AND YEAR

26. How many hours per week did you usually work?

__ __
Hours

27. Omitted

28. Altogether, including tips, overtime and bonuses, how much did you earn per hour when you started this job? Please give me the amount you earned before deductions, like taxes and Social Security, were taken out. (IF NOT HOURLY, RECORD VERBATIM)

$__ __. __ __ (GO TO Q.30)
Dollars Cents

(STARTING HOURLY PAY)

dk/na/refused (ASK Q.29).. 9999

29. Was it (READ LIST)...

Less than $3.00 per hour	1
Between $3.00 and $6.00 per hour.....	2
Between $6.01 and $10.00 per hour.....	3
More than $10.00 per hour.....	4
dk/na/refused.....	9

30. If you studied occupational skills in high school, to what degree did you use the skills you learned on your first job? Would you say you used them (READ LIST)...

A great deal	1
A fair amount.....	2
Not very much.....	3
Not at all.....	4
Did not study occupational skills.....	5
dk/na.....	9

31. Were your wages or salary set by a collective bargaining agreement between your employer and a union or employee association?

Yes.....	1
No (GO TO Q.33).....	2
dk/na.....	9

32. Were you a member of that organization?

Yes.....	1
No.....	2
dk/na.....	9

33. Are you presently (READ LIST)...

Working for the same employer (GO TO Q.36).....	1
Working for another employer..	2
Not working.....	3

34. What month and year was it when you stopped working at this first job?

__ __ 19__
Month Year

dk/na..... 9999

RECORD VERBATIM IF NOT MONTH/YEAR

35. How much were you earning an hour when you left this job? IF NOT HOURLY, RECORD VERBATIM:

$___.___ (GO TO Q.37)
Dollars Cents
(HOURLY LEAVING PAY)

dk/na (ASK Q.35a) 9999

(GO TO Q.37)

35a. Was it (READ LIST)...

Less than $3.00 per hour.....	1	(GO TO Q.37)
Between $3.00 and $6.00 per hour.....	2	
Between $6.01 and $10.00 per hour.....	3	
More than $10.00 per hour.....	4	
dk/na/refused.....	9	

36. Have you been promoted to a new position by this employer?

Yes.....	1
No (GO TO Q.50).....	2

37. Now I would like to shift from your first full time regular job to your current job or the last job you held.

Last week, were you (READ LIST)...

Working on a full-time regular job.....	1	GO TO Q. 38
With a job, but not at work...	2	
Looking for work.....	3	
Going to school.....	4	
Unable to work because of disability.....	5	
Keeping house and taking care of family needs.....	6	
Other_____ (SPECIFY)	7	

DO NOT READ ITALICS Q.38-49

37a. Which month and year did you leave your last job?

__ __ 19__ __
Month Year

dk/na..... 9999

IF ASKED Q.37a, READ ITALICS 38-49.

38. For your present (*last*) job, what kind of business or industry do (*did*) you work in and what kind of work do (*did*) you do there?

Kind of Business _____

Kind of Work _____

39. Are (*were*) you presently (READ LIST)...

An employee of a PRIVATE company, business or individual.....	1
A GOVERNMENT employee.....	2
SELF-EMPLOYED in your OWN BUSINESS, professional practice or farm.....	3
Working WITHOUT PAY in family business or farm.....	4
Other _____ (SPECIFY)	5
dk/na.....	99

40. What month and year was it when you started working for this employer? (IF STILL WORKING FOR SAME EMPLOYER (Q.33) NO NEED TO ASK Q.40)

__ __ Month 19__ Year

dk/na 9999

41. How many hours per week do (*did*) you usually work?

__ __ HOURS

dk/na..... 99

42. OMITTED

43. Altogether including tips, overtime and bonuses, how much did you earn per hour when you started this job? Please give me the amount you earned before deductions, like taxes and Social Security, were taken out. (IF NOT HOURLY, RECORD VERBATIM)

$__ __ . __ __
Dollars Cents (GO TO Q.45)
(STARTING HOURLY PAY)

dk/na/refused (ASK Q.44)... 9999

_____

_____

44. Was it (READ LIST)...

- Less than $3.00 per hour..... 1
- Between $3.00 and $6.00 per hour..... 2
- Between $6.01 and $10.00 per hour..... 3
- More than $10.00 per hour..... 4
- dk/na/refused..... 9

45. If you studied occupational skills in high school, to what degree do *(did)* you use the skills you learned on your current *(last)* job? Would you say you use *(used)* them (READ LIST)...

- A great deal 1
- A fair amount..... 2
- Not very much 3
- Not at all..... 4
- Did not study occupational skills..... 5
- dk/na..... 9

46. Are *(were)* your wages or salary on this job set by a collective bargaining agreement between your employer and a union or an employee association?

- Yes 1
- No (GO TO Q.48)..... 2
- dk/na (GO TO Q.48).... 9

47. Are *(were)* you a member of that union or employee association?

- Yes..... 1
- No..... 2
- dk/na..... 9

48. How much do *(did)* you earn hourly currently *(when you left)*? IF NOT HOURLY, RECORD VERBATIM

$\_\_\_\_ \_\_\_\_ . \_\_\_\_ \_\_\_\_$

(HOURLY PAY) (GO TO Q.50)

dk/na/refused (ASK Q.49) 9999

49. Is (was) it (READ LIST)...

- Less than $3.00 per hour 1
- Between $3.00 and $6.00 per hour..... 2
- Between $6.01 and $10.00 per hour..... 3
- More than $10.00 per hour 4
- dk/na/refused... 9

ASK ONLY THOSE CURRENTLY WORKING (SEE Q.37 CODES 1-2 FOR WORKING) OTHERS GO TO Q.51.

50. Do you think you will be working at this same kind of job five years from now?

Yes (GO TO Q.54)	1
No.....	2
dk/na.....	9

51. What business or industry and what kind of work would you like to be in five years from now?

Kind of Business _____

Kind of Work _____

52. Do you feel you will need to complete some additional schooling or training in order to obtain the job you mentioned in the previous question?

Yes.....	1
No (GO TO Q.55).....	2
dk/na (GO TO Q.54)....	9

53. What kind of schooling or training? (RECORD VERBATIM)

_____

_____

54. How much time do you think you will actually spend going to school or going through some type of additional training during the next five years? (IF NOT YEARS/MONTHS, RECORD VERBATIM)

RECORD	Years	Months
Other _____ (SPECIFY)		998
dk/na.....		999

_____

55. Now I would like to ask you about different kinds of education or training programs you ma have taken since leaving high school. I am going to read a list of different types of programs. Please indicate if you took part in any of these.

READ ACROSS FOR EACH PROGRAM (ROTATE) Have you ever taken part in...			(FOR EACH YES, ASK...) How long were you in the program?		Did you complete the program?		Did you receive a degree or certificate of completion?		After leaving the program did you take a job where you used the skills you studied, take a job where you didn't use the skills you studied, or didn't yet you seek a job?		
	Yes	No	Yrs.	MO.	Ye	No	Yes	No	Used Skills	Didn't Use Skills	Didn't Seek a Job
A. An apprenticeship Training program	1	2	___	___	1	2	1	2	1	2	3
B. An employer-sponsored formal training program, not just on-the job training	1	2	___	___	1	2	1	2	1	2	3
C. A business, trade or technical program in a private school or college	1	2	___	___	1	2	1	2	1	2	3
D. A military (MOS) training program related to civilian occupations	1	2	___	___	1	2	1	2	1	2	3
E. A College or University four-year degree program	1	2	___	___	1	2	1	2	1	2	3
F. Advanced degree program, masters, doctorate, or professional degree	1	2	___	___	1	2	1	2	1	2	3
G. A business, trade or technical program in a public community college or technical institute	1	2	___	___	1	2	1	2	1	2	3
H. Government sponsored training like CETA, Job Corps, WIN	1	2	___	___	1	2	1	2	1	2	3
I. Other: (SPECIFY) _____	1	2	___	___	1	2	1	2	1	2	3
_____	1	2	___	___	1	2	1	2	1	2	3

67-70 respondent id. Card 6
71-72 blank
80 Card 6

1 - 6 job #

Finally, we would like to ask you a few questions for statistical purposes.

56. Sex (IF UNSURE, ASK)

Male 1
Female 2

57. When were you born?

__ __ __ __ 19__
RECORD Month Day Year

dk/na.....999999

58. What is your origin or decent? (READ LIST)...

American Indian..... 1
Black..... 2
Hispanic..... 3
Oriental..... 4
White, not Hispanic..... 5
Other_____ 6
(SPECIFY)
na..... 9

59. Are you presently married, widowed, divorced, separated, or have you never been married?

Married..... 1
Widowed..... 2
Divorced..... 3
Separated..... 4
Never been married..... 5
na..... 9

60. Do you have any physical limitations that restrict the kinds of jobs you can do?

Yes..... 1
No (GO TO CONFIRMATION OF PHONE NUMBER, Q.62)..... 2
dk/na..... 9

61. What are they? (DO NOT READ LIST) RECORD VERBATIM .

_____

_____

Visually impaired.....	1
Hearing impaired.....	2
Orthopedically impaired.....	3
Speech impaired.....	4
Other_____ (SPECIFY)	5
Multiply handicapped.....	6
dk/na/refused.....	9

62. Last, can I confirm this telephone number? (READ NUMBER FROM FRONT PAGE)...

Confirmed.....	1
Unconfirmed.....	2
refused.....	3

I hereby attest that this is a true and honest interview.

_____

Interviewer's Signature

Resp. id.

APPENDIX 2

THE FAMILY SOCIOECONOMIC VARIABLE

APPENDIX 2

THE FAMILY SOCIOECONOMIC VARIABLE

The purpose of the family SES variable is to derive an overall indicator that is representative of socioeconomic status. This is a key variable in the evaluation of labor market effects because it must be assumed that vocational education graduates and others have the same socioeconomic backgrounds.

Principal components analysis was used to construct the SES variable. The following three indices were taken as intercorrelated variables.

- Family learning environment at home during last year in high school. If the respondent's family regularly subscribed to magazines and newspaper, and if the respondent had a library card during the last year in high school, a score of three was given. If two of the above responses were positive, a score of two was given and if one or none of the above was applicable, appropriate scores of one and zero was assigned.
- Highest grade or year of schooling attained by the chief wage earner in respondent's family or household at age fourteen.
- Chief wage earner's Duncan SES score based on their occupation when the respondent was fourteen years old.

Through pair-deletion of missing variables, the intercorrelations of 1,525 sample cases are as follows:

Variables	(1)	(2)	(3)
1	1.0000	.2839	.4870
2	------	1.0000	.2624
3	------	------	1.0000
$\bar{X}$	11.853	2.136	40.46
s.d.	3.104	.867	12.909

The use of principal component analysis results in only one factor and an eigenvalue of 1.70 that explains 57 percent of the variance. The variables SES is then constructed by the following formula:

$$SES = .478x_1 + .371x_2 + .471x_3$$

where x_i is the standard score of the variable i.

APPENDIX 3

EXPLANATION OF TABLES

APPENDIX 3

EXPLANATION OF FORMAT FOR
CROSS-TABULATION TABLES

TABLE A

Cross-Tabulation of Race and Sex by Curriculum

RS	CUR	1 VOCATIONAL	3 COLLEGE PREP	4 GENERAL	ROW TOTAL
WHITE MALE	1	253 46.4 37.9 20.2	187 34.3 51.2 15.0	105 19.3 48.4 8.4	545 43.6
WHITE FEMALE	2	311 59.8 46.6 24.9	135 26.0 37.0 10.8	74 14.2 34.1 5.9	520 41.6
MINOR MALE	3	57 60.0 8.5 4.6	21 22.1 5.8 1.7	17 17.9 7.8 1.4	95 7.6
MIN FEM	4	47 52.2 7.0 3.8	22 24.4 6.0 1.8	21 23.3 9.7 1.7	90 7.2
COLUMN TOTAL		668 53.4	365 29.2	217 17.4	1250 100.0

NUMBER OF MISSING OBSERVATIONS = 18

A cross-tabulation format is used to present some of the data in this report. Each table contains four figures per cell, as well as row and column totals. The information provided depends on the data represented in the table. Table A is an example of a cross-tabulation of the frequency data for the respondents by sex, race, and high school curriculum. The categories of high school curriculum in the survey were vocational, college prep, or general.

The data in table A indicates that 1,250 people replied to the survey questions about race and high school curriculum. Of that total, 43.6 percent (545) were white males, and 41.6 percent (520) were white females. Examining the column totals, 668 (53.4 percent) of the 1,250 respondents had participated in a vocational curriculum in high school, and 217 (17.4 percent) had participated in a general curriculum.

Table A contains twelve cells with each cell containing four figures. The cell containing the data for white males who had participated in a vocational curriculum can be used to explain the information contained in each cell. The first two numbers in the cell indicate that of the 545 white males who responded to this survey item, 253 or 46.4 percent (253/545) participated in a

vocational curriculum. The third number shows that 37.9 percent (253/668) of the 668 respondents who had participated in a vocational curriculum were white males. The last number indicates that of all the 1,250 respondents, 20.2 percent (253/1,250) were white males from a vocational curriculum.

The number of missing observations (18) indicates the number of respondents who participated in the survey but who did not respond to one of the three questions concerning sex, race, or high school curriculum.

TABLE B

Mean Earnings Per Hour by Sex, Race, and Curriculum

RACESEX	CUR / MEAN / COUNT / SUM / STD DEV	VOCATIONAL 1	COLLEGE PREP 2	GENERAL 3	ROW TOTAL
WHITE-MALE 1		7.45	7.53	7.39	7.46
		986	2498	1976	5460
		7344.70	18803.35	14600.11	40748.16
		2.90	3.01	2.92	2.96
WHITE-FEM 2		5.49	6.27	5.36	5.80
		1060	1993	1354	4407
		5814.20	12505.75	7257.04	25577.00
		1.99	2.31	2.10	2.21
MINORITY-MALE 3		7.01	7.23	6.79	6.99
		378	351	472	1201
		2650.58	2537.23	3202.73	8390.53
		3.06	2.99	3.21	3.10
MINORITY-FEM 4		5.29	6.04	5.23	5.51
		412	409	449	1270
		2181.31	2471.19	2348.53	7001.02
		2.24	2.42	2.26	2.33
COLUMN TOTAL		6.34	6.92	6.45	6.62
		2836	5251	4251	12338
		17990.80	36311.51	27408.41	81716.69
		2.70	2.79	2.83	2.80

Table B is an example of the other cross-tabulation format. It presents a cross-tabulation of earnings per hour by sex, race, and high school curriculum for a different data set than was used in table A. The data in table B indicate that 12,338 people with an overall average wage of $6.62 responded to the survey questions calling for race, sex, and wage information. Of that total 5,460 were white males (averaging $7.46), 4,407 were white females (averaging $5.80), 1,201 were minority males (averaging $6.99), and 1,270 were minority females (averaging $5.51). Examining the column totals, 2,836 respondents had participated in a vocational curriculum; 5,251 had participated in college prep; 4,257 had a general curriculum in high school. Those from a vocational curriculum earned an average of $6.34, whereas those from a college prep curriculum averaged $6.92 per hour.

As with table A, table B contains twelve cells, with each cell containing four figures. However, the information provided in each cell is different from what was shown in table A. Consider, for example, the cell for white males who took a vocational curriculum. The first number in the cell indicates that the average hourly wage was $7.45. The second number indicates that this average is based upon the responses from 986 white males who had participated in a vocational curriculum. The third number (7344.70) indicates the sum of all responses concerning hourly wage from the 986 individuals. The fourth number, 2.90, indicates the standard deviation, a measure of the degree of dispersion in hourly earnings for this subgroup of respondents.

APPENDIX 4

TEXT TABLES

General Notes for Tables

1) **(*) Indicates that an estimated regression coefficient is significantly different from zero at the .05 (.10) level in a two-tailed test.

2) Percentage distributions shown are for unweighted data.

3) In tables that show the percentage distribution of cases among several categories, the separate percentages may sum to 99 or 101 because of rounding.

4) + indcates that the category contains fewer than 20 cases and should be regarded cautiously.

5) In cross-tabulations by vocational program (such as Table 2.4) the "Numer of Missing Observations" appears to be large because it includes all respondents who reported taking either a general or college-prep curriculum.

6) In tables that show participation, completion, and use of skills from postsecondary training programs:

   a) Participation percentages are based on the number of students within a curriculum category.

   b) Completion and use of training percentages are based on the number of respondents in the curriculum category who participated in the postsecondary program;

   c) Certificate percentages are based on the number of respondents in the curriculum category who completed the program;

7) Subsamples:

   a) ALL: includes cases with the appropriate information, regardless of educational level;

   b) NO4COL: excludes respondents who completed four-year college or advanced degree programs;

   c) NOCOL: excludes respondents who completed two-year (public or private), four-year, or advanced degree programs.

TABLE 2.1

DISTRIBUTION OF SAMPLE BY CURRICULUM
YOUNGER ADULT WORKERS

	Frequency	Percent
Vocational	811	52.7
College Prep	425	27.6
General	286	18.6
Don't know	17	1.1
Total	1,539	100

TABLE 2.2

HIGH SCHOOL COMPLETION BY CURRICULUM
YOUNGER ADULT WORKERS

	Vocational		College Prep		General	
	n	%	n	%	n	%
Yes-HS Diploma	738	91.1	413	97.2	235	81.9
Yes-HS Equivalent	39	4.8	11	2.6	16	5.6
No	32	4.0	1	.2	35	12.2
Don't Know/ No Answer	1	.1	0	-	1	.3
Total	810	100	425	100	287	100

Note: Seventeen additional respondents could not be classified with respect to curriculum.

TABLE 2.3

COMPARISON OF FULL AND MODIFIED SAMPLES
(IN PERCENTAGES)
YOUNGER ADULT WORKERS

			Full Sample (n = 1,539)	Modified Sample (n = 1,268)
Sex				
	Male	White	41.7	43.6
		Minority	7.8	7.6
		Total	49.5	51.2
	Female	White	42.8	41.6
		Minority	7.8	7.2
		Total	50.5	48.8
Racial Origin				
	White		83.6	84.0
	Minority		15.6	14.6
		American Indian	1.4	
		Black	9.6	
		Hispanic	2.9	
		Oriental	.8	
		Other	.8	
	No Answer		.8	1.4
Curriculum				
		Vocational	52.7	53.3
		General	18.6	17.2
		College Prep	27.6	28.9
		Don't Know	1.1	.6
Vocational Program				
		Agriculture	4.5	4.8
		Marketing	3.6	3.5
		Health	2.1	2.0
		Home Economics	3.3	2.7
		Trades	32.6	33.9
		Business	52.2	51.3
		Other	1.6	1.8

Note: These percentages are based on vocational curriculum students who reported a program area.

TABLE 2.4

CERTIFICATE OF COMPLETION

BY VOCATIONAL PROGRAM

YOUNGER ADULT WORKERS

V26		V23 AGRICULTURE 1	MKTG,D.E 2	HEALTH 3	HOME ECONOMICS 4	TRADE OR INDUSTR 5	BUSINESS OFFICE 6	OTHER 7	ROW TOTAL
YES	1	18	14	8	13	137	164	6	360
		5.0	3.9	2.2	3.6	38.1	45.6	1.7	54.3
		56.3	60.9	61.5	72.2	60.9	48.2	50.0	
		2.7	2.1	1.2	2.0	20.7	24.7	0.9	
NO	2	12	9	5	5	84	160	6	281
		4.3	3.2	1.8	1.8	29.9	56.9	2.1	42.4
		37.5	39.1	38.5	27.8	37.3	47.1	50.0	
		1.8	1.4	0.8	0.8	12.7	24.1	0.9	
DK-NA	9	2	0	0	0	4	16	0	22
		9.1	0.0	0.0	0.0	18.2	72.7	0.0	3.3
		6.3	0.0	0.0	0.0	1.8	4.7	0.0	
		0.3	0.0	0.0	0.0	0.6	2.4	0.0	
COLUMN TOTAL		32	23	13	18	225	340	12	663
		4.8	3.5	2.0	2.7	33.9	51.3	1.8	100.0

NUMBER OF MISSING OBSERVATIONS = 605

TABLE 2.5

TIME SPENT IN OCCUPATIONAL COURSES

BY VOCATIONAL PROGRAM

YOUNGER ADULT WORKERS

V25	V23 COUNT / ROW PCT / COL PCT / TOT PCT	1 AGRICULTURE	2 MKTG,D.E	3 HEALTH	4 HOME ECONOMICS	5 TRADE OR INDUSTR	6 BUSINESS OFFICE	7 OTHER	ROW TOTAL
1 MORE IN JOB RELA		10	9	7	7	79	123	5	240
		4.2	3.8	2.9	2.9	32.9	51.3	2.1	36.2
		31.3	39.1	53.8	38.9	35.1	36.2	41.7	
		1.5	1.4	1.1	1.1	11.9	18.6	0.8	
2 SAME AS OTHER		9	6	1	7	95	137	1	256
		3.5	2.3	0.4	2.7	37.1	53.5	0.4	38.6
		28.1	26.1	7.7	38.9	42.2	40.3	8.3	
		1.4	0.9	0.2	1.1	14.3	20.7	0.2	
3 LESS IN JOB RELA		12	6	5	4	47	73	6	153
		7.8	3.9	3.3	2.6	30.7	47.7	3.9	23.1
		37.5	26.1	38.5	22.2	20.9	21.5	50.0	
		1.8	0.9	0.8	0.6	7.1	11.0	0.9	
9 DK-NA		1	2	0	0	4	7	0	14
		7.1	14.3	0.0	0.0	28.6	50.0	0.0	2.1
		3.1	8.7	0.0	0.0	1.8	2.1	0.0	
		0.2	0.3	0.0	0.0	0.6	1.1	0.0	
COLUMN TOTAL		32	23	13	18	225	340	12	663
		4.8	3.5	2.0	2.7	33.9	51.3	1.8	100.0

NUMBER OF MISSING OBSERVATIONS = 605

TABLE 2.6

SAMPLE SIZE COMPARISON BY VOCATIONAL PROGRAM

	Younger Adult Workers		National Vocational Education Enrollment[a]	
Program Area	Frequency	Percent[b]	Frequency	Percent
Agriculture	32	4.9	997,497	11.1
Marketing	23	3.5	563,456	6.3
Health	13	2.0	830,470	9.3
Occupational Home Economics	18	2.7	427,455	4.8
Business and Office	340	52.3	2,863,442	31.9
Trade and Industry	225	34.5	3,284,143	36.6
Total	651	99.9	8,966,463	100.0

NOTES:

[a] National Center for Research in Vocational Education. The Status of Vocational Education School Year 1976-77, Columbus, OH: Ohio State University, 1979.

[b] These percentages are based only on individuals who designated one of the six specific program areas. Hence they differ slightly from the percentages shown in Table 2.3.

TABLE 2.7

RACE AND SEX BY CURRICULUM

YOUNGER ADULT WORKERS

RS		CUR VOCATIONAL 1	COLLEGE PREP 3	GENERAL 4	ROW TOTAL
WHITE MALE	1	253 46.4 37.9 20.2	187 34.3 51.2 15.0	105 19.3 48.4 8.4	545 43.6
WHITE FEMALE	2	311 59.8 46.6 24.9	135 26.0 37.0 10.8	74 14.2 34.1 5.9	520 41.6
MINOR MALE	3	57 60.0 8.5 4.6	21 22.1 5.8 1.7	17 17.9 7.8 1.4	95 7.6
MIN FEM	4	47 52.2 7.0 3.8	22 24.4 6.0 1.8	21 23.3 9.7 1.7	90 7.2
COLUMN TOTAL		668 53.4	365 29.2	217 17.4	1250 100.0

NUMBER OF MISSING OBSERVATIONS = 18

TABLE 2.8

RACE AND SEX BY VOCATIONAL PROGRAM

YOUNGER ADULT WORKERS

RS	V23	AGRICULTURE	MKTG,D.E	HEALTH	HOME ECONOMICS	TRADE OR INDUSTR	BUSINESS OFFICE	OTHER	ROW TOTAL
		1	2	3	4	5	6	7	
WHITE MALE	1	25	9	1	1	163	39	8	246
	ROW PCT	10.2	3.7	0.4	0.4	66.3	15.9	3.3	37.6
	COL PCT	80.6	40.9	7.7	5.6	72.4	11.7	66.7	
	TOT PCT	3.8	1.4	0.2	0.2	24.9	6.0	1.2	
WHITE FEMALE	2	2	13	11	11	18	249	3	307
	ROW PCT	0.7	4.2	3.6	3.6	5.9	81.1	1.0	46.9
	COL PCT	6.5	59.1	84.6	61.1	8.0	74.6	25.0	
	TOT PCT	0.3	2.0	1.7	1.7	2.7	38.0	0.5	
MINOR MALE	3	3	0	0	3	39	10	1	56
	ROW PCT	5.4	0.0	0.0	5.4	69.6	17.9	1.8	8.5
	COL PCT	9.7	0.0	0.0	16.7	17.3	3.0	8.3	
	TOT PCT	0.5	0.0	0.0	0.5	6.0	1.5	0.2	
MIN FEM	4	1	0	1	3	5	36	0	46
	ROW PCT	2.2	0.0	2.2	6.5	10.9	78.3	0.0	7.0
	COL PCT	3.2	0.0	7.7	16.7	2.2	10.8	0.0	
	TOT PCT	0.2	0.0	0.2	0.5	0.8	5.5	0.0	
COLUMN TOTAL		31	22	13	18	225	334	12	655
		4.7	3.4	2.0	2.7	34.4	51.0	1.8	100.0

NUMBER OF MISSING OBSERVATIONS = 613

TABLE 2.9

SES BY CURRICULUM

YOUNGER ADULT WORKERS

SES	CUR	1 VOCATIONAL	3 COLLEGE PREP	4 GENERAL	ROW TOTAL
VERY LOW	1	10	1	7	18
		55.6	5.6	38.9	1.4
		1.5	0.3	3.2	
		0.8	0.1	0.6	
LOW	2	82	29	36	147
		55.8	19.7	24.5	11.6
		12.1	7.9	16.5	
		6.5	2.3	2.9	
AVERAGE	3	520	238	154	912
		57.0	26.1	16.9	72.3
		76.9	64.7	70.6	
		41.2	18.9	12.2	
HIGH	4	57	82	17	156
		36.5	52.6	10.9	12.4
		8.4	22.3	7.8	
		4.5	6.5	1.3	
VERY HIGH	5	7	18	4	29
		24.1	62.1	13.8	2.3
		1.0	4.9	1.8	
		0.6	1.4	0.3	
COLUMN TOTAL		676	368	218	1262
		53.6	29.2	17.3	100.0

NUMBER OF MISSING OBSERVATIONS = 6

TABLE 2.10

SES BY VOCATIONAL CURRICULUM

YOUNGER ADULT WORKERS

V23

SES	COUNT / ROW PCT / COL PCT / TOT PCT	1 AGRICULTURE	2 MKTG,D.E	3 HEALTH	4 HOME ECONOMICS	5 TRADE OR INDUSTR	6 BUSINESS OFFICE	7 OTHER	ROW TOTAL
1 VERY LOW		1	0	1	0	6	2	0	10
		10.0	0.0	10.0	0.0	60.0	20.0	0.0	1.5
		3.1	0.0	7.7	0.0	2.7	0.6	0.0	
		0.2	0.0	0.2	0.0	0.9	0.3	0.0	
2 LOW		6	4	0	6	27	34	1	78
		7.7	5.1	0.0	7.7	34.6	43.6	1.3	11.8
		18.8	17.4	0.0	33.3	12.0	10.0	8.3	
		0.9	0.6	0.0	0.9	4.1	5.1	0.2	
3 AVERAGE		25	16	9	9	171	272	9	511
		4.9	3.1	1.8	1.8	33.5	53.2	1.8	77.1
		78.1	69.6	69.2	50.0	76.0	80.0	75.0	
		3.8	2.4	1.4	1.4	25.8	41.0	1.4	
4 HIGH		0	3	3	3	18	28	2	57
		0.0	5.3	5.3	5.3	31.6	49.1	3.5	8.6
		0.0	13.0	23.1	16.7	8.0	8.2	16.7	
		0.0	0.5	0.5	0.5	2.7	4.2	0.3	
5 VERY HIGH		0	0	0	0	3	4	0	7
		0.0	0.0	0.0	0.0	42.9	57.1	0.0	1.1
		0.0	0.0	0.0	0.0	1.3	1.2	0.0	
		0.0	0.0	0.0	0.0	0.5	0.6	0.0	
	COLUMN TOTAL	32	23	13	18	225	340	12	663
		4.8	3.5	2.0	2.7	33.9	51.3	1.8	100.0

NUMBER OF MISSING OBSERVATIONS = 605

TABLE 2.11

OCCUPATION OF CHIEF WAGE EARNER

BY CURRICULUM

YOUNGER ADULT WORKERS

X 19		CUR VOCATIONAL 1	COLLEGE PREP 3	GENERAL 4	ROW TOTAL
PROFESSIONAL	1	75 41.9 11.1 5.9	82 45.8 22.3 6.5	22 12.3 10.1 1.7	179 14.2
MANAGERIAL	2	79 47.0 11.7 6.3	60 35.7 16.3 4.8	29 17.3 13.3 2.3	168 13.3
SALES	3	42 50.6 6.2 3.3	31 37.3 8.4 2.5	10 12.0 4.6 0.8	83 6.6
CLERICAL	4	33 56.9 4.9 2.6	17 29.3 4.6 1.3	8 13.8 3.7 0.6	58 4.6
CRAFTS	5	158 53.7 23.4 12.5	74 25.2 20.1 5.9	62 21.1 28.4 4.9	294 23.3
OPERATIVES	6	102 56.4 15.1 8.1	41 22.7 11.1 3.2	38 21.0 17.4 3.0	181 14.3
LABOR	7	44 60.3 6.5 3.5	13 17.8 3.5 1.0	16 21.9 7.3 1.3	73 5.8
FARM	8	46 63.9 6.8 3.6	11 15.3 3.0 0.9	15 20.8 6.9 1.2	72 5.7
SERVICE	9	50 62.5 7.4 4.0	22 27.5 6.0 1.7	8 10.0 3.7 0.6	80 6.3
DK-NA	99	47 63.5 7.0 3.7	17 23.0 4.6 1.3	10 13.5 4.6 0.8	74 5.9
	COLUMN TOTAL	676 53.6	368 29.2	218 17.3	1262 100.0

NUMBER OF MISSING OBSERVATIONS = 6

TABLE 2.12

LOCALE BY CURRICULUM

YOUNGER ADULT WORKERS

LOCALE	CUR COUNT / ROW PCT / COL PCT / TOT PCT	VOCATIONAL 1	COLLEGE PREP 3	GENERAL 4	ROW TOTAL
URBAN	1	473 51.6 70.1 37.5	294 32.1 80.1 23.3	149 16.3 68.3 11.8	916 72.7
RURAL	2	202 58.7 29.9 16.0	73 21.2 19.9 5.8	69 20.1 31.7 5.5	344 27.3
COLUMN TOTAL		675 53.6	367 29.1	218 17.3	1260 100.0

NUMBER OF MISSING OBSERVATIONS = 8

TABLE 2.13

LOCALE BY VOCATIONAL PROGRAM

YOUNGER ADULT WORKERS

LOCALE	V23	1 AGRICULTURE	2 MKTG,D.E	3 HEALTH	4 HOME ECONOMICS	5 TRADE OR INDUSTR	6 BUSINESS OFFICE	7 OTHER	ROW TOTAL
URBAN	1	15	16	7	14	156	246	11	465
		3.2	3.4	1.5	3.0	33.5	52.9	2.4	70.2
		46.9	69.6	53.8	77.8	69.6	72.4	91.7	
		2.3	2.4	1.1	2.1	23.6	37.2	1.7	
RURAL	2	17	7	6	4	68	94	1	197
		8.6	3.6	3.0	2.0	34.5	47.7	0.5	29.8
		53.1	30.4	46.2	22.2	30.4	27.6	8.3	
		2.6	1.1	0.9	0.6	10.3	14.2	0.2	
COLUMN TOTAL		32	23	13	18	224	340	12	662
		4.8	3.5	2.0	2.7	33.8	51.4	1.8	100.0

NUMBER OF MISSING OBSERVATIONS = 606

TABLE 2.14

AGE BY CURRICULUM

YOUNGER ADULT WORKERS

AGE	CUR	1 VOCATIONAL	3 COLLEGE PREP	4 GENERAL	ROW TOTAL
19-22 YRS	1	167	41	40	248
		67.3	16.5	16.1	19.7
		24.8	11.2	18.4	
		13.3	3.3	3.2	
23-25 YRS	2	152	72	45	269
		56.5	26.8	16.7	21.4
		22.6	19.6	20.7	
		12.1	5.7	3.6	
26-28 YRS	3	123	86	50	259
		47.5	33.2	19.3	20.6
		18.3	23.4	23.0	
		9.8	6.8	4.0	
29-31 YRS	4	119	80	49	248
		48.0	32.3	19.8	19.7
		17.7	21.8	22.6	
		9.5	6.4	3.9	
32-34 YRS	5	112	88	33	233
		48.1	37.8	14.2	18.5
		16.6	24.0	15.2	
		8.9	7.0	2.6	
COLUMN TOTAL		673	367	217	1257
		53.5	29.2	17.3	100.0

NUMBER OF MISSING OBSERVATIONS = 11

TABLE 2.15

AGE BY VOCATIONAL PROGRAM

YOUNGER ADULT WORKERS

V23

AGE		1 AGRICULTURE	2 MKTG,D.E	3 HEALTH	4 HOME ECONOMICS	5 TRADE OR INDUSTR	6 BUSINESS OFFICE	7 OTHER	ROW TOTAL
19-22 YRS	1	10	11	3	5	62	68	4	163
		6.1	6.7	1.8	3.1	38.0	41.7	2.5	24.7
		31.3	47.8	23.1	27.8	27.6	20.2	33.3	
		1.5	1.7	0.5	0.8	9.4	10.3	0.6	
23-25 YRS	2	6	4	5	8	51	70	3	147
		4.1	2.7	3.4	5.4	34.7	47.6	2.0	22.3
		18.8	17.4	38.5	44.4	22.7	20.8	25.0	
		0.9	0.6	0.8	1.2	7.7	10.6	0.5	
26-28 YRS	3	7	3	3	0	42	63	3	121
		5.8	2.5	2.5	0.0	34.7	52.1	2.5	18.3
		21.9	13.0	23.1	0.0	18.7	18.7	25.0	
		1.1	0.5	0.5	0.0	6.4	9.5	0.5	
29-31 YRS	4	7	4	2	4	29	70	1	117
		6.0	3.4	1.7	3.4	24.8	59.8	0.9	17.7
		21.9	17.4	15.4	22.2	12.9	20.8	8.3	
		1.1	0.6	0.3	0.6	4.4	10.6	0.2	
32-34 YRS	5	2	1	0	1	41	66	1	112
		1.8	0.9	0.0	0.9	36.6	58.9	0.9	17.0
		6.3	4.3	0.0	5.6	18.2	19.6	8.3	
		0.3	0.2	0.0	0.2	6.2	10.0	0.2	
COLUMN TOTAL		32	23	13	18	225	337	12	660
		4.8	3.5	2.0	2.7	34.1	51.1	1.8	100.0

NUMBER OF MISSING OBSERVATIONS = 606

TABLE 2.16

MARITAL STATUS AND AGE BY CURRICULUM

YOUNGER ADULT WORKERS

MALE

V137		CUR 1 VOCATIONAL	COLLEGE PREP	GENERAL	ROW TOTAL
		1	3	4	
MARRIED	1	161	115	75	351
		45.9	32.8	21.4	54.4
		51.6	54.8	61.0	
		25.0	17.8	11.6	
WIDOWED	2	2	0	0	2
		100.0	0.0	0.0	0.3
		0.6	0.0	0.0	
		0.3	0.0	0.0	
DIVORCED	3	16	12	11	39
		41.0	30.8	28.2	6.0
		5.1	5.7	8.9	
		2.5	1.9	1.7	
SEPARATED	4	5	2	2	9
		55.6	22.2	22.2	1.4
		1.6	1.0	1.6	
		0.8	0.3	0.3	
NEVER MARRIED	5	128	81	35	244
		52.5	33.2	14.3	37.8
		41.0	38.6	28.5	
		19.8	12.6	5.4	
COLUMN TOTAL		312	210	123	645
		48.4	32.6	19.1	100.0

FEMALE

V137		CUR 1 VOCATIONAL	COLLEGE PREP	GENERAL	ROW TOTAL
		1	3	4	
MARRIED	1	184	72	45	301
		61.1	23.9	15.0	48.8
		50.5	45.6	47.4	
		29.8	11.7	7.3	
WIDOWED	2	1	0	1	2
		50.0	0.0	50.0	0.3
		0.3	0.0	1.1	
		0.2	0.0	0.2	
DIVORCED	3	49	11	16	76
		64.5	14.5	21.1	12.3
		13.5	7.0	16.8	
		7.9	1.8	2.6	
SEPARATED	4	9	4	4	17
		52.9	23.5	23.5	2.8
		2.5	2.5	4.2	
		1.5	0.6	0.6	
NEVER MARRIED	5	120	71	29	220
		54.5	32.3	13.2	35.7
		33.0	44.9	30.5	
		19.4	11.5	4.7	
NA	9	1	0	0	1
		100.0	0.0	0.0	0.2
		0.3	0.0	0.0	
		0.2	0.0	0.0	
COLUMN TOTAL		364	158	95	617
		59.0	25.6	15.4	100.0

NUMBER OF MISSING OBSERVATIONS = 6

TABLE 2.17

PHYSICAL LIMITATIONS BY CURRICULUM

YOUNGER ADULT WORKERS

V139	CUR COUNT ROW PCT COL PCT TOT PCT	VOCATIONAL 1	COLLEGE PREP 3	GENERAL 4	ROW TOTAL
1 VISUALLY IMPAIRE		0 0.0 0.0 0.0	2 66.7 0.6 0.2	1 33.3 0.5 0.1	3 0.2
2 HEARING IMPAIRED		4 80.0 0.6 0.3	1 20.0 0.3 0.1	0 0.0 0.0 0.0	5 0.4
3 ORTHOPED IMPAIRE		8 61.5 1.2 0.6	4 30.8 1.1 0.3	1 7.7 0.5 0.1	13 1.0
4 SPEECH IMPAIRED		1 33.3 0.2 0.1	0 0.0 0.0 0.0	2 66.7 0.9 0.2	3 0.2
5 OTHER		7 63.6 1.1 0.6	2 18.2 0.6 0.2	2 18.2 0.9 0.2	11 0.9
7 NONE		645 53.5 97.0 52.0	352 29.2 97.5 28.4	208 17.3 97.2 16.8	1205 97.2
COLUMN TOTAL		665 53.6	361 29.1	214 17.3	1240 100.0

NUMBER OF MISSING OBSERVATIONS = 28

TABLE 2.18

PHYSICAL LIMITATIONS BY VOCATIONAL PROGRAM

YOUNGER ADULT WORKERS

V139	V23	1 AGRICULTURE	2 MKTG,D.E	3 HEALTH	4 HOME ECONOMICS	5 TRADE OR INDUSTR	6 BUSINESS OFFICE	7 OTHER	ROW TOTAL
2 HEARING IMPAIRED	COUNT	1	0	0	0	3	0	0	4
	ROW PCT	25.0	0.0	0.0	0.0	75.0	0.0	0.0	0.6
	COL PCT	3.1	0.0	0.0	0.0	1.4	0.0	0.0	
	TOT PCT	0.2	0.0	0.0	0.0	0.5	0.0	0.0	
3 ORTHOPED. IMPAIRE	COUNT	0	0	1	0	4	3	0	8
	ROW PCT	0.0	0.0	12.5	0.0	50.0	37.5	0.0	1.2
	COL PCT	0.0	0.0	8.3	0.0	1.8	0.9	0.0	
	TOT PCT	0.0	0.0	0.2	0.0	0.6	0.5	0.0	
4 SPEECH IMPAIRED	COUNT	0	0	0	0	1	0	0	1
	ROW PCT	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.2
	COL PCT	0.0	0.0	0.0	0.0	0.5	0.0	0.0	
	TOT PCT	0.0	0.0	0.0	0.0	0.2	0.0	0.0	
5 OTHER	COUNT	1	0	0	1	3	2	0	7
	ROW PCT	14.3	0.0	0.0	14.3	42.9	28.6	0.0	1.1
	COL PCT	3.1	0.0	0.0	5.6	1.4	0.6	0.0	
	TOT PCT	0.2	0.0	0.0	0.2	0.5	0.3	0.0	
7 NONE	COUNT	30	23	11	17	210	329	12	632
	ROW PCT	4.7	3.6	1.7	2.7	33.2	52.1	1.9	96.9
	COL PCT	93.8	100.0	91.7	94.4	95.0	98.5	100.0	
	TOT PCT	4.6	3.5	1.7	2.6	32.2	50.5	1.8	
COLUMN TOTAL		32	23	12	18	221	334	12	652
		4.9	3.5	1.8	2.8	33.9	51.2	1.8	100.0

NUMBER OF MISSING OBSERVATIONS = 616

TABLE 2.19

TEACHER ASSISTANCE ON FIRST JOB

BY VOCATIONAL PROGRAM

YOUNGER ADULT WORKERS

V29	COUNT / ROW PCT / COL PCT / TOT PCT	V23 AGRICULTURE 1	MKTG,D.E 2	HEALTH 3	HOME ECONOMICS 4	TRADE OR INDUSTR 5	BUSINESS OFFICE 6	OTHER 7	ROW TOTAL
YES	1	3	6	4	5	47	61	1	127
		2.4	4.7	3.1	3.9	37.0	48.0	0.8	19.2
		9.4	26.1	30.8	27.8	20.9	17.9	8.3	
		0.5	0.9	0.6	0.8	7.1	9.2	0.2	
NO	2	29	17	9	13	178	278	11	535
		5.4	3.2	1.7	2.4	33.3	52.0	2.1	80.7
		90.6	73.9	69.2	72.2	79.1	81.8	91.7	
		4.4	2.6	1.4	2.0	26.8	41.9	1.7	
DK-NA	9	0	0	0	0	0	1	0	1
		0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.2
		0.0	0.0	0.0	0.0	0.0	0.3	0.0	
		0.0	0.0	0.0	0.0	0.0	0.2	0.0	
	COLUMN TOTAL	32	23	13	18	225	340	12	663
		4.8	3.5	2.0	2.7	33.9	51.3	1.8	100.0

NUMBER OF MISSING OBSERVATIONS = 605

TABLE 2.20

TEACHER ASSISTANCE ON FIRST JOB

BY CURRICULUM

YOUNGER ADULT WORKERS

V29	CUR COUNT / ROW PCT / COL PCT / TOT PCT	1 VOCATIONAL	3 COLLEGE PREP	4 GENERAL	ROW TOTAL
YES	1	129	14	13	156
		82.7	9.0	8.3	12.4
		19.1	3.8	6.0	
		10.2	1.1	1.0	
NO	2	546	354	204	1104
		49.5	32.1	18.5	87.5
		80.8	96.2	93.6	
		43.3	28.1	16.2	
DK-NA	9	1	0	1	2
		50.0	0.0	50.0	0.2
		0.1	0.0	0.5	
		0.1	0.0	0.1	
COLUMN TOTAL		676	368	218	1262
		53.6	29.2	17.3	100.0

NUMBER OF MISSING OBSERVATIONS = 6

TABLE 2.21

OCCUPATIONAL INFORMATION RECEIVED

BY CURRICULUM

YOUNGER ADULT WORKERS

V30	CUR COUNT ROW PCT COL PCT TOT PCT	VOCATIONAL 1	COLLEGE PREP 3	GENERAL 4	ROW TOTAL
YES	1	320 71.3 47.3 25.4	72 16.0 19.6 5.7	57 12.7 26.1 4.5	449 35.6
NO	2	350 43.4 51.8 27.7	295 36.6 80.2 23.4	161 20.0 73.9 12.8	806 63.9
DK-NA	9	6 85.7 0.9 0.5	1 14.3 0.3 0.1	0 0.0 0.0 0.0	7 0.6
	COLUMN TOTAL	676 53.6	368 29.2	218 17.3	1262 100.0

NUMBER OF MISSING OBSERVATIONS = 6

TABLE 2.22

OCCUPATIONAL INFORMATION RECEIVED

BY VOCATIONAL PROGRAM

YOUNGER ADULT WORKERS

V30	V23	1 AGRICULTURE	2 MKTG,D.E	3 HEALTH	4 HOME ECONOMICS	5 TRADE OR INDUSTR	6 BUSINESS OFFICE	7 OTHER	ROW TOTAL
YES	1	18	14	3	11	99	161	6	312
		5.8	4.5	1.0	3.5	31.7	51.6	1.9	47.1
		56.3	60.9	23.1	61.1	44.0	47.4	50.0	
		2.7	2.1	0.5	1.7	14.9	24.3	0.9	
NO	2	14	9	10	7	124	175	6	345
		4.1	2.6	2.9	2.0	35.9	50.7	1.7	52.0
		43.8	39.1	76.9	38.9	55.1	51.5	50.0	
		2.1	1.4	1.5	1.1	18.7	26.4	0.9	
DK-NA	9	0	0	0	0	2	4	0	6
		0.0	0.0	0.0	0.0	33.3	66.7	0.0	0.9
		0.0	0.0	0.0	0.0	0.9	1.2	0.0	
		0.0	0.0	0.0	0.0	0.9	0.6	0.0	
COLUMN TOTAL		32	23	13	18	225	340	12	663
		4.8	3.5	2.0	2.7	33.9	51.3	1.8	100.0

NUMBER OF MISSING OBSERVATIONS = 605

TABLE 2.23

DISTRIBUTION OF SAMPLES BY CURRICULUM
(IN PERCENTAGES)

	NLS-Girls (1970) (n = 5,159)	NLS-Boys (1971) (n = 5,225)	Class of '72 (n = 21,222)
Vocational	22.0	14.1	18.1
College Prep	32.9	36.5	34.7
General	45.0	49.3	47.1

TABLE 2.24

DISTRIBUTION OF SAMPLES BY VOCATIONAL PROGRAMS
(IN PERCENTAGES)

	NLS-Girls (1968) (n =992)	NLS-Boys (1966) (n =603)	Class of '72 (n = 4,987)
Agriculture	-	-	6.8
Marketing	.7	-	10.4
Health	-	-	4.0
Home Economics	3.3	-	4.8
Business	89.4	22.7	48.6
Trade	6.6	77.3	25.5

TABLE 3.1

ITEMS AFFECTED PROXIMATELY
BY VOCATIONAL EDUCATION

Work Habits

Reliability

Self-discipline

Safety consciousness

Job skills

Job-seeking skills

Aspirations

Self-image

Retention

Attitudes toward school

Continuing education

Basic skills

Ability to learn

Interpersonal skills

Communication

Leadership

TABLE 3.2

FACTORS AFFECTING LABOR MARKET OUTCOMES

Contextual Attributes

- Region
- "Environment"
- Community SES

High School Experience

- Basic skills
- Curriculum satisfaction (would repeat curriculum)
- Vocational
  - Program Area
  - Specific Jobs
- Job skills
- Job-seeking skills
- Employability skills
- Placement assistance
- Intensity of study
- Certificate

Individual Attributes

- Ability
- Motivation
- Sex
- Race
- Family SES
- Physical limitations
- Marital status
- Age

Labor Market Conditions

- Industry Mix
- Labor Demand
- Region
- Urban/Rural Location

Out of Labor Force

- Family
- Military
- (Military training)

TABLE 3.2 (cont.)

Postsecondary

- Business, trade, technical program, private school
- Business, trade, technical program, public community college or technical institute
- Four-year college
- Advanced degree
- Government training programs

For each:

- Participation
- Length of participation
- Completion
- Certificate
- Use on job

Labor-Market Participation

Employment (current)

- Industry
- Occupation
- Unionization
- Pay
- Hours worked per week
- Weeks worked per year
- Relatedness to training
- Tenure
- Prestige

General Work History

- Apprenticeship
- Employer-sponsored training
- Work experience
- Number of jobs
- Months on longest job
- Recent unemployment

TABLE 4.1

MEAN HOURLY EARNINGS, MOST RECENT JOB
BY RACE, SEX, AND CURRICULUM,
YOUNGER ADULT WORKERS

Race-Sex Group	Sample	Curriculum: Vocational	College Prep	General	All Curricula
White Male	ALL	$7.55 (183)	$8.94 (124)	$7.56 (85)	$7.99 (392)
	NO4COL	7.49 (159)	8.36 (45)	7.58 (59)	7.66 (263)
	NOCOL	7.27 (105)	9.80 (19)	7.13 (40)	7.53 (164)
White Female	ALL	5.62 (231)	6.73 (86)	5.66 (53)	5.88 (370)
	NO4COL	5.63 (190)	5.94 (25)	4.99 (39)	5.56 (254)
	NOCOL	5.51 (117)	5.99 (12)	4.40 (22)	5.39 (151)
Minority Male	ALL	6.86 (41)	8.88 (13)	6.30 (13)	7.14 (67)
	NO4COL	6.63 (32)	8.11 (5)	5.49 (9)	6.57 (46)
	NOCOL	5.54 (20)	7.98 (4)	5.30 (6)	5.82 (30)
Minority Female	ALL	5.69 (34)	6.32 (15)	4.73 (15)	5.61 (64)
	NO4COL	5.80 (30)	4.67 (6)	4.63 (12)	5.37 (48)
	NOCOL	5.93 (21)	4.48 (5)	4.63 (10)	5.37 (36)
All Groups	ALL	6.45 (489)	7.97 (238)	6.60 (166)	6.88 (893)
	NO4COL	6.44 (411)	7.32 (81)	6.27 (119)	6.52 (611)
	NOCOL	6.25 (263)	7.81 (40)	5.90 (78)	6.34 (381)

Note: Numbers in parentheses indicate number of respondents in the cell.

TABLE 4.2

MEAN WEEKLY EARNINGS, MOST RECENT JOB
BY RACE, SEX, AND CURRICULUM
YOUNGER ADULT WORKERS

Race-Sex Group	Sample	Curriculum: Vocational	College Prep	General	All
White Male	ALL	$341	$410	$327	$360
	NO4COL	340	376	331	344
	NOCOL	334	416	314	339
White Female	ALL	230	270	226	239
	NO4COL	232	239	194	227
	NOCOL	230	240	164	221
Minority Male	ALL	309	364	303	318
	NO4COL	299	307	286	297
	NOCOL	231	319	324	261
Minority Female	ALL	214 (33)	240	187	214 (63)
	NO4COL	218 (29)	173	192	203 (47)
	NOCOL	219 (20)	162	191	200 (36)
All Groups	ALL	277 (488)	346	280	296 (892)
	NO4COL	278 (410)	314	268	281 (610)
	NOCOL	271 (20)	322	255	273 (380)

Note: Numbers in parentheses show number of respondents in the cell where the frequencies differ from Table 4.1.

TABLE 4.3

MEAN EARNINGS, MOST RECENT JOB
BY RACE, SEX, AND CURRICULUM
CLASS OF '72
SAMPLE: ALL

Race-Sex Groups	Curriculum: Vocational	College Prep	General	All Curricula
Hourly Earnings				
White Male	$7.45 (986)	$7.53 (2498)	$7.39 (1976)	$7.46 (5460)
White Female	5.49 (1060)	6.27 (1993)	5.36 (1354)	5.80 (4407)
Minority Male	7.01 (378)	7.23 (351)	6.79 (472)	6.99 (1201)
Minority Female	5.29 (412	6.04 (409)	5.23 (449)	5.51 (1270)
All Groups	6.34 (2836)	6.92 (5251)	6.45 (4251)	6.62 (12338)
Weekly Earnings				
White Male	$332.12 (1051)	$324.42 (2710)	$319.92 (2089)	$324.20 (5850)
White Female	209.46 (1143)	238.35 (2183)	202.81 (1483)	220.52 (4809)
Minority Male	301.29 (390)	299.12 (372)	286.25 (494)	294.73 (1256)
Minority Female	204.61 (432)	231.91 (439)	199.06 (482)	211.49 (1353)
All Groups	263.38 (3016)	282.71 (5704)	265.26 (4548)	272.34 (13268)

Note: Numbers in parentheses indicate the number of respondents in the cell.

TABLE 4.4

MEAN EARNINGS, MOST RECENT JOB
BY RACE, SEX, AND CURRICULUM
NLS-LME

Race-Sex Group	Sample	Curriculum: Vocational	Business	College Prep	General	All Curricula
Hourly Earnings						
White Male	ALL	$6.7[illegible] (145)	$6.55 (60)	$6.83 (720)	$6.35 (662)	$6.61 (1587)
	NOCOL	6.59 (102)	6.87 (40)	6.45 (100)	6.25 (358)	6.38 (600)
White Female	All	3.60 (28)	4.18 (242)	4.70 (561)	3.93 (394)	4.32 (1225)
	NOCOL	3.17 (22)	4.14 (202)	4.05 (112)	3.75 (261)	3.92 (597)
Minority Male	ALL	5.20 (44)	5.3[illegible] (11)	6.00 (93)	5.14 (204)	5.38 (352)
	NOCOL	5.15 (32)	5.50 (8)	5.48 (20)	4.81 (129)	4.97 (189)
Minority Female	ALL	3.27 (16)	4.03 (77)	4.72 (130)	3.80 (269)	4.06 (492)
	NOCOL	2.99 (14)	3.86 (53)	4.03 (27)	3.40 (172)	3.54 (266)
All Groups	ALL	5.81 (233)	4.55 (390)	5.80 (1504)	5.12 (1529)	5.38 (3656)
	NOCOL	5.58 (170)	4.49 (303)	5.08 (259)	4.81 (920)	4.87 (1652)
Weekly Earnings						
White Male	ALL	$284.13	$271.73	$298.79 (719)	$276.90	$287.29(1586)
	NOCOL	276.91	279.98	282.33	271.02	274.50
White Female	ALL	135.50	156.86	184.17	152.10	167.35
	NOCOL	118.81	155.80	153.60	142.30	148.12
Minority Male	ALL	212.99	222.29	249.04	213.03	222.83
	NOCOL	210.19	235.78	228.39	196.59	203.91
Minority Female	ALL	122.26	157.77	185.38	147.71	158.41
	NOCOL	111.41	151.54	164.03	133.70	139.16
All Groups	ALL	241.72	176.56	243.12(1503)	213.49	223.47
	NOCOL	230.26	173.56	210.17	198.39	198.96

TABLE 4.5

MEAN HOURLY EARNINGS, MOST RECENT JOB
BY RACE, SEX, AND PROGRAM AREA
YOUNGER ADULT WORKERS

Program Area	Race-Sex Class: White Male	White Female	Minority Male	Minority Female	All Classes
Agriculture	$7.35 (14)	$5.32 (2)	$6.36 (3)	$9.17 (1)	$7.09 (20)
Marketing	8.93 (8)	4.04 (10)	- (0)	- (0)	6.21 (18)
Health	4.46 (1)	7.19 (4)	- (0)	5.95 (1)	6.53 (6)
Home Economics	2.91 (1)	4.96 (9)	7.41 (3)	4.72 (2)	5.28 (15)
Trade and Industry	7.75 (123)	7.23 (9)	7.04 (26)	6.20 (3)	7.58 (161)
Business/ Office	6.93 (26)	5.60 (190)	6.31 (9)	5.64 (26)	5.77 (251)
Other	6.95 (6)	5.80 (3)	- (0)	- (0)	6.57 (9)
Total	7.58 (179)	5.60 (227)	6.86 (41)	5.75 (33)	6.46 (480)

Note: Numbers in parentheses [illegible] e number of respondents in cell.

TABLE 4.6
HOURLY EARNINGS, MOST RECENT JOB
ALL RESPONDENTS REPORTING EARNINGS
YOUNGER ADULT WORKERS

Explanation Variable	Equation (1) B (t)	Equation (2) B_m (t)	$B_f - B_m$ (t)
RACE	-.60 (2.35)**	1.02 (2.73)**	.77 (1.52)
SES	.16 (1.08)	.06 (.28)	.29 (1.01)
RURAL	-.88 (4.54)**	.78 (2.92)**	-.10 (.26)
EXPER	.09 (5.49)**	.13 (5.74)**	-.09 (2.87)**
CLPREP	.52 (1.95)*	.74 (2.09)**	-.50 (.92)
BSNS	-.13 (.49)	-.57 (1.16)	.58 (.97)
TRADE	.39 (1.35)	.36 (1.09)	1.10 (1.41)
MARKET	-.06 (.09)	1.48 (1.51)	-2.71 (2.07)**
OTHER	-.00 (.00)	.05 (.08)	-.14 (.16)
COLL4YR	.87 (3.40)**	.66 (1.88)*	.38 (.73)
ADVDEG	1.25 (3.00)**	1.74 (3.14)**	-1.14 (1.35)
EMPSP	.76 (3.60)**	.24 (.80)	1.13 (2.68)**
APP	.37 (1.36)	.49 (1.46)	-.13 (.22)
PVT	.60 (2.46)**	.86 (2.59)**	-.65 (1.32)
PCCT	.11 (.42)	-.33 (.88)	.77 (1.49)
GOVT	-1.23 (2.64)**	-1.36 (2.37)**	.13 (.17)
MOS	.00 (.00)	.10 (.28)	-.59 (.61)
FEMALE	-1.83 (8.99)**	-	
CONSTANT	6.32	6.38	-2.31 (2.29)**
n	1014		1014
R^2	.24		.27
$\bar{R}^2$	.22		.24

Note: In equation (1) all coefficients except the intercept are constrained to be equal for men and women. In equation (2), B_m is the coefficient for men and B_f that for women.

TABLE 4.7

EXPLANATORY VARIABLES USED IN REGRESSIONS

Abbreviation	Description
RACE	= 1 if respondent is nonwhite (except Oriental in the YAW data)
SES	= respondent's family socioeconomic status at age 14
RURAL	= 1 if respondent resides in rural area at interview date
EXPER	= potential labor force experience in years, age-18-years of postsecondary education
FEMALE	= 1 if respondent is female
CLPREP	= 1 if respondent's high school curriculum was college prep
BSNS	= 1 if respondent's high school curriculum was vocational with a specialty in business or commercial
TRADE	= 1 if curriculum was vocational, specialty in trade and industry
MARKET	= 1 if curriculum was vocational, specialty in distributive education
OTHER	= 1 if curriculum was vocational, specialty in agriculture, health, or occupational home economics
COLL4YR	= 1 if respondent completed a 4-year college program
ADVDEG	= 1 if respondent obtained a masters or other advanced degree
EMPSP	= 1 if respondent completed a formal training program (beyond OJT) sponsored by the employer
APP	= 1 if respondent completed an apprenticeship program
PVT	= 1 if respondent completed a program at a private 2-year college or technical institute (YAW only)
PCCT	= 1 if respondent completed a program at a public community college or 2-year technical institute (YAW only)
GOVT	= 1 if respondent completed a government training program such as CETA, Job Corps, or WIN
MOS	= 1 if respondent completed a military training program related to some civilian occupation
UNION	= 1 if respondent reports that wages on his/her job were set through collective bargaining
NJOBS	= number of full-time regular jobs respondent reports having held since high school graduation (YAW only)
LONGEST	= duration in years of the longest job held by respondent (YAW only)
TENURE	= duration in years of the job being examined in the equation (unless otherwise indicated)
MDTC	= 1 if calculation of TENURE was not possible because respondent could not recall starting or leaving date (YAW only)

TABLE 4.7 (cont.)

Abbreviation	Description
VOCATIONAL	= 1 if respondent had a high school vocational education curriculum in an area other than business or commercial (NLS-LME only)
VT2YR	= 1 if respondent completed a two-year vocational or technical program (Class of '72 only)
AGE	= respondent's age at the time for which the dependent variable applies (NLS-LME only)
AGESQ	= AGE^2
UNEMP	= country unemployment rate at the time of the applicable job (NLS-LME only)
CITYCEN	= 1 if respondent resides in a central city area (NLS-LME only)
HSC16	= 1 if respondent completed exactly 16 years of education (NLS-LME only)
HSC16+	= 1 if respondent completed more than 16 years of education (NLS-LME only)
CONSTR	= 1 if respondent's job is in the construction industry (NLS-LME only)
MFG	= 1 if respondent's job is in the manufacturing industry (NLS-LME only)
PROFTECH	= 1 if respondent's postsecondary training was in professional or technical areas (NLS-LME only)
MANAGE	= 1 if respondent's postsecondary training was in managerial skills (NLS-LME only)
CLRCSLS	= 1 if respondent's postsecondary training was in clerical or sales skills (NLS-LME only)
SKILLED	= 1 if respondent's postsecondary training was for manually skilled jobs (NLS-LME only)
OTHRTR	= 1 if respondent had postsecondary training in some area other than those listed above (NLS-LME only)
MARRIED	= 1 if respondent was married at the time of the interview
WIDOWED	= 1 if respondent was widowed at the time of the interview (NLS-LME only)
DIV/SEP	= 1 if respondent was divorced or separated at the time of the interview (NLS-LME only)
HOUSE	= 1 number of people in respondent's household at the time of the relevant job (NLS-LME only)
MDHOUSE	= 1 if HOUSE could not be calculated because of missing data (NLS-LME only)
JOBHUNT	= 1 if respondent received instruction in job hunting skills in high school (YAW only)
STUDY1,2,3,4	= 1 if respondent's high school vocational education skills were used substantially, a fair amount, a little, or not at all on the relevant job (YAW only)

TABLE 4.7 (cont.)

Abbreviation	Description
YEST1	= 1 if earnings were predicted from bracketed data (YAW only)
CERTIF	= 1 if respondent received a certificate from his/her high school vocational education (YAW only)
YEXP	= hourly earnings, most recent job
SATISFIED	= 1 if respondent reported that high school training prepared him/her very well or fairly well to get a job
REPEAT	= 1 if respondent would, in retrospect, take the same broadly-defined type of high school curriculum that he/she actually took
TCHAST	= 1 if respondent reports having received assistance from a teacher or staff member in finding his/her first regular full-time job
MORE (Same, Less)	= 1 if respondent spent more (about the same, or less) time on vocational courses than on other courses in high school
YBR2	= 1 if respondent earned from $3.00 to $5.99 per hour
YBR3	= 1 if respondent earned from $6.00 to $9.99 per hour
YBR4	= 1 if respondent earned $10.00 or more per hour

TABLE 4.8

EARNINGS, GIVEN EARNINGS BRACKET
FOR RESPONDENTS WHO ANSWERED THE DIRECT QUESTION ABOUT EARNINGS
YOUNGER ADULT WORKERS

	Men		Women	
	First Job	Most Recent Job	First Job	Most Recent Job
RACE	-.4885 (1.44)	-.1196 (.51)	-.1838 (.62)	-.0594 (.35)
SES	-.1429 (.79)	.1031 (.85)	-.1578 (.91)	.1605 (1.51)
RURAL	-.0822 (.30)	-.0523 (.31)	-.1599 (.61)	-.2850 (2.08)**
EXPER	-	.0209 (1.34)	-	.0116 (.97)
CLPREP	.3305 (1.12)	-	-.0295 (.10)	-
COLL4YR	.5556 (1.60)	.3834 (1.77)*	-.1856 (.62)	.2733 (1.52)
ADVDEG	.0276 (.05)	.1637 (.44)	1.2775 (2.69)**	.1349 (.43)
EMPSP	.4301 (1.37)	-.3249 (1.70)*	1.0513 (3.82)**	.4525 (3.10)**
PVT	.7899 (2.32)**	.1049 (.51)	.2636 (.74)	-.0892 (.47)
PCCT	-.1615 (.43)	.1882 (.81)	.0446 (.13)	.4413 (2.61)**
APP	-.3140 (.95)	.4698 (2.23)**	.1282 (.32)	.0364 (.15)
GVT	.5314 (.95)	.1777 (.49)	-.0853 (.13)	-.6560 (1.76)
MOS	.6080 (1.80)*	.2355 (1.05)	-1.2118 (1.80)*	-.1704 (.42)
UNION	.9841 (3.91)**	-.0906 (.56)	.1685 (.74)	.1239 (.95)
CERTIF	.2886 (.94)	-	-.2220 (.86)	-
TCHAST	-.7109 (1.48)	-	.3527 (.92)	-
MDTC	-	.1140 (.50)	-	.1255 (.62)
JOBHUNT	-.4469 (1.64)	-	-.2968 (1.31)	-
NJOBS	-	-.0026 (.06)	-	.0423 (1.40)
TENUREX12	.0149 (.91)	-.0013 (.54)	-.0068 (.76)	.0008 (.32)
LONGEST	-	-.0002 (.33)	-	.0015 (.65)
YBR2	1.8633 (6.94)**	1.5629 (2.35)**	1.8773 (8.50)**	.5399 (1.57)
YBR3	4.7056 (10.89)**	4.3992 (6.63)**	5.8399 (11.84)**	3.0555 (8.64)**
YBR4	11.6482 (13.59)**	8.8551 (13.21)**	11.8785 (8.77)**	6.8835 (17.34)**
CONSTANT	5.0089	2.4141	4.5105	3.1724
n	352	459	326	434
R^2	.56	.79	.49	.77
$\overline{R}^2$	.53	.78	.46	.76
F	20.66	82.37	14.80	68.92

TABLE 4.9

HOURLY EARNINGS, MOST RECENT JOB
REDUCED FORM SPECIFICATION, MEN
YOUNGER ADULT WORKERS

Samples:	ALL	NO4COL	NOCOL
Explanatory Variables:	B (t)	B (t)	B (t)
BSNS	-.44 (.76)	-.75 (1.12)	-.93 (1.08)
TRADE	.31 (.80)	.43 (1.03)	.57 (1.04)
MARKET+	1.45 (1.26)	2.62 (2.07)*	1.94 (1.06)
OTHER	-.07 (.10)	-1.08 (1.42)	-1.24 (1.40)
CLPREP	1.25 (3.16)**	.50 (.94)	1.95 (2.51)**
RACE	-1.01 (2.29)**	-1.01 (2.02)**	-1.63 (2.53)**
SES	.18 (.77)	.34 (1.17)	.21 (.52)
RURAL	-.80 (2.55)**	-.59 (1.67)*	-.13 (.29)
EXPER	.14 (5.12)**	.12 (4.13)**	.07 (2.08)**
CONSTANT	6.25	5.78	6.01
n	512	335	207
R^2	.12	.12	.14
$\bar{R}^2$	.10	.10	.10
F	7.35	4.92	3.66

TABLE 4.10

WEEKLY EARNINGS, MOST RECENT JOB
REDUCED FORM SPECIFICATION, MEN
YOUNGER ADULT WORKERS

Samples:	ALL	NO4COL	NOCOL
Explanatory Variables:	B (t)	B (t)	B (t)
BSNS	-15.62 (.49)	-40.82 (1.06)	-53.44 (1.06)
TRADE	27.73 (1.33)	29.88 (1.24)	24.19 (.76)
MARKET+	111.58 (1.78)*	183.62 (2.53)**	193.05 (1.83)*
OTHER	-2.43 (.06)	-54.20 (1.24)	-70.10 (1.37)
CLPREP	70.00 (3.25)**	19.69 (.64)	57.64 (1.27)
RACE	-52.72 (2.21)**	-52.81 (1.83)*	-83.96 (2.25)
SES	6.73 (.54)	16.43 (.98)	26.42 (1.11)
RURAL	-23.01 (1.35)	-16.32 (.80)	23.32 (.86)
EXPER	6.72 (4.58)**	5.36 (3.29)**	2.91 (1.50)
CONSTANT	267.72	248.25	221.13
N	13	35	207
R^2	.09	.09	.11
$\bar{R}^2$	.08	.06	.07
F	5.24	3.31	2.47

TABLE 4.11

HOURLY EARNINGS, MOST RECENT JOB
CLASS OF '72

	Men		Women	
Samples:	ALL	NOCOL	ALL	NOCOL
Explanatory Variables:	B (t)	B (t)	B (t)	B (t)
BSNS	-.60 (2.65)**	-.51 (1.31)	.22 (2.65)**	.48 (4.49)**
MARKET	.10 (.43)	.77 (2.03)**	-.29 (1.34)	-.05 (.18)
TRADE	.21 (1.71)*	-.15 (.72)	-.19 (.71)	.17 (.47)
OTHER	-.29 (1.35)	-.72 (2.15)**	-.36 (2.27)**	-.28 (1.45)
CLPREP	.12 (1.41)	.02 (.10)	.40 (6.03)**	.50 (3.55)**
RACE	-.02 (.56)	-.08 (1.04)	-.02 (.65)	.02 (.43)
RURAL	-.50 (6.80)**	-.23 (1.50)	-.73 (12.72)**	-.67 (7.36)**
SES	-.01 (2.62)**	-.01 (2.29)**	-.00 (.47)	-.00 (.34)
TENURE	.14 (9.01)**		.14 (11.06)**	
EXPER	.09 (3.85)**		.02 (1.32)	
APP	2.50 (9.08)**		1.75 (3.13)**	
EMPSP	.75 (6.33)**		.79 (8.79)**	
MOS	-1.12 (5.02)**		.07 (.20)	
COLL4YR	.24 (2.49)**		.95 (13.24)**	
ADVDEG	.72 (3.59)**		.92 (6.01)**	
VT2YR	.22 (1.36)**		.34 (4.52)**	
GOVT	-.54 (1.81)*		-.58 (2.86)**	
CONSTANT	6.53	7.65	4.95	5.16
n	6733	2044	5783	1685
R^2	.05	.01	.14	.06
$\overline{R}^2$	.05	.01	.13	.05
F	21.42	2.40	53.06	12.67

TABLE 4.12

WEEKLY EARNINGS, MOST RECENT JOB
CLASS OF '72

	Men		Women	
Samples:	ALL	NOCOL	ALL	NOCOL
Explanatory Variables:	B (t)	B (t)	B (t)	B (T)
BSNS	-23.02 (2.08)**	-27.74 (1.46)	9.9 (2.81)**	16.21 (3.60)**
MARKET	18.55 (1.64)*	69.60 (3.79)**	-10.11 (1.03)	-2.42 (.19)
TRADE	13.21 (2.18)**	-.41 (.04)	-5.41 (.48)	18.46 (1.18)
OTHER	-9.58 (.93)	-25.63 (1.57)	-13.29 (1.93)*	-4.09 (.50)
CLPREP	5.48 (1.34)	-.07 (.00)	12.44 (4.28)**	15.12 (2.60)**
RACE	-3.96 (2.31)**	-7.99 (2.06)**	.33 (.25)	1.92 (.85)
RURAL	-9.83 (2.77)**	4.43 (.60)	-31.92 (12.48)**	-28.88 (7.54)**
SES	-.44 (2.52)**	-.78 (2.53)**	-.02 (.13)	.06 (.30)
TENURE	7.10 (9.74)**		6.88 (12.44)**	
EXPER	3.87 (3.30)**		1.55 (1.99)**	
APP	91.48 (6.78)**		94.90 (3.88)**	
EMPSP	38.89 (6.73)**		36.72 (9.32)**	
MOS	-38.30 (3.54)**		13.56 (.88)	
COLL4YR	4.99 (1.05)		47.44 (15.32)**	
ADVDEG	20.00 (2.15)**		23.00 (3.52)**	
VT2YR	5.01 (1.11)		13.95 (4.21)**	
GOVT	-30.65 (2.10)**		19.78 (2.22)**	
CONSTANT	275.88	333.63	179.66	195.96
n	7180	2133	6277	1835
R^2	.04	.01	.13	.05
$\overline{R}^2$	.03	.01	.12	.04
F	16.13	3.48	53.01	10.88

TABLE 4.13

EARNINGS, MOST RECENT JOB
REDUCED-FORM SPECIFICATION, MEN
NLS-LME

	Hourly				Weekly			
Sample:	ALL		NOCOL		ALL		NOCOL	
Explanatory Variables	B	(t)	B	(t)	B	(t)	B	(t)
VOCATIONAL	.06	(.31)	-.01	(.04)	-3.17	(.35)	-5.85	(.58)
BSNS	-.03	(.10)	.24	(.63)	-13.62	(.95)	-6.73	(.41)
CLPREP	-.00	(.00)	.07	(.24)	-3.07	(.45)	2.25	(.20)
UNEMP	.04	(1.43)	.04	(.88)	2.61	(1.96)**	1.64	(.94)
AGE	1.23	(3.12)**	1.41	(2.43)**	48.35	(2.74)**	55.02	(2.22)**
AGESQ/100	-1.73	(2.55)**	2.18	(2.18)**	-64.88	(2.13)**	-83.84	(1.97)**
RACE	-.54	(3.04)**	-.90	(3.49)**	-33.11	(4.12)**	-48.32	(4.37)**
SES/100	1.48	(4.04)**	.77	(1.27)	66.27	(4.02)**	38.08	(1.47)
RURAL	-.89	(5.08)**	-.85	(3.56)**	-37.22	(4.74)**	-30.20	(2.96)**
CITYCEN	-.16	(1.19)	-.14	(.62)	-12.92	(2.08)**	-6.08	(.73)
SOUTH	-.46	(3.21)**	-.80	(3.66)**	-18.72	(2.89)**	-34.82	(3.76)**
HSC16	.05	(.30)	-		6.64	(.87)		
HSC16+	.16	(.77)	-		14.47	(1.51)		
CONSTANT	-15.56		-16.34		-630.01		-630.12	
n	1197		506		1197		506	
R^2	.22		.22		.25		.24	
$\bar{R}^2$	.21		.20		.24		.22	
F	25.03		12.60		29.71		13.98	

TABLE 4.14

EFFECTS OF RACE AND VOCATIONAL PROGRAM ON EARNINGS
MOST RECENT JOB, MEN
YOUNGER ADULT WORKERS

	Hourly		Weekly	
Samples:	ALL	NO4COL	ALL	NO4COL
Explanatory Variables	B (t)	B (t)	B (t)	B (t)
BUSINESS	-.35 (.53)	-.54 (.73)	-14.48 (.41)	-31.75 (.75)
MARKET+	1.45 (1.23)	2.67 (2.05)**	110.82 (1.73)*	184.00 (2.48)**
TRADE	.26 (.63)	.24 (.53)	24.00 (1.07)	19.45 (.75)
OTHER	-.23 (.29)	-1.12 (1.36)	-9.00 (.21)	-55.03 (1.17)
INTERACTION OF RACE AND :				
BSNS	-.89 (.59)	-1.03 (.59)	-21.70 (.27)	-35.01 (.35)
MARKET+	-	-	-	-
TRADE	.01 (.00)	.70 (.63)	11.09 (.21)	49.46 (6.78)
OTHER	.16 (.09)	-.75 (.31)	4.14 (.04)	-44.59 (.32)
RACE	-.93 (1.35)**	-1.27 (1.45)	-55.51 (1.49)	-73.87 (1.48)
CLPREP	1.30 (3.20)**	.60 (1.09)	72.24 (3.29)**	24.47 (.78)
RURAL	-.86 12.67)**	-.66 (1.82)	-26.11 (1.50)	-19.79 (.95)
SES	-.02 (.09)	.28 (.93)	-.70 (.05)	13.30 (.78)
CONSTANT	7.73	6.92	174.47	302.98
n	513	335	513	335
R^2	.07	.08	.06	.07
$\overline{R}^2$	.05	.05	.04	.03
F	3.48	2.47	2.75	2.07

TABLE 4.15

EFFECTS OF EXPERIENCE AND VOCATIONAL PROGRAM ON EARNINGS

MOST RECENT JOB, MEN

YOUNGER ADULT WORKERS

	Hourly		Weekly	
Samples:	ALL	NO4COL	ALL	NO4COL
Explanatory Variables	B (t)	B (t)	B (t)	B (t)
BSNS	-.90 (.91)	-1.68 (1.41)	-23.75 (.45)	-73.10 (1.06)
MARKET +	-4.31 (1.74)*	-4.34 (1.33)	-178.74 (1.34)	-110.93 (.59)
TRADE	.05 (.08)	.10 (.15)	-2.61 (.08)	.06 (.00)
OTHER	-1.13 (.71)	-2.89 (1.63)	-70.02 (.81)	-167.19 (1.63)
INTERACTION OF EXPERIENCE AND				
BSNS	.70 (.56)	.12 (.95)	1.08 (.17)	4.40 (.59)
MARKET+	.79 (2.63)**	.82 (2.33)**	39.68 (2.45)**	34.71 (1.71)*
TRADE	.05 (.74)	.04 (.67)	4.23 (1.19)	4.20 (1.09)
OTHER	.16 (.73)	.26 (1.11)	9.96 (.86)	16.28 (1.21)
CLPRFP	1.25 (3.18)**	.54 (1.00)	70.48 (3.30)**	22.60 (.73)
RACE	-.99 (2.27)**	-1.02 (2.05)**	-52.31 (2.20)**	-53.63 (1.86)
EXPER	.11 (3.56)**	.09 (2.65)**	5.22 (2.98)**	3.64 (1.85)
RURAL	-.79 (2.53)**	-.58 (1.64)	-21.93 (1.29)	-14.91 (.73)
SES	.18 (.77)	.32 (1.09)	6.00 (.48)	14.38 (.85)
CONSTANT	6.43	6.05	280.53	267.38
N	513	335	513	335
R^2	.13	.14	.11	.11
$\bar{R}^2$	.11	.10	.09	.07
F	5.73	4.01	4.66	2.96

TABLE 4.16

EARNINGS, MOST RECENT JOB
STRUCTURAL SPECIFICATION, MEN
YOUNGER ADULT WORKERS

Explanatory Variables	Hourly		Weekly	
	B(t)	B(t)	B(t)	B(t)
BSNS	-.57 (.99)	-.55 (.97)	-23.89 (.77)	-24.86 (.80)
MARKET+	1.48 (1.30)	1.56 (1.38)	110.71 (1.80)*	111.70 (1.81)*
TRADE	.36 (.94)	.30 (.79)	28.14 (1.37)	26.37 (1.28)
OTHER	.05 (.06)	-.06 (.08)	2.71 (.07)	-2.02 (.05)
CLPREP	.74 (1.80)*	.74 (1.82)*	42.11 (1.90)*	41.12 (1.86)*
SES	.06 (.24)	.08 (.35)	-.58 (.04)	.02 (.00)
RURAL	-.78 (2.51)**	-.80 (2.59)**	-22.02 (1.32)	-23.61 (1.40)
EXPER	.13 (4.94)**	.14 (3.92)**	6.25 (4.33)**	5.62 (3.54)**
RACE	-1.02 (2.35)**	-1.13 (2.30)**	-53.83 (2.30)**	-57.77 (2.46)**
COLL4YR	.66 (1.61)*	.83 (2.02)**	30.59 (1.38)	36.09 (1.62)
ADVDEG	1.74 (2.70)**	1.66 (2.61)**	98.35 (2.83)**	94.81 (2.73)**
EMPSP	.24 (.69)	.26 (.76)	29.23 (1.56)	29.57 (1.58)
APP	.49 (1.26)	.34 (.89)	29.95 (1.42)	26.52 (1.25)
PVT	.86 (2.23)**	.85 (2.24)**	49.99 (2.41)**	49.79 (2.41)**
PCCT	-.33 (.76)	-.20 (.46)	-25.57 (1.10)	-20.47 (.88)
GOVT	-1.36 (2.04)**	-1.08 (1.62)*	-74.65 (2.07)**	-64.10 (1.76)*
MOS	.10 (.24)	.15 (.36)	6.74 (.30)	7.95 (.35)
UNION		.81 (2.69)**		21.92 (1.34)
NJOBS		-.06 (.87)		-4.93 (1.27)
LONGEST		.00 (.14)		.43 (.53)
TENURE		.12 (2.23)**		4.40 (1.48)
MDTC		.38 (.92)		5.95 (.26)
CONSTANT	6.38	5.97	275.98	272.10
n	513	513	513	513
R^2	.16	.19	.15	.16
$\bar{R}^2$	.13	.16	.12	.12
F	5.60	5.29	5.04	4.32

TABLE 4.17

EARNINGS, MOST RECENT JOB
STRUCTURAL SPECIFICATION, MEN
NLS-LME

	Hourly		Weekly	
Samples:	ALL	NOCOL	ALL	NOCOL
Explanatory Variables:	B (t)	B (t)	B (t)	B (t)
VOCATIONAL	-.07 (.37)	-.18 (.78)	-7.36 (.83)	-11.75 (1.20)
BSNS	-.02 (.05)	.31 (.83)	-12.89 (.91)	-3.54 (.22)
CLPREP	.05 (.31)	.02 (.08)	-1.42 (.21)	.53 (.04)
UNEMP	.04 (1.41)	.02 (.59)	2.51 (1.78)*	1.06 (.62)
AGE	1.11 (2.91)**	.98 (1.77)*	43.49 (2.52)**	43.77 (1.83)*
AGESQ/100	1.61 (2.42)**	-1.50 (1.57)	-59.36 (1.99)**	-66.40 (1.61)
RACE	-.51 (2.89)**	-.90 (3.59)**	-30.92 (3.90)**	-47.64 (4.41)**
SES/100	1.58 (4.42)**	.82 (1.42)	67.95 (4.21)**	41.60 (1.67)*
RURAL	-.78 (4.50)**	-.65 (2.79)**	-31.51 (4.04)**	-21.69 (2.15)**
CITYCEN	-.13 (.92)	.04 (.19)	-10.40 (1.70)*	-1.42 (.15)
SOUTH	-.35 (2.44)**	-.55 (2.61)**	-16.18 (2.50)**	-27.20 (2.97)**
UNION	.65 (4.95)**	1.10 (6.12)**	18.26 (3.12)**	39.43 (5.06)**
CONSTR	1.14 (5.08)**	1.38 (4.53)**	37.61 (3.72)**	39.93 (3.03)**
MFG	.34 (2.56)**	.22 (1.16)	13.11 (2.18)**	2.88 (.36)
HSC16	.20 (1.18)	-	10.24 (1.34)	
HSC16+	.23 (1.11)	-	17.44 (1.85)*	
PROFTECH	.38 (2.60)**	.11 (.47)	17.47 (2.67)**	4.98 (.51)
MANAGE	1.05 (4.70)**	.91 (2.45)**	61.70 (6.14)**	49.55 (3.09)**
CLRCSLS	-.19 (.66)	-.11 (.28)	-13.83 (1.05)	-15.36 (.88)
SKILLED	.44 (2.43)**	.59 (2.71)**	17.89 (2.18)**	21.31 (2.27)**
OTHRTR	-.01 (.07)	-.15 (.77)	-1.59 (.25)	-14.86 (1.75)*
CONSTANT	-14.31	-10.65	-566.28	-483.93
n	1201	510	1201	510
R^2	.26	.32	.29	.31
$\overline{R}^2$	.25	.30	.27	.29
F	20.24	12.21	22.56	11.71

TABLE 4.18

HOUPLY EARNING, MOST RECENT, JOB
REDUCED FROM SPECIFICATION, WOMEN
YOUNGER ADULT WORKERS

Samples	ALL	NO4COL	NOCOL
Explanatory Variables	B (t)	B(t)	B(t)
RACE	-.51 (1.80)*	-.39 (1.25)	-.38 (1.06)
SES	.43 (2.50)**	.48 (2.31)**	.26 (.98)
RURAL	-.88 (3.86)**	-.73 (2.98)**	-1.23 (4.14)**
EXPER	.05 (2.55)**	.09 (3.86)**	.08 (2.59)**
CLPPER	.86 (2.71)**	.49 (1.13)	.80 (1.47)
BSNS	-.09 (.32)	.34 (1.16)	.60 (1.65)*
MARKET+	-1.12 (1.58)	.44 (.62)	-.86 (1.01)
TRADE+	1.60 (2.81)**	1.93 (3.29)**	2.80 (3.33)**
OTHFR	-.01 (.03)	.25 (.47)	.33 (.57)
CONSTANT	4.27	3.27	3.86
n	500	344	207
R^2	.12	.12	.19
$\bar{R}^2$	.10	.10	.16
F	7.49	5.19	5.29

TABLE 4.19
WEEKLY EARNINGS, MOST RECENT JOB
REDUCED-FORM SPECIFICATION, WOMEN
YOUNGER ADULT WORKERS

Samples	ALL	NO4COL	NOCOL
Explanatory Variables	B (t)	B (t)	B (t)
RACE	-26.47 (1.71)*	-18.04 (1.02)	-20.66 (1.00)
SES	20.21 (2.13)**	23.86 (2.00)**	13.50 (.90)
RURAL	-36.40 (2.92)**	-24.83 (1.76)*	-43.30 (2.54)**
EXPER	2.00 (2.05)**	3.62 (2.58)**	3.31 (1.95)*
CLPREP	30.14 (1.74)*	14.18 (.57)	18.41 (.59)
BSNS	-4.20 (.28)	15.76 (.93)	20.27 (.97)
MARKET+	-44.23 (1.15)	-11.05 (.27)	-31.17 (.64)
TRADE+	87.18 (2.81)**	127.00 (3.78)**	117.37 (2.43)**
OTHER	-12.48 (.44)	5.43 (.18)	2.89 (.08)
CONSTANT	167.71	120.13	148.46
n	500	344	207
R^2	.08	.09	.11
$\overline{R}^2$	.06	.06	.06
F	4.83	3.61	2.57

TABLE 4.20

EARNINGS, MOST RECENT JOB
REDUCED-FORM SPECIFICATION, WOMEN
NLS-LME

	Hourly				Weekly			
Samples:	ALL		NOCOL		ALL		NOCOL	
Explanatory Variables	B	(t)	B	(t)	B	(t)	B	(t)
VOCATIONAL	-.43	(1.63)	-.71	(2.50)**	-18.33	(1.65)*	-29.22	(12.48)**
BSNS	-.07	(.57)	-.03	(.22)	-5.04	(.96)	-2.02	(.34)
CLPREP	.11	(.99)	-.02	(.10)	7.08	(1.49)	1.20	(.17)
UNEMP	.01	(.36)	.01	(.34)	-.31	(.35)	-	
AGE	.50	(1.66)*	.18	(.47)	15.84	(1.25)	4.85	(.30)
AGESQ/100	-.73	(1.36)	.23	(.34)	-21.54	(.95)	-5.24	(.18)
RACE	.06	(.55)	-.12	(.82)	4.52	(.95)	-.76	(.12)
SES/100	.56	(2.27)**	.84	(2.46)**	15.00	(1.44)	27.16	(1.93)*
RURAL	-.40	(2.91)**	-.44	(2.58)**	-16.14	(2.80)**	-16.18	(2.30)**
CITYCEN	-.04	(.46)	.02	(.17)	-3.68	(.89)	-2.90	(.51)
SOUTH	-.55	(5.52)**	-.45	(3.45)**	-18.97	(4.56)**	-14.21	(2.71)**
MARRIED	.04	(.35)	.09	(.62)	-4.93	(1.12)	-3.86	(.63)
WIDOWED	-.17	(.23)	.11	(.14)	-2.03	(.06)	12.31	(.35)
DIV/SEP	.29	(2.08)**	.05	(.30)	14.12	(2.37)**	2.63	(.34)
MDHOUSE	-.54	(2.60)**	-.53	(2.03)**	-30.56	(3.49)**	-19.93	(1.83)*
HOUSE	-.13	(3.93)**	-.16	(3.75)**	-6.80	(4.84)**	-6.87	(3.92)**
HSC16	.60	(4.77)**	-		25.35	(4.79)**		
HSC16+	.41	(2.34)**	-		18.52	(2.53)**		
CONSTANT	-4.01		.63		-94.90		66.53	
n	1220		605		1220		618	
R^2	.19		.13		.19		.10	
$\bar{R}^2$	.17		.11		.18		.08	
F	15.23		5.59		15.43		4.47	

TABLE 4.21

HOURLY AND WEEKLY EARNINGS, MOST RECENT JOB
STRUCTURAL SPECIFICATION, WOMEN
YOUNGER ADULT WORKERS

Explanatory Variables	Hourly		Weekly	
	B (t)	B (t)	B (t)	B (t)
BSNS	-.04 (.15)	.98 (.30)	-1.50 (.10)	4.94 (.32)
MARKET+	-1.21 (1.79)*	-.71 (1.06)	-46.18 (1.22)	-17.92 (.48)
TRADE	1.46 (2.65)**	1.56 (2.87)**	73.67 (2.40)**	83.07 (2.72)**
OTHER	-.07 (.13)	.13 (.25)	-13.37 (.48)	-2.99 (.11)
CLPREP	.25 (.77)	.10 (.30)	4.55 (.26)	-2.19 (.13)
SES	.33 (1.97)**	.34 (2.07)**	-15.23 (1.62)	15.77 (1.70)*
RURAL	-.87 (3.97)**	-.84 (3.97)**	-36.96 (3.04)**	-35.04 (2.93)**
EXPER	.05 (2.69)**	-.01 (.41)	2.10 (2.20)**	-.50 (.44)
RACE	-.39 (1.41)	-.32 (1.21)	-19.41 (1.28)	-14.88 (.99)
COLL4YR	1.06 (3.64)**	1.08 (3.76)**	50.59 (3.12)**	51.90 (3.21)**
ADVDEG	.59 (1.19)	.45 (.93)	10.28 (.37)	3.31 (.12)
EMPSP	1.27 (5.40)**	1.01 (4.33)**	44.57 (3.41)**	32.34 (2.46)**
APP	.37 (.98)	.45 (1.23)	27.26 (1.31)	30.21 (1.47)
PVT	.22 (.77)	.25 (.91)	36.06 (2.26)**	36.72 (2.34)**
PCCT	.48 (1.69)*	.48 (1.73)*	28.70 (1.83)*	27.36 (1.78)*
GOVT	-1.14 (1.85)*	-.97 (1.61)	-57.52 (1.67)*	-54.82 (1.61)
MOS	-.44 (.62)	.09 (.13)	-22.66 (.58)	4.29 (.11)
UNION	-	.05 (.27)	-	6.65 (.56)
NJOBS	-	-.01 (.14)	-	-.83 (.30)
LONGEST	-	.20 (4.60)**	-	10.25 (4.13)**
TENURE	-	.00 (.80)	-	-.03 (.14)
MDTC	-	.10 (.34)	-	-9.61 (.55)
JOBHUNT	-	-.30 (1.49)	-	-21.15 (1.84)*
STUDY1	-	-.58 (1.95)*	-	-19.43 (1.16)
STUDY2	-	-.43 (1.36)	-	-26.99 (1.54)
STUDY3	-	-.13 (.39)	-	12.92 (.68)
STUDY4	-	-.15 (.52)	-	-9.70 (.59)
CONSTANT	4.11	3.95	159.01	155.13
n	500	500	500	500
R^2	.22	.29	.15	.21
$\overline{R}^2$	.19	.25	.12	.16
F	7.86	7.04	4.92	4.55

TABLE 4.22

EARNINGS, MOST RECENT JOB
STRUCTURAL SPECIFICATION, WOMEN
NLS-LME

	Hourly		Weekly	
Sample:	ALL	NOCOL	ALL	NOCOL
Explanatory Variables	B (t)	B (t)	B (t)	B (t)
VOCATIONAL	-.34 (1.35)	-.62 (2.29)**	-14.52 (1.37)	-25.25 (2.28)**
BSNS	.01 (.08)	.02 (.17)	-1.25 (.25)	1.01 (.18)
CLPREP	.08 (.70)	.01 (.08)	5.98 (1.31)	2.97 (.44)
UNEMP	.01 (.29)	.01 (.29)	-.27 (.31)	.20 (.18)
AGE	.35 (1.23)	.08 (.22)	9.14 (.76)	-1.71 (.11)
AGESQ/100	-.51 (.98)	-.06 (.09)	-10.75 (.50)	6.19 (.23)
RACE	.24 (.22)	-.22 (1.52)	2.51 (.55)	-5.40 (.90)
SES/100	.55 (2.31)**	.86 (2.66)**	16.43 (1.65)*	31.00 (2.31)**
RURAL	-.40 (3.04)**	-.46 (2.82)**	-17.94 (3.23)**	-19.21 (2.85)**
CITYCEN	-.02 (.22)	-.01 (.10)	-2.72 (.69)	-3.90 (.72)
SOUTH	-.39 (4.02)**	-.32 (2.51)**	-11.80 (2.92)**	-8.34 (1.61)
MARRIED	.04 (.43)	.12 (.84)	-4.68 (1.11)	-2.44 (.42)
WIDOWED	.08 (.11)	.28 (.35)	7.70 (.25)	16.09 (.49)
DIV/SEP	.22 (1.58)	.04 (.22)	10.22 (1.79)*	2.98 (.42)
MDHOUSE	-.41 (2.02)**	-.36 (1.44)	-24.90 (2.95)**	-14.18 (1.38)
HOUSE	-.13 (4.01)**	-.14 (3.44)**	-6.70 (4.96)**	-6.37 (3.84)**
UNION	.73 (7.14)**	.85 (6.05)**	31.80 (7.46)**	35.37 (6.11)**
CONSTR	.08 (.14)	.25 (.41)	12.07 (.52)	19.39 (.76)
MFG	.24 (2.15)**	.37 (2.79)**	20.17 (4.28)**	27.28 (4.96)**
HSC16	.57 (4.60)**	-	25.56 (4.93)**	
HSC16+	.26 (1.57)	-	12.39 (1.76)*	
PROFTECH	.50 (4.63)**	.46 (2.65)**	20.27 (4.50)**	16.85 (2.33)**
MANAGE	1.01 (5.26)**	1.06 (3.74)**	43.50 (5.43)**	46.22 (6.76)**
CLRCSLS	-.10 (.82)	-.06 (.43)	-.63 (.12)	1.33 (.22)
SKILLED	-.06 (.32)	-.13 (.62)	-5.24 (.69)	-6.58 (.75)
OTHRTR	-.04 (.34)	.13 (.88)	-.30 (.07)	2.80 (.48)
CONSTANT	-2.18	1.57	-14.28	132.17
n	1225	617	1225	618
R^2	.25	.22	.26	.22
$\bar{R}^2$	.24	.19	.25	.19
F	15.47	7.13	16.41	7.00

TABLE 4.23

MEAN HOURLY EARNINGS, FIRST JOB
BY RACE, SEX, AND CURRICULUM
YOUNGER ADULT WORKERS

Race-Sex Category	Sample	Curriculum: Vocational	College Prep	General	All
White Male	ALL	5.66(188)	6.88(148)	6.50(86)	6.26(422)
	NOCOL	5.51(101)	6.34(20)	5.34(39)	5.58(160)
White Female	ALL	4.74(213)	6.00(93)	5.01(55)	5.11(361)
	NOCOL	4.52(112)	4.61(13)	4.76(25)	4.57(150)
Minority Male	ALL	5.55(49)	6.62(14)	5.76(12)	5.78(75)
	NOCOL	5.62(23)	8.65(3)	5.92(6)	5.96(32)
Minority Female	ALL	5.26(32)	6.01(13)	4.69(17)	5.27862)
	NOCOL	5.28(20)	5.74(5)	4.41(10)	5.10(35)
All Categories	ALL	5.22(482)	6.52(268)	5.79(170)	5.70(920)
	NOCOL	5.07(256)	5.89(41)	5.09(80)	5.16(377)

NOTE: Numbers in parentheses indicate frequency of cases in each cell.

TABLE 4.24

MEAN WEEKLY EARNINGS, FIRST JOB
BY RACE, SEX, AND CURRICULUM
YOUNGER ADULT WORKERS

Race-Sex Category	Sample	Curriculum: Vocational	College Prep	General	All
White Male	ALL	248	295	294	274
	NCCOL	245	244	245	245
White Female	ALL	189	241	196	203
	NCCOL	179	184	184	180
Minority Male	ALL	226	290	243	240
	NCCOL	227	346	266	245
Minority Female	ALL	199	228	187	202
	NCCOL	196	214	172	192
All Categories	ALL	216	273	248	239
	NCCOL	211	229	218	214

TABLE 4.25

EARNINGS, FIRST REGULAR FULL-TIME JOB
REDUCED FORM SPECIFICATION, MEN
YOUNGER ADULT WORKERS

	Hourly		Weekly	
Sample:	ALL	NOCOL	ALL	NOCOL
Explanatory Variables	B (t)	B (t)	B (t)	B (t)
RACE	-.32 (.89)	.41 (.81)	-28.36 (1.66)*	2.25 (.09)
SES	.04(.23)	.44 (1.29)	3.28 (.37)	31.23 (1.99)**
RURAL	.52 (2.08)**	-.40 (1.05)	-14.15 (1.17)	-3.33 (.19)
CEPTIF	.42 (1.32)	.39 (.90)	18.81 (1.50)	15.59 (.78)
CLPREP	.50 (1.59)	.97 (1.56)	11.70 (.78)	4.10 (.14)
BSNS	-.86 (1.76)*	-.58 (.80)	-48.98 (2.10)**	-47.73 (1.42)
TRADE	-.69 (1.99)**	.12 (.25)	-33.29 (1.98)**	.54 (.03)
MARKET+	-1.42 (1.42)	-1.80 (1.14)	-84.23 (1.76)*	-105.96 (1.45)
OTHER	-.89 (1.51)	.10 (.13)	-31.10 (1.10)	22.45 (.64)
YEST1	.04 (.14)	.29 (.62)	1.26 (.08)	19.24 (.90)
CONSTANT	6.31	4.21	274.21	152.96
n	590	232	590	232
R^2	.05	.05	.04	.05
$\bar{R}^2$	.03	.01	.02	.01
F	2.81	1.26	2.11	1.18

TABLE 4.26

EARNINGS, FIRST REGULAR FULL-TIME JOB
REDUCED FORM SPECIFICATION, WOMEN
YOUNGER ADULT WORKERS

	Hourly		Weekly	
Sample:	ALL	NOCOL	ALL	NOCOL
Explanatory Variables	B(t)	B(t)	B (t)	B(t)
RACE	-.07(.28)	.38 (1.21)	-10.47 (.94)	5.92 (.45)
SES	.31 (2.11)**	.26 (1.16)	15.03 (2.09)**	9.49 (1.02)
RURAL	-.36 (1.78)*	-.34 (1.37)	-14.43 (1.70)*	-14.91 (1.41)
CERTIF	.02 (.09)	.23 (.87)	-1.56 (.16)	6.06 (.53)
CLPREP	.96 (3.56)**	.70 (1.56)	40.93 (3.56)**	27.90 (1.49)
BSNS	-.26 (1.02)	-.05 (.15)	-11.46 (1.04)	.12 (.00)
TRADE	-.14 (.26)	.15 (.19)	2.41 (.11)	22.14 (.67)
MARKET	-.56 (.91)	-.44 (.57)	-12.45 (.48)	-25.07 (.77)
OTHER	.31 (.66)	-.05 (.10)	17.70 (.88)	9.64 (.45)
YEST1	-.25 (1.24)	-.34 (1.26)	-9.49 (1.13)	-13.01 (.53)
CONSTANT	4.17	3.86	163.44	152.88
n	565	240	565	240
R^2	.09	.05	.09	.04
$\bar{R}^2$	.07	.01	.07	.00
F	5.40	1.22	5.52	1.03

TABLE 4.27

EARNINGS, FIRST REGULAR FULL-TIME JOB
STRUCTURAL SPECIFICATION, MEN
YOUNGER ADULT WORKERS

	Hourly		Weekly	
	B(t)	B(t)	B(t)	B(t)
BSNS	-.63 (1.37)	-.51 (1.11)	-39.69 (1.78)*	-34.19 (1.54)
MARKET+	-1.32 (1.35)	-1.01 (1.05)	-80.21 (1.70)*	-66.88 (1.43)
TRADE	-.32 (1.04)	-.49 (1.63)	-16.81 (1.13)	-24.17 (1.65)*
OTHER	-.41 (.73)	-.58 (1.05)	-8.71 (.32)	-17.47 (.65)
CLPREP	.13 (.41)	.50 (1.64)*	-5.87 (.37)	11.71 (.79)
SES	-.03 (.18)	.06 (.33)	-.43 (.04)	4.06 (.46)
RURAL	-.50 (1.99)**	-.46 (1.88)*	-13.57 (1.13)	-11.64 (.98)
RACE	-.24 (.68)	-.46 (.131)	-24.44 (1.45)	-33.84 (2.01)**
COLL4YR	1.14 (3.50)**	-	45.79 (2.93)**	-
ADVDEG	.13 (.26)	-	26.59 (1.11)	-
EMPSP	.16 (.57)	-	9.45 (.69)	-
APP	-.21 (.66)	-	-9.29 (.61)	-
PVT	.83 (2.63)**	-	36.93 (2.42)**	-
PCCT	.14 (.38)	-	11.70 (.68)	-
GOVT	.69 (1.26)	-	19.07 (.72)	-
MDS	-.06 (.18)	-	-11.44 (.70)	-
UNION	-	1.32 (5.49)**	-	53.79 (4.60)**
YEST1	-.03 (.08)	.06 (.21)	-2.58 (.17)	2.00 (.14)
CONSTANT	6.17	7.19	269.98	309.90
n	590	590	590	590
R^2	.08	.09	.07	.07
$\overline{R}^2$	.06	.08	.04	.05
F	3.08	5.78	2.50	4.15

TABLE 4.28

EARNINGS, FIRST FULL-TIME JOB
STRUCTURAL SPECIFICATION, WOMEN
YOUNGER ADULT WORKERS

	Hourly		Weekly	
	B(t)	B(t)	B(t)	B(t)
BSNS	-.21 (.89)	-.22 (.93)	-9.71 (.97)	-11.16 (1.10)
MARKST+	-.70 (1.19)	-.54 (.90)	-18.59 (.74)	-13.20 (.52)
TRADE	-.03 (.06)	-.09 (.19)	4.92 (.23)	2.14 (.10)
OTHER	.31 (.69)	.33 (.73)	18.32 (.96)	-16.93 (.88)
CLPREP	.61 (2.22)**	.99 (3.66)**	26.57 (2.26)**	41.83 (3.64)**
SES	.24 (1.63)	.30 (2.04)**	9.73 (1.56)	12.70 (2.04)**
RURAL	-.32 (1.63)	-.37 (1.84)*	-13.02 (1.57)	-14.67 (1.74)*
RACE	-.01 (.00)	-.11 (.40)	-7.06 (.64)	-11.48 (1.03)
COLL4YR	.53 (2.07)**		30.43 (2.77)**	
ADVDEG	1.06 (2.43)**		25.20 (1.35)	
EMPSP	.83 (3.83)**		32.19 (3.47)**	
APP	.52 (1.62)		-22.48 (1.64)*	
PVT	.46 (1.79)*		17.99 (1.64)*	
PCCT	-.12 (.46)		1.39 (.13)	
GOVT	-.88 (1.59)		-42.50 (1.82)*	
MOC	-.51 (.87)		-12.99 (.52)	
UNION		.34 (1.72)*		10.42 (1.26)
YEST1	-.26 (1.33)	-.23 (1.18)	-10.24 (1.23)	-9.12 (1.08)
CONSTANT	4.16	4.43	162.79	171.48
n	565	565	565	565
R^2	.15	.09	.15	.09
$\bar{R}^2$	.12	.08	.12	.08
F	5.70	5.73	5.46	5.69

TABLE 4.29

ANNUAL AVERAGE GROWTH RATE OF HOURLY EARNINGS
MEN
YOUNGER ADULT WORKERS

Explanatory Variables	Within First Job B (t)	Within Most Recent Job B (t)	Career B (t)
BSNS	-1.66 (.18)	-7.75 (.55)	-4.08 (1.08)
MARKET+	3.39 (.18)	.39 (.00)	14.11 (1.45)
TRADE	5.75 (.94)	-7.46 (.78)	1.27 (.48)
OTHER	3.64 (.34)	-11.17 (.65)	-6.47 (1.44)
CLPREP	1.39 (.22)	-7.75 (.79)	.22 (.08)
SES	-.17 (.04)	4.07 (.52)	.48 (.31)
RURAL	10.47 (2.13)**	-3.54 (.46)	-.63 (.30)
EXPER	-	-.23 (.32)	-.08 (.28)
AGE	.26 (.27)	-	-
RACE	-5.90 (.86)	20.81 (1.88)*	2.37 (.80)
TENURE	1.82 (2.73)**	.02 (.00)	.44 (1.08)
COLL4YR	-7.39 (1.10)	-	-5.43 (1.97)**
ADVDEG	10.76 (1.11)	-	3.49 (.78)
APP	1.07 (.18)	-	4.38 (1.71)*
EMPSP	-8.19 (.18)	-	-2.01 (.81)
PVT	1.19 (.19)	-	1.11 (.43)
PCCT	3.31 (.48)	-	-6.41 (2.19)
GOVT	-3.83 (.35)*	-	-4.73 (1.04)
MOS	-5.18 (.79)	-	.49 (.18)
CONSTANT	-15.00	-3.71	3.62
n	562	539	402
R^2	.11	.01	.05
$\bar{R}^2$	.08	-.01	.01
F	3.58	.44	1.12

TABLE 4.30

ANNUAL AVERAGE GROWTH RATE OF HOURLY EARNINGS
WOMEN
YOUNGER ADULT WORKERS

Explanatory Variables	With First Job B (t)	Within Most Recent Job B (t)	Career B (t)
BSNS	-.70 (.09)	-6.28 (1.40)	1.55 (.60)
MARKET+	-4.23 (.22)	-.49 (.04)	-5.30 (.94)
TRADE	-6.59 (.41)	-5.77 (.62)	14.58 (2.11)**
OTHER	-7.85 (.57)	10.09 (1.20)	.58 (.11)
CLPREP	-4.23 (.47)	-7.01 (1.38)	-1.58 (.52)
SES	-9.19 (1.95)*	-.62 (.22)	1.64 (1.01)
RURAL	5.58 (.90)	-2.79 (.75)	-.88 (.39)
EXPER	-	-.26 (1.00)	-.14 (.88)
AGEIST	.23 (.30)	-	-
RACE	-1.49 (.18)	-10.35 (2.30)**	-8.11 (3.00)**
MARRIED	5.34 (.97)	-	-
TENURE	2.53 (2.67)**	-.60 (.93)	.91 (.00)
COLL4YR	-15.19 (1.82)*	-	2.27
ADVDEG	20.38 (1.52)	-	-2.67 (.58)
APP	.57 (.05)	-	2.23 (.62)
EMPSP	4.20 (.60)	-	2.18 (.93)
PVT	2.73 (.33)	-	-6.33 (2.02)**
PCCT	5.47 (.65)	-	-2.53 (.83)
GOVT	5.64 (.30)	-	.80 (.14)
MOS	13.97 (.70)	-	12.03 (1.83)*
CONSTANT	11.26	15.64	-.37
n	550	517	341
R^2	.14	.03	.09
$\bar{R}^2$	.11	.01	.03
F	4.47	1.40	1.61

TABLE 5.1

UNEMPLOYMENT RATES
BY CURRICULUM AND DATA SET

Curriculum	Data Set		
	YAW	CLASS OF '72	NSL-LME
Vocational	8.6%	5.8%	3.3%
Business	---	---	5.1%
College Prep	5.7%	4.1%	5.1%
General	10.1%	5.6%	5.8%

TABLE 5.2

AVERAGE WEEKS UNEMPLOYED PAST TWO YEARS (1979-80)
BY RACE, SEX, CURRICULUM, AND PROGRAM AREA
YOUNGER ADULT WORKERS

Curriculum	All	White Male	White Female	Minority Male	Minority Female
College Prep	4.6(351)	3.7(177)	4.8(132)	1.8(21)	13.2(21)
General	7.6(212)	6.4(103)	7.8(73)	6.4(16)	13.8(20)
Vocational	6.5(639)	3.7(246)	7.1(291)	10.2(57)	12.5(45)
Program Area					
Agriculture	3.2(29)				
Marketing	4.4(22)				
Health	8.2(12)				
Home Economics	18.6(17)				
Trade or Industry	5.2(219)				
Business/ Office	7.3(315)				
Other	3.4(12)				

Note: Numbers in parentheses are cases in the cell.

TABLE 5.3

UNEMPLOYMENT STATUS AT TIME OF INTERVIEW
YOUNGER ADULT WORKERS

Variable	Men B (t)	Women B (t)
MARRIED		.03 (1.23)
RACE	.03 (.82)	.07 (1.90)*
RURAL	.01 (.52)	.02 (.63)
EXPER	.00 (.46)	.00 (.65)
SES	.02 (1.06)	-.02 (.86)
CLPREP	-.06 (2.16)**	.02 (.40)
ADVDEG	-.04 (.87)	-.01 (.24)
COLL4YR	.01 (.51)	-.07 (1.86)*
EMPSP	-.01 (.54)	-.03 (.91)
APP	-.02 (.53)	.02 (.55)
PVT	-.02 (.57)	-.06 (1.81)
PCCT	-.03 (1.07)	-.07 (1.89)*
GVT	.18 (3.43)**	-.03 (.43)
MOS	-.01 (.48)	.07 (.79)
BSNS	-.11 (2.52)**	.00 (.03)
MARKET+	-.10 (1.10)	.07 (.87)
TRADE	-.01 (.49)	-.03 (.47)
OTHER	-.02 (.47)	-.07 (1.25)
CONSTANT	.58	.15
n	635	605
R^2	.06	.04
$\overline{R}^2$	.03	.01
F	2.15	1.37

TABLE 5.4

WEEKS UNEMPLOYED, PAST TWO YEARS (1979-80)
YOUNGER ADULT WORKERS

Explanatory Variables	Men B (t)	Women B (t)
BSNS	-.25 (.14)	-.62 (.91)
MARKET+	-4.18 (1.17)	-.88 (.16)
TRADE	-1.20 (1.03)	.80 (.18)
OTHER	-.10 (.04)	1.40 (.35)
CLPREP	-.78 (.63)	-1.11 (.44)
SES	.54 (.78)	.28 (.20)
RURAL	-.22 (.23)	1.48 (.83)
EXPER	.02 (.19)	-.13 (1.00)
RACE	3.56 (2.74)**	6.27 (2.72)**
COLL4YR	-2.27 (1.85)*	-2.29 (.97)
ADVDEG	-2.62 (1.40)	-3.59 (.92)
APP	-.62 (.52)	-1.10 (.37)
EMPSP	-2.30 (2.16)**	-1.20 (.60)
PVT	.23 (.19)	-2.31 (.98)
PCCT	-2.08 (1.56)	-4.00 (1.67)*
GOVT	13.24 (6.25)**	-2.82 (.54)
MOS	-2.77 (2.16)**	3.77 (.70)
MARRIED	-	.51 (.32)
CONSTANT	4.61	8.34
n	615	577
R^2	.11	.03
$\bar{R}^2$	.09	.00
F	4.45	1.11

TABLE 5.5

WEEKS UNEMPLOYED, PAST TWO YEARS (1977-78)
CLASS OF '72

	Men		Women	
Sample:	ALL	NOCOL	ALL	NOCOL
Explanatory Variables:	B (t)	B (t)	B (t)	B (t)
BSNS	2.13 (2.52)**	1.24 (.85)	-.33 (.70)	-2.22 (2.75)**
MARKET	-.29 (.33)	.86 (.57)	-.77 (.61)	-3.99 (1.90)*
TRADE	.12 (.24)	-.91 (1.11)	1.20 (.73)	3.56 (1.15)
OTHER	-.51 (.62)	-.69 (.54)	2.60 (2.79)**	1.97 (1.29)
CLPREP	.10 (.33)	-.85 (1.03)	-.16 (.41)	-1.10 (1.05)
RACE	.36 (2.74)**	.57 (1.86)*	.02 (.10)	-.15 (.35)
RURAL	.37 (1.36)	-.15 (.25)	.62 (1.88)*	.20 (.29)
SES	.01 (.63)	.01 (.41)	.03 (1.62)	.03 (.80)
TENURE	-.93 (16.35)**		.89 (12.02)**	
EXPER	.45 (4.97)**		.25 (2.45)**	
APP	-.41 (.39)		.39 (.13)	
EMPSP	-1.95 (4.37)**		-1.92 (3.67)**	
MOS	-.69 (.83)		-3.15 (1.53)	
COLL4YR	-.92 (2.50)**		.03 (.08)	
ADVDEG	-.97 (1.37)		.53 (.61)	
VT2YR	-.65 (1.86)*		.09 (.29)	
GOVT	3.72 (3.35)**		8.35 (7.07)**	
CONSTANT	4.57	4.94	5.45	6.07
n	7164	2063	6216	1762
R^2	.05	.00	.04	.01
$\bar{R}^2$	.04	.00	.03	.00
F	20.26	.96	13.98	2.26

TABLE 5.6

WEEKS UNEMPLOYED, PAST TWO YEARS 1975-76
NLS-LME

	Men		Women	
Sample:	ALL	NOCOL	ALL	NOCOL
Explanatory Variables:	B (t)	B (t)	B (t)	B (t)
VOCATIONAL	.27 (.48)	.93 (1.51)	.72 (.54)	1.90 (1.16)
BSNS	-.07 (.07)	.04 (.04)	-.18 (.28)	.29 (.35)
CLPREP	-.46 (1.08)	-.50 (.73)	-.05 (.09)	-.16 (.16)
UNEMP	-.03 (.34)	-.12 (1.10)	.24 (2.28)**	.11 (.65)
AGE	-2.56 (2.32)**	-1.35 (.90)	-2.62 (1.75)*	-3.22 (1.44)
AGESQ/100	4.15 (2.18)**	2.07 (.80)	4.59 (1.71)*	5.64 (1.41)
RACE	.96 (1.90)*	1.40 (2.09)**	.91 (1.61)	1.21 (1.39)
SES/100	.95 (.92)	.91 (.58)	-1.92 (1.55)	-3.08 (1.57)
RURAL	-.04 (.24)	.20 (.33)	-1.47 (2.12)**	-1.57 (1.60)
CITYCEN	.66 (1.68)*	-.22 (.38)	.73 (1.49)	.91 (1.14)
SOUTH	-.67 (1.62)	-1.17 (2.07)**	-.74 (1.47)	-.18 (.24)
MARRIED	-	-	.10 (.19)	-.00 (.00)
WIDOWED	-	-	-2.75 (.72)	-1.43 (.30)
DIV/SEP	-	-	.10 (.14)	.70 (.66)
MDHOUSE	-	-	.35 (.33)	.45 (.30)
HOUSE	-	-	.43 (2.55)**	.53 (2.18)**
UNION	-.08 (.20)	-	-1.66 (3.12)**	-
CONSTR	1.82 (2.82)**	-	2.45 (.86)	-
MFG	.31 (.80)	-	1.34 (2.29)**	-
HSC16	.61 (1.26)	-	-.64 (1.00)	-
HSC16+	-.70 (1.16)	-	.83 (.95)	-
PROFTECH	-.67 (1.61)	-	.27 (.48)	-
MANAGE	-.49 (.76)	-	.46 (.46)	-
CLRCSLS	-.45 (.54)	-	-.12 (.19)	-
SKILLED	-.45 (.86)	-	-.44 (.48)	-
OTHRTR	.21 (.52)	-	.36 (.65)	-
CONSTANT	39.26	22.72	38.41	47.85
n	1201	510	1225	618
R^2	.04	.03	.05	.05
$\bar{R}^2$	.02	.02	.03	.02
F	2.28	1.53	2.35	1.93

TABLE 5.7

TRAINING RELATEDNESS OF EMPLOYMENT
VOCATIONAL STUDENTS
YOUNGER ADULT WORKERS

Extent of Use of Skills Acquired in High School

(Percent)

	Great Deal	Fair	Not Very Much	None	Total %	(N)
First Job						
Men	28	25	24	24	99	(191)
Women	40	30	11	19	100	(201)
Trade Students	31	27	21	22	101	(151)
Business/Office Students	42	28	13	17	100	(79)
Most Recent Job						
Men	29	23	19	29	100	(170)
Women	47	22	12	20	101	(177)
Trade Students	35	25	16	24	100	(135)
Business/Office Students	47	18	15	20	100	(163)

TABLE 5.8

USE OF SKILLS ACQUIRED IN HIGH SCHOOL
STUDENTS WITH VOCATIONAL CURRICULA - MEN, FIRST JOB
YOUNGER ADULT WORKERS

Explanatory Variables	B (t)	B (t)	B(t)	B (t)	B (t)	B (t)
RACE	-.04 (.19)	.02 (.09)	-.04 (.23)	-.03 (.17)	-.11 (6.57)**	-.01 (.05)
SES	.03 (.25)	.09 (.71)	-.01 (.04)	.05 (.41)	-.01 (.59)	.05 (.38)
RURAL	.01 (.63)	.14 (.95)	-.01 (.09)	.11 (.73)	.11 (.05)	.13 (.82)
EXPER	.00 (.12)	-.01 (.46)	.01 (.45)	.00 (.13)	.72 (.79)	-.01 (.38)
BSNS	.03 (.10)	.15 (.51)	.20 (.72)	.01 (.64)	.15 (.45)	-.01 (.04)
MARKET	.31 (.64)	.40 (.85)	.24 (.51)	.33 (.68)	.17 (.54)	.19 (.39)
TRADE	.54 (2.23)**	.56 (2.37)**	.56 (2.36)**	.48 (1.95)*	.47 (.38)	.50 (2.01)**
REPEAT		.58 (3.81)**				
TCHAST			.53 (2.80)**			
JOBHUNT			.38 (2.56)**			
MORE				-.33 (.63)		
SAME				-.33 (.63)		
LESS				-.71 (1.35)		
SATISFIED					-.44 (2.06)**	
COLL4YR						-.04 (.10)
ADVDEG						.47 (.69)
FMPSPC						.20 (1.15)
PVT						-.23 (1.09)
PCCT						.43 (2.02)**
APP						.01 (.06)
GOVT						-.46 (1.40)
MDS						-.12 (.55)
CONSTANT	1.86	1.29	1.62	2.26	2.90	1.82
n	249	249	249	249	249	249
R^2	.20	.31	.33	.25	.43	.28
$\bar{R}^2$	.04	.10	.11	.06	.19	.08
F	1.47	3.18	3.36	1.64	6.91	1.31

TABLE 5.9

USE OF SKILLS ACQUIRED IN HIGH SCHOOL
STUDENTS WITH VOCATIONAL CURRICULA - WOMEN, FIRST JOB
YOUNGER ADULT WORKERS

Explanatory Variables	B (t)	B (t)	B (t)	B (t)	B (t)	B (t)
RACE	-.16 (.78)	-.13 (.64)	-.26 (1.27)	-.18 (.89)	-.23**(6.80)	-.13 (.65)
SES	-.03 (.24)	-.01 (.09)	-.04 (.28)	.00 (.03)	-.01 (1.22)	.02 (.15)
RURAL	-.04 (.25)	-.05 (.35)	-.04 (.28)	-.07 (.44)	.00 (.11)	-.04 (.24)
EXPER	-.01 (.53)	.00 (.39)	.00 (.29)	.00 (.34)	.00 (.00)	.00 (.34)
MARRIED	.03 (.20)	.02 (.18)	.05 (.37)	.03 (.24)	-.06 (.26)	.02 (.16)
BSNS	.63 (2.46)**	.63 (2.49)**	.60 (2.39)**	.62 (2.45)**	.42 (.44)	.76 (2.92)**
MARKET+	-.02 (.04)	-.03 (.08)	-.15 (.38)	.03 (.07)	-.35 (1.77)*	.10 (.22)
TRADE+	-.10 (.26)	-.01 (.30)	-.11 (.32)	-.13 (.37)	-.25 (.93)	-.04 (.10)
REPEAT		.25 (1.87)*				
TCHAST			.30 (1.84)*			
JOBHUNT			.39 (2.71)**			
MORE				.44 (.84)		
SAME				.06 (.11)		
LESS				-.12 (.23)		
SATISFIED					-.44 (.75)	
COLL4YR						-.47 (1.81)*
ADVDEG						1.49 (1.23)
EMPSP						.11 (.65)
PVT						.27 (1.34)
PCCT						-.07 (.35)
APP						.17 (.56)
GVT						-.56 (1.16)
MOS						.50 (.96)
CONSTANT	2.52	2.30	2.26	2.26	3.54	2.23
n	298	298	298	298	298	298
R^2	.23	.25	.32	.30	.43	.30
$\bar{R}^2$	.05	.06	.10	.09	.18	.09
F	2.04	2.21	3.19	2.61	7.24	1.68

TABLE 5.10

USE OF SKILLS ACQUIRED IN HIGH SCHOOL
STUDENTS WITH VOCATIONAL CURRICULA - MEN, MOST RECENT JOB
YOUNGER ADULT WORKERS

Explanatory Variables	B (t)	B (t)	B (t)	B (t)	B (t)	B (t)
RACE	-.07 (.32)	-.01 (.03)	-.07 (.35)	-.06 (.28)	-.10 (.49)	-.06 (.27)
SES	.06 (.45)	-.01 (.04)	-.12 (.91)	-.04 (.28)	-.10 (.72)	-.09 (.65)
RURAL	.20 (1.25)	.25 (1.58)	.09 (.59)	.21 (1.34)	.22 (1.35)	.27 (1.68)*
EXPER	.03 (1.28)	.02 (1.05)	.04 (2.08)**	.03 (1.32)	.03 (1.56)	.01 (.58)
RSNS	.02 (.07)	.09 (.29)	.26 (.83)	.01 (.03)	.11 (.36)	-.04 (.12)
MARKET+	-.06 (.13)	.07 (.14)	-.07 (.14)	-.06 (.12)	-.04 (.08)	-.32 (.67)
TRADE	.24 (.93)	.25 (1.00)	.28 (1.11)	.19 (.71)	.21 (.84)	.17 (.66)
TENURE	-.06 (1.87)*	-.06 (2.03)**	-.07 (2.58)**	-.06 (1.96)**	-.06 (2.09)**	-.06 (1.87)*
MDTC	.27 (1.25)	.23 (1.09)	.19 (.86)	.24 (1.11)	.16 (.76)	.27 (1.22)
REPEAT		.53 (3.29)**				
TCHAST			.37 (1.87)*			
JOBHUNT			.53 (3.38)**			
MORE				-.10 (.18)		
SAME				-.14 (.25)		
LESS				-.48 (.87)		
SATISFIED					-.26 (3.46)**	
COLL4YR						.23 (.61)
ADVDEG						.40 (.56)
EMPSP						.21 (1.14)
PVT						.07 (.33)
PCCT						.69 (3.11)**
APP						.33 (1.69)*
GOVT						-.36 (1.07)
MOS						.08 (.35)
CONSTANT	2.21	1.71	2.01	2.40	2.87	2.21
n	245	245	245	245	245	245
R^2	.05	.09	.12	.07	.09	.12
$\bar{R}^2$	.01	.05	.08	.02	.06	.05
F	1.31	2.32	2.86	1.35	2.44	1.80

TABLE 5.11

USE OF SKILLS ACQUIRED IN HIGH SCHOOL
STUDENTS WITH VOCATIONAL CURRICULA - WOMEN, MOST RECENT JOB
YOUNGER ADULT WORKERS

Explanatory Variables	B (t)	B (t)	B (t)	B (t)	B (t)	B (t)
RACE	-.16 (.72)	-.11 (.52)	-.21 (.95)	-.17 (.77)	-.22 (1.08)	-.19 (.86)
SES	-.06 (.43)	-.04 (.29)	-.07 (.48)	-.04 (.30)	-.05 (.42)	-.04 (.31)
RURAL	-.01 (.57)	-.11 (.69)	-.09 (.57)	-.12 (.75)	-.05 (.33)	-.09 (.52)
EXPER	-.02 (1.90)*	-.02 (1.69)*	-.01 (1.45)	-.02 (1.90)*	-.02 (1.69)*	-.02 (1.87)*
MARRIED	.01 (.66)	.09 (.60)	.11 (.74)	.01 (.68)	.00 (.03)	.46 (.31)
BSNS	.61 (2.23)**	.63 (2.33)**	.60 (2.19)**	.59 (2.16)**	.39 (1.52)	.71 (2.51)**
MARKET+	-.02 (.04)	-.03 (.06)	-.09 (.20)	.08 (.19)	-.38 (.95)	.11 (.03)
TRADE	.36 (.94)	.33 (.88)	.36 (.94)	.31 (.80)	.16 (.44)	.44 (1.10)
TENURE	-.02 (.82)	-.02 (.92)	-.02 (.86)	-.02 (.72)	-.03 (1.34)	-.02 (.89)
MDTC	-.23 (1.11)	-.30 (1.45)	-.22 (1.06)	-.21 (1.03)	-.35 (1.80)*	-.23 (1.10)
REPEAT		.41 (2.86)**				
TCHAST			.14 (.77)			
JOBHUNT			.22 (1.43)			
MORE				.77 (1.23)		
SAME				.71 (1.13)		
LESS				.39 (.62)		
SATISFIED					-.47 (6.94)**	
COLL4YR						-.01 (.35)
ADVDEG						1.57 (1.22)
EMPSP						.33 (1.80)*
PVT						.04 (.20)
PCCT						-.05 (.25)
APP						-.20 (.62)
GOVT						.19 (.38)
MOS						.08 (.15)
CONSTANT	2.68	2.37	2.54	1.98	3.86	2.52
n	294	294	294	294	294	294
R^2	.05	.27	.24	.25	.18	.25
$\bar{R}^2$	.01	.07	.06	.06	.15	.06
F	1.34	2.00	1.42	1.43	5.79	1.06

TABLE 5.12

TRAINING-RELATED EMPLOYMENT, FIRST JOB
VOCATIONAL STUDENTS
CLASS OF '72

	Men		Women	
Sample:	ALL	NOCOL	ALL	NOCOL
Explanatory Variables:	Bx100(t)	Bx100(t)	Bx100(t)	Bx100(t)
BSNS	-9.93 (2.21)**	-14.26 (2.26)**	29.56 (8.13)**	33.20 (6.43)**
MARKET	-2.67 (.57)	-9.03 (1.41)	-2.01 (.35)	-4.02 (.49)
TRADE	7.01 (1.98)**	.77(.16)	18.63 (2.74)**	18.34 (1.72)*
RACE	-3.11 (1.93) *	-2.92 (1.21)	-8.33 (3.79)**	-7.08 (2.26)**
RURAL	2.80 (1.10)	-.47 (.13)	-6.00 (2.35)*	-5.47 (1.53)
SES	-.18 (.42)	-.14 (.34)	-.25 (.34)	-.26 (.78)
TENURE	.26 (.55)	.55 (.87)	1.27 (2.55)**	1.44 (2.19)**
EXPER	2.07 (2.06)**	3.86 (2.39)**	3.54 (4.07)**	3.70 (2.83)**
APP	.15 (1.91)*	2.05 (1.65)*	-34.88 (1.64)*	-80.13 (1.70)*
EMPSP	-2.10 (.46)	-7.13 (1.03)	13.97 (3.31)**	20.92 (3.40)**
MOS	-6.81 (.82)	-19.45 (1.20)	-16.30 (.68)	
COLL4YR	-9.33 (1.47)	-	-5.77 (.93)	
ADVDEG	4.19 (.13)	-	-13.54 (.48)	
VT2YR	8.89 (2.76)**	-	-5.35 (1.40)	
GOVT	1.51 (.17)	12.39 (.82)	-14.88 (1.28)	-14.15 (.99)
CONSTANT	1.09	5.12	-7.59	1.92
n	1241	571	1447	706
R^2	.04	.04	.12	.15
$\overline{R}^2$	.03	.02	.11	.13
F	3.81	2.09	13.19	10.73

TABLE 5.13

TRAINING-RELATED EMPLOYMENT, CURRENT JOB
VOCATIONAL STUDENTS
CLASS OF '72

	Men		Women	
Sample:	ALL	NOCOL	ALL	NOCOL
Explanatory Variables:	Bx100(t)	Bx100(t)	Bx100(t)	Bx100(t)
BSNS	-9.01 (2.16)**	-9.11 (1.49)	-2.17 (.74)	-1.94 (.46)
MARKET	-1.26 (.29)	-3.89 (.64)	1.56 (.33)	7.63 (1.10)
TRADE	-5.89 (1.81)*	-2.55 (.56)	-.90 (.17)	2.52 (.29)
RACE	-3.61 (2.36)**	-4.06 (1.71)*	-3.34 (1.94)*	-4.81 (1.82)*
RURAL	1.45 (.61)	.38 (.10)	.33 (.16)	-3.57 (1.19)
SES	-.26 (.62)	-.31 (.73)	-.17 (.72)	-.17 (.58)
TENURE	.86 (2.04)**	1.06 (1.79)*	.55 (1.32)	.98 (1.78)*
EXPER	1.00 (1.08)	-.15 (.09)	.60 (.84)	.50 (.46)
APP	1.20 (.16)	2.80 (.22)	-25.51 (1.27)	-30.75 (.76)
EMPSP	3.18 (.75)	-.31 (.04)	7.53 (2.13)**	12.55 (2.37)**
MOS	4.23 (.56)	14.42 (.95)	27.52 (1.37)	
COLL4YR	6.83 (1.14)	-	4.20 (.82)	
ADVDEG	-1.55 (.62)	-	41.09 (1.74)*	
VT2YR	6.63 (2.23)**	-	3.67 (1.15)	
GOVT	4.96 (.63)	23.27 (1.63)	-3.62 (.45)	-18.22 (1.35)
CONSTANT	17.74	23.88	16.30	17.70
n	1351	620	1511	746
R^2	.02	.02	.01	.03
R^2	.01	.00	.00	.01
F	1.84	1.06	1.47	1.86

TABLE 5.14

FIRST FULL-TIME OCCUPATION BY CURRICULUM

YOUNGER ADULT WORKERS

X44		CUR 1 VOCATIONAL	3 COLLEGE PREP	4 GENERAL	ROW TOTAL
PROFESSIONAL	1	42	130	21	193
		21.8	67.4	10.9	15.3
		6.2	35.4	9.6	
		3.3	10.3	1.7	
MANAGERIAL	2	27	33	5	65
		41.5	50.8	7.7	5.2
		4.0	9.0	2.3	
		2.1	2.6	0.4	
SALES	3	45	24	20	89
		50.6	27.0	22.5	7.1
		6.7	6.5	9.2	
		3.6	1.9	1.6	
CLERICAL	4	250	77	45	372
		67.2	20.7	12.1	29.5
		37.0	21.0	20.6	
		19.8	6.1	3.6	
CRAFTS	5	96	29	25	150
		64.0	19.3	16.7	11.9
		14.2	7.9	11.5	
		7.6	2.3	2.0	
OPERATIVES	6	103	24	45	172
		59.9	14.0	26.2	13.6
		15.2	6.5	20.6	
		8.2	1.9	3.6	
LABOR	7	29	19	23	71
		40.8	26.8	32.4	5.6
		4.3	5.2	10.6	
		2.3	1.5	1.8	
FARM	8	9	4	6	19
		47.4	21.1	31.6	1.5
		1.3	1.1	2.8	
		0.7	0.3	0.5	
SERVICE	9	73	24	28	125
		58.4	19.2	22.4	9.9
		10.8	6.5	12.8	
		5.8	1.9	2.2	
DK-NA	99	2	3	0	5
		40.0	60.0	0.0	0.4
		0.3	0.8	0.0	
		0.2	0.2	0.0	
COLUMN TOTAL		676	367	218	1261
		53.6	29.1	17.3	100.0

NUMBER OF MISSING OBSERVATIONS = 7

TABLE 5.15

MOST RECENT OCCUPATION BY CURRICULUM

YOUNGER ADULT WORKERS

X60X	CUR	1 VOCATIONAL	3 COLLEGE PREP	4 GENERAL	ROW TOTAL
PROFESSIONAL	1	46	109	23	178
		25.8	61.2	12.9	18.7
		9.1	39.6	13.5	
		4.8	11.5	2.4	
MANAGERIAL	2	47	37	18	102
		46.1	36.3	17.6	10.7
		9.3	13.5	10.5	
		4.9	3.9	1.9	
SALES	3	25	25	7	57
		43.9	43.9	12.3	6.0
		5.0	9.1	4.1	
		2.6	2.6	0.7	
CLERICAL	4	153	37	26	216
		70.8	17.1	12.0	22.7
		30.4	13.5	15.2	
		16.1	3.9	2.7	
CRAFTS	5	95	21	26	14
		66.9	14.8	18.3	14.9
		18.8	7.6	15.2	
		10.0	2.2	2.7	
OPERATIVES	6	74	22	32	128
		57.8	17.2	25.0	13.5
		14.7	8.0	18.7	
		7.8	2.3	3.4	
LABOR	7	16	7	15	38
		42.1	18.4	39.5	4.0
		3.2	2.5	8.8	
		1.7	0.7	1.6	
FARM	8	4	4	3	11
		36.4	36.4	27.3	1.2
		0.8	1.5	1.8	
		0.4	0.4	0.3	
SERVICE	9	44	13	21	78
		56.4	16.7	26.9	8.2
		8.7	4.7	12.3	
		4.6	1.4	2.2	
COLUMN TOTAL		504	275	171	950
		53.1	28.9	18.0	100.0

NUMBER OF MISSING OBSERVATIONS = 318

TABLE 5.16

FIRST FULL-TIME OCCUPATION BY VOCATIONAL PROGRAM

YOUNGER ADULT WORKERS

X44	V23 AGRICULTURE 1	MKTG,D.E 2	HEALTH 3	HOME ECO HOMICS 4	TRADE OR INDUSTR 5	BUSINESS OFFICE 6	OTHER 7	ROW TOTAL
1 PROFESSIONAL	3	0	5	0	14	19	1	42
	7.1	0.0	11.9	0.0	33.3	45.2	2.4	6.3
	9.4	0.0	38.5	0.0	6.2	5.6	8.3	
	0.5	0.0	0.8	0.0	2.1	2.9	0.2	
2 MANAGERIAL	1	4	0	0	7	15	0	27
	3.7	14.8	0.0	0.0	25.9	55.6	0.0	4.1
	3.1	17.4	0.0	0.0	3.1	4.4	0.0	
	0.2	0.6	0.0	0.0	1.1	2.3	0.0	
3 SALES	0	5	0	0	15	24	0	44
	0.0	11.4	0.0	0.0	34.1	54.5	0.0	6.6
	0.0	21.7	0.0	0.0	6.7	7.1	0.0	
	0.0	0.8	0.0	0.0	2.3	3.6	0.0	
4 CLERICAL	2	8	2	5	17	208	5	247
	0.8	3.2	0.8	2.0	6.9	84.2	2.0	37.3
	6.3	34.8	15.4	27.8	7.6	61.2	41.7	
	0.3	1.2	0.3	0.8	2.6	31.4	0.8	
5 CRAFTS	6	0	0	0	72	13	2	93
	6.5	0.0	0.0	0.0	77.4	14.0	2.2	14.0
	18.8	0.0	0.0	0.0	32.0	3.8	16.7	
	0.9	0.0	0.0	0.0	10.9	2.0	0.3	
6 OPERATIVES	8	1	2	7	60	21	1	100
	8.0	1.0	2.0	7.0	60.0	21.0	1.0	15.1
	25.0	4.3	15.4	38.9	26.7	6.2	8.3	
	1.2	0.2	0.3	1.1	9.0	3.2	0.2	
7 LABOR	3	2	1	1	14	6	1	28
	10.7	7.1	3.6	3.6	50.0	21.4	3.6	4.2
	9.4	8.7	7.7	5.6	6.2	1.8	8.3	
	0.5	0.3	0.2	0.2	2.1	0.9	0.2	
8 FARM	6	0	0	0	2	1	0	9
	66.7	0.0	0.0	0.0	22.2	11.1	0.0	1.4
	18.8	0.0	0.0	0.0	0.9	0.3	0.0	
	0.9	0.0	0.0	0.0	0.3	0.2	0.0	
9 SERVICE	2	3	3	5	23	33	2	71
	2.8	4.2	4.2	7.0	32.4	46.5	2.8	10.7
	6.3	13.0	23.1	27.8	10.2	9.7	16.7	
	0.3	0.5	0.5	0.8	3.5	5.0	0.3	
99 DK-NA	1	0	0	0	1	0	0	2
	50.0	0.0	0.0	0.0	50.0	0.0	0.0	0.3
	3.1	0.0	0.0	0.0	0.4	0.0	0.0	
	0.2	0.0	0.0	0.0	0.2	0.0	0.0	
COLUMN TOTAL	32	23	13	18	225	340	12	663
	4.8	3.5	2.0	2.7	33.9	51.3	1.8	100.0

NUMBER OF MISSING OBSERVATIONS = 605

TABLE 5.17

MOST RECENT OCCUPATION BY VOCATIONAL PROGRAM

YOUNGER ADULT WORKERS

X60I	V23	1 AGRICULTURE	2 MKTG,D.E	3 HEALTH	4 HOME ECONOMICS	5 TRADE OR INDUSTR	6 BUSINESS OFFICE	7 OTHER	ROW TOTAL
PROFESSIONAL	1	1	0	4	2	17	20	1	45
		2.2	0.0	8.9	4.4	37.8	44.4	2.2	9.1
		3.7	0.0	44.4	15.4	9.7	8.2	12.5	
		0.2	0.0	0.8	0.4	3.4	4.0	0.2	
MANAGERIAL	2	2	5	0	0	10	30	0	47
		4.3	10.6	0.0	0.0	21.3	63.8	0.0	9.5
		7.4	27.8	0.0	0.0	5.7	12.3	0.0	
		0.4	1.0	0.0	0.0	2.0	6.1	0.0	
SALES	3	2	3	0	0	6	13	0	24
		8.3	12.5	0.0	0.0	25.0	54.2	0.0	4.9
		7.4	16.7	0.0	0.0	3.4	5.3	0.0	
		0.4	0.6	0.0	0.0	1.2	2.6	0.0	
CLERICAL	4	3	7	1	2	14	121	2	150
		2.0	4.7	0.7	1.3	9.3	80.7	1.3	30.4
		11.1	38.9	11.1	15.4	8.0	49.8	25.0	
		0.6	1.4	0.2	0.4	2.8	24.5	0.4	
CRAFTS	5	8	1	1	2	66	13	2	93
		8.6	1.1	1.1	2.2	71.0	14.0	2.2	18.8
		29.6	5.6	11.1	15.4	37.5	5.3	25.0	
		1.6	0.2	0.2	0.4	13.4	2.6	0.4	
OPERATIVES	6	6	1	1	3	44	18	0	73
		8.2	1.4	1.4	4.1	60.3	24.7	0.0	14.8
		22.2	5.6	11.1	23.1	25.0	7.4	0.0	
		1.2	0.2	0.2	0.6	8.9	3.6	0.0	
LABOR	7	1	0	1	0	8	4	1	15
		6.7	0.0	6.7	0.0	53.3	26.7	6.7	3.0
		3.7	0.0	11.1	0.0	4.5	1.6	12.5	
		0.2	0.0	0.2	0.0	1.6	0.8	0.2	
FARM	8	3	0	0	0	0	1	0	4
		75.0	0.0	0.0	0.0	0.0	25.0	0.0	0.8
		11.1	0.0	0.0	0.0	0.0	0.4	0.0	
		0.6	0.0	0.0	0.0	0.0	0.2	0.0	
SERVICE	9	1	1	1	4	11	23	2	43
		2.3	2.3	2.3	9.3	25.6	53.5	4.7	8.7
		3.7	5.6	11.1	30.8	6.3	9.5	25.0	
		0.2	0.2	0.2	0.8	2.2	4.7	0.4	
COLUMN TOTAL		27	18	9	13	176	243	8	494
		5.5	3.6	1.8	2.6	35.6	49.2	1.6	100.0

NUMBER OF MISSING OBSERVATIONS = 774

TABLE 5.18

PERCENT SELF-EMPLOYED
YOUNGER ADULT WORKERS

% (n Self-Employed/Total)

Curriculum or Program	First Job	Most Recent Job
Vocational	1.6% (11/676)	4.7% (31/657)
College-Prep	3.5% (13/367)	7.5% (27/362)
General	3.2% (7/218)	4.2% (9/215)
Trade	1.3% (3/225)	5.9% (13/220)
Business	0.6% (2/340)	3.4% (11/328)

TABLE 5.19

SELF-EMPLOYED
YOUNGER ADULT WORKERS

Variable	Men		Women	
	First Job B (t)	Most Recent Job B (t)	First Job B (t)	Most Recent Job B (t)
RACE	.02 (.81)	-.03 (.80)	-.01 (1.00)	-.03 (1.32)
SES	.04 (3.56)**	.02 (.82)	-.01 (.81)	.01 (.70)
RURAL	.02 (1.13)	.06 (2.36)**	.01 (.86)	.01 (.78)
ADVDEG	.06 (1.61)	-.05 (1.10)	-.03 (1.40)	-.01 (.27)
COLL4YR	-.02 (.82)	.04 (1.37)	.01 (1.30)	.01 (.55)
EMPSP	-.02 (.98)	-.02 (.80)	.00 (.03)	-.02 (1.07)
PVT	.02 (.97)	.04 (1.28)	.02 (2.14)**	.04 (1.74)*
PCCT	.00 (.08)	-.02 (.54)	-.01 (.84)	.01 (.49)
GVT	-.04 (.95)	-.02 (.32)	.01 (.21)	-.03 (.56)
MOS	-.01 (.54)	-.01 (.23)	.08 (3.19)**	-.03 (.48)
APP	.02 (.79)	.04 (1.23)	-.01 (1.04)	.06 (1.88)*
CLPREP	-.01 (.62)	.03 (.80)	.02 (1.66)*	.00 (.16)
BSNS	-.04 (1.34)	.03 (.60)	.00 (.40)	.00 (.00)
MARKET	-.05 (.69)	-.06 (.68)	.00 (.07)	.05 (.94)
TRADE	-.04 (1.75)*	.00 (.09)	.00 (.16)	.12 (2.54)**
OTHER	.11 (2.73)**	-.02 (.38)	.04 (1.95)*	-.02 (.57)
CONSTANT	-.08	-.01	.01	-.01
n	634	555	605	524
R^2	.05	.03	.04	.05
$\overline{R}^2$	.03	.00	.02	.02
F	2.33	1.08	1.66	1.58

TABLE 5.20

SELF-EMPLOYED, MOST RECENT JOB
CLASS OF '72

	MEN		WOMEN	
Sample:	ALL	NOCOL	ALL	NOCOL
Explanatory Variables:	Bx100(t)	Bx100(t)	Bx100(t)	Bx100(t)
BSNS	2.08 (1.23)	-1.55 (.58)	-1.00 (1.87)*	-.93 (1.06)
MARKET	-.81 (.47)	.46 (.17)	-1.74 (1.23)	-3.13 (1.39)
TRADE	-1.80 (1.94)*	-.47 (.32)	.14 (.08)	-4.19 (1.34)
OTHER	2.31 (1.46)	1.20 (.52)	.72 (.71)	.01 (.00)
CLPREP	.77 (1.23)	.64 (.43)	-.02 (.05)	.83 (.72)
RACE	-.45 (1.70)*	-1.29 (2.34)**	-.21 (1.06)	.06 (.14)
RURAL	2.92 (5.37)**	2.80 (2.65)**	1.72 (4.62)**	2.75 (3.67)**
SES	.00 (.05)	-.03 (.70)	.00 (.08)	.05 (1.26)
TENURE	.24 (2.13)**		.18 (2.19)**	
EXPER	.06 (.32)		.02 (.14)	
APP	-2.59 (1.23)		-1.37 (.39)	
EMPSP	-3.60 (4.04)**		-.57 (.95)	
MOS	-4.72 (2.84)**		-1.74 (.74)	
COLL4YR	-2.20 (3.01)**		-.92 (1.96)**	
ADVDEG	.43 (.30)		-.56 (.56)	
VT2YR	-1.31 (1.89)*		-.05 (.09)	
GOVT	1.64 (.74)		-2.20 (1.66)*	
CONSTANT	4.56	5.05	2.50	1.47
n	7699	2261	6721	2001
R^2	.01	.01	.01	.01
$\bar{R}^2$	.01	.00	.00	.01
F	6.31	1.91	2.67	2.73

TABLE 5.21

UNIONIZATION
YOUNGER ADULT WORKERS

Race-Sex Group and Curriculum	Percentage of Students in Unionized Jobs	
	First Job	Most Recent Job
Male		
Vocational	28.4	33.3
College Prep	26.4	21.9
General	29.5	32.5
Female		
Vocational	22.3	23.9
College Prep	22.9	22.1
General	30.5	34.4
Both Sexes		
Vocational	25.3	28.3
College Prep	24.7	22.0
General	29.8	33.3

TABLE 5.22

UNIONIZATION
YOUNGER ADULT WORKERS

Variable	Men		Women	
	First Job B (t)	Most Recent Job B (t)	First Job B (t)	Most Recent Job B (t)
RACE	.16 (2.70)**	.04 (.67)	.05 (.90)	-.01 (.14)
SES	-.02 (.55)	-.01 (.19)	.03 (1.02)	.01 (.24)
RURAL	-.04 (.90)	-.06 (1.28)	.02 (.55)	.00 (.03)
ADVDEG	-.01 (.17)	.03 (.31)	.25 (2.63)**	.34 (3.66)**
COLL4YR	-.05 (.81)	-.17 (3.11)**	-.12 (2.15)**	-.15 (2.75)**
EMPSP	-.17 (3.40)**	-.03 (.56)	-.03 (.70)	-.04 (.81)
PVT	-.06 (1.19)	.06 (1.19)	-.05 (.87)	-.09 (1.55)
PCCT	-.08 (1.30)	-.09 (1.50)	.01 (.10)	-.01 (.25)
GVT	-.00 (.03)	-.03 (.36)	-.04 (1.00)	.06 (.44)
MOS	.04 (.64)	-.07 (1.18)	.01 (.06)	-.09 (.65)
APP	.10 (1.79)*	.08 (1.56)	.01 (.75)	.04 (.64)
CLPREP	.01 (.24)	-.08 (1.39)	-.07 (1.16)	-.11 (1.89)*
BSNS	-.17 (2.15)**	-.15 (1.90)*	-.09 (1.68)*	-.14 (2.71)**
MARKET+	-.08 (.48)	-.29 (1.74)*	-.07 (.55)	-.11 (.83)
TRADE	.02 (.38)	.03 (.47)	-.05 (.47)+	-.01 (.06)+
OTHER	-.11 (1.15)	.02 (.24)	.02 (.17)	-.01 (.05)
MARRIED	-	-	-.02 (.52)	-.04 (1.03)
CONSTANT	.40	.41	.24	.38
n	565	565	553	553
R^2	.06	.07	.03	.05
$\bar{R}^2$	.04	.04	.00	.02
F	2.29	2.57	.98	1.81

TABLE 5.23

UNIONIZATION, MOST RECENT JOB
NLS-LME

	Men		Women	
Sample:	ALL	NOCOL	ALL	NOCOL
Explanatory Variables:	B (t)	B (t)	B (t)	B (t)
VOCATIONAL	.08 (1.86)*	.05 (.56)	-.08 (1.12)	-.10 (1.25)
BSNS	.02 (.26)	.02 (.30)	-.04 (1.31)	-.03 (.88)
CLPREP	-.03 (1.04)	.04 (.66)	-.02 (.57)	-.03 (.72)
UNEMP	.00 (.67)	.00 (.42)	.01 (1.02)	-.00 (.05)
AGE	-.03 (.40)	.16 (1.13)	.16 (1.95)*	.11 (.99)
AGESQ/100	.06 (.43)	-.26 (1.08)	-.28 (1.91)*	-.19 (1.02)
RACE	.10 (2.56)**	.09 (1.43)	.09 (2.86)**	.13 (3.17)**
SES/100	-.13 (1.68)	.04 (.30)	-.05 (.74)	-.03 (.33)
RURAL	-.07 (1.73)*	-.13 (2.25)**	-.01 (.17)	-.01 (.23)
CITYGEN	.02 (.70)	-.05 (.97)	-.01 (.51)	-.02 (.47)
SOUTH	-.20 (6.34)**	-.24 (4.62)**	-.17 (6.25)**	-.16 (4.31)**
MARRIED	-	-	-.01 (.32)	.05 (1.12)
WIDOWED	-	-	-.24 (1.16)	-.13 (.56)
DIV/SEP	-	-	.01 (.25)	.04 (.72)
MDHOUSE	-	-	-.06 (1.04)	-.11 (1.47)
HOUSE	-	-	.01 (1.44)	-.01 (.44)
CONSTR	.05 (1.06)		-.22 (1.43)	
MFG	.09 (3.14)**		.03 (1.03)	
HSC16	-.15 (3.98)**		-.00 (.05)	
HSC16+	.08 (1.67)*		.22 (4.63)**	
PROFTECH	-.00 (.06)		.04 (1.25)	
MANAGE	-.20 (3.94)**		-.12 (2.26)**	
CLRCSLS	-.04 (.55)		-.06 (1.81)*	
SKILLED	.08 (1.89)*		-.01 (.15)	
OTHRTR	.06 (1.78)*		-.00 (.04)	
CONSTANT	.95	-1.89	-2.01	-1.17
n	1201	510	1225	618
R^2	.13	.08	.09	.06
$\bar{R}^2$	.11	.06	.08	.04
F	8.54	4.18	5.01	2.44

TABLE 5.24
TENURE (IN MONTHS)
YOUNGER ADULT WORKERS

Variable	Men		Women	
	First Job B (t)	Most Recent Job B (t)	First Job B (t)	Most Recent Job B (t)
RACE	.68 (.13)	-5.68 (1.26)	-6.83 (1.46)	1.79 (.43)
SES	.55 (.20)	-6.89 (2.91)**	-6.52 (2.48)**	-2.36 (1.00)
RURAL	-2.97 (.77)	1.86 (.57)	-3.40 (.98)	1.29 (.41)
ADVDEG	19.44 (2.61)**	-.79 (.13)	-2.11 (.28)	5.57 (.83)
COLL4YR	-4.75 (.96)	-3.36 (.81)	-8.82 (1.94)*	.50 (.12)
EMPSP	3.31 (.76)	3.84 (1.04)	4.68 (1.22)	9.67 (2.81)**
PVT	3.93 (.26)	7.72 (1.90)**	3.35 (.73)	1.70 (.41)
PCCT	1.89 (.35)	3.54 (.77)	-3.42 (.73)	.30 (.07)
GVT	-11.59 (1.35)	-11.29 (1.56)	12.18 (1.18)	-12.86 (1.39)
MOS	7.04 (1.38)	6.35 (1.47)	-14.26 (1.28)	-4.54 (.45)
APP	-2.08 (.44)	2.62 (.65)	-8.83 (1.58)	-1.46 (.29)
CLPREP	-1.31 (.26)	1.54 (.36)	13.09 (2.65)**	1.27 (.29)
BSNS	1.90 (.27)	2.03 (.34)	5.47 (1.28)	7.93 (2.07)**
MARKET+	15.03 (1.01)	-5.42 (.43)	-10.54 (.98)	-8.41 (.87)
TRADE	-2.58 (.54)	-1.48 (.37)	-.46 (.82)	12.94 (1.62)*
OTHER	-1.73 (.21)	-6.29 (.89)	8.13 (1.08)	-5.50 (.81)
MARRIED			2.74 (.90)	7.11 (2.59)**
CONSTANT	38.42	45.23	50.27	20.79
n	565	565	553	553
R^2	.03	.04	.06	.06
$\overline{R}^2$	.00	.01	.03	.03
F	.97	1.43	1.99	1.97

TABLE 5.25

TENURE (IN MONTHS), MOST RECENT JOB
CLASS OF '72

	Men		Women	
Sample:	ALL	NOCOL	ALL	NOCOL
Explanatory Variables:	B (t)	B (t)	B (t)	B (t)
BSNS	5.23 (2.50)**	6.12 (1.62)	4.43 (4.72)**	3.33 (1.98)**
MARKET	5.27 (2.45)**	10.49 (2.80)**	.53 (.21)	5.16 (1.18)
TRADE	.48 (.42)	-1.96 (.95)	.61 (.20)	5.37 (.88)
OTHER	6.60 (3.35)**	8.36 (2.57)**	2.25 (1.26)	5.98 (1.98)**
CLPREP	.43 (.54)	3.36 (1.61)	-1.06 (1.36)	-4.52 (2.08)**
RACE	-.03 (.08)	-.08 (.10)	.70 (1.99)**	.81 (.97)
RURAL	3.66 (5.43)**	4.39 (2.95)**	3.09 (4.69)**	2.28 (1.60)
SES	-.02 (.69)	-.05 (.88)	.01 (.41)	.10 (1.36)
EXPER	1.06 (4.76)**	-.26 (.42)	2.22 (10.81)**	5.06 (10.74)**
APP	8.51 (3.27)**	9.39 (1.47)	-1.65 (.27)	-3.04 (.17)
EMPSP	.44 (.39)	-2.50 (.92)	1.13 (1.07)	-3.16 (1.17)
MOS	1.59 (.77)	1.80 (.34)	.35 (.08)	7.61 (.69)
COLL4YR	-13.91 (15.59)**	-	-7.60 (9.21)**	
ADVDEG	-7.03 (3.98)**	-	-3.03 (1.72)*	
VT2YR	-1.59 (1.85)*	-	-2.24 (2.54)**	
GOVT	-8.24 (3.01)**	-4.90 (.77)	-9.82 (4.20)**	-7.86 (1.46)
CONSTANT	28.23	39.68	16.92	5.09
n	7599	2199	6721	1952
R^2	.09	.02	.07	.07
$\bar{R}^2$	.08	.01	.07	.06
F	44.39	2.64	32.67	11.08

TABLE 5.26

HOURS WORKED PER WEEK
YOUNGER ADULT WORKERS

	Men		Women	
	First Job	Most Recent Job	First Job	Most Recent Job
Sample	NOCOL	ALL	NOCOL	ALL
Variable	B (t)	B (t)	B (t)	B (t)
RACE	-3.14 (1.70)*	-1.30 (.79)	-.83 (.88)	-1.70 (1.16)
SES	2.16 (1.77)*	.08 (.09)	-.52 (.80)	.22 (.24)
RURAL	1.23 (.91)	.99 (.86)	-.43 (.58)	-.06 (.04)
CLPREP	-5.15 (2.30)**	-.01 (.00)	1.45 (1.08)	-.09 (.05)
BSNS	-4.18 (1.61)	-.82 (.38)	.72 (.79)	.99 (.69)
OTHER	1.07 (.43)	-.34 (.13)	2.64 (1.83)*	-.52 (.19)
TRADE	-1.12 (.71)	1.22 (.85)	1.61 (.74)+	1.39 (.47)+
MARKET+	-5.93 (1.03)	3.58 (.84)	-1.22 (.52)	1.99 (.55)
EMPSP	-2.84 (1.62)	2.23 (1.74)*	-.52 (.52)	-1.22 (.97)
APP	2.74 (1.32)	.79 (.53)	-1.33 (.73)	.87 (.43)
GVT	-4.18 (1.82)*	-2.50 (1.00)	-.49 (.25)	-1.86 (.56)
MOS	-1.91 (.90)	.60 (.38)	-.62 (.28)	1.12 (.26)
MOTC		.37 (.26)		-.95 (65)
EXPER		.09 (.89)		.09 (.92)
COLL4YR		1.13 (.75)		2.28 (1.46)
ADVDEG		2.30 (.97)		-1.76 (.67)
PVT		1.23 (.88)		4.11 (2.64)**
PCCT		-.93 (.57)		1.33 (.87)
UNION		-1.00 (.88)		1.52 (1.30)
TENURE		-.09 (.46)		.02 (.10)
MARRIED		-		-2.09 (1.99)*
CONSTANT	39.71	43.01	40.19	38.66
n	242	511	247	502
R^2	.09	.0?	.03	.04
$\overline{R}^2$	.04	-.01	-.02	.00
F	1.84	.72	.57	.99

TABLE 5.27

HOURS WORKED PER WEEK, MOST RECENT JOB
CLASS OF '72

	Men		Women	
Sample:	ALL	NOCOL	ALL	NOCOL
Explanatory Variables:	B (t)	B (t)	B (t)	B (t)
BSNS	-.09 (.13)	-.60 (.62)	-.29 (1.11)	-.39 (1.01)
MARKET+	.54 (.80)	1.06 (1.12)	-.41 (.59)	-1.36 (1.35)
TRADE	.29 (.79)	.73 (1.38)	-.30 (.35)+	-.27 (.20)+
OTHER	1.29((2.04)	1.70 (2.05)**	-.24 (.48)	.47 (.69)
CLPREP	-.16 (.65)	.23 (.44)	-.60 (2.76)**	.05 (.09)
RACE	-.26 (2.49)**	-.45 (2.34)**	-.06 (.60)	.10 (.52)
PURAL	1.52 (7.04)**	1.29 (3.41)**	-.31 (1.67)*	-.23 (.70)
SES	-.00 (.22)	-.02 (1.01)	.00 (.15)	.01 (.89)
TENURE	.24 (5.33)**		.17 (4.16)**	
EXPER	.01 (.09)		.01 (.16)	
APP	-2.59 (3.14)**		1.16 (.65)	
EMPSP	1.19 (3.37)**		.70 (2.41)**	
MOS	2.30 (3.49)**		4.18 (3.61)**	
COLL4YR	.12 (.42)		1.29 (5.54)**	
ADVDEG	-.94 (1.60)		-.26 (.52)	
VT2YR	-.58 (2.13)**		-.23 (.94)	
GOVT	-1.48 (1.70)*		-.03 (.04)	
CONSTANT	42.34	43.65	38.58	39.00
n	7022	2111	6085	1775
R^2	.02	.01	.01	.00
$\bar{R}^2$	.02	.01	.01	.00
F	9.23	3.28	4.34	.64

TABLE 5.28

HOURS WORKED PER WEEK, MOST RECENT JOB
NLS-LME

Sample:	Men				Women			
	ALL		NOCOL		ALL		NOCOL	
Explanatory Variables:	B	(t)	B	(t)	B	(t)	B	(t)
VOCATIONAL	-1.15	(1.55)	-1.37	(1.60)	-.11	(.09)	-.25	(.22)
BSNS	-1.39	(1.18)	-1.93	(1.38)	-.27	(.47)	-.23	(.40)
CLPRFP	-.66	(1.19)	-.03	(.03)	.77	(1.47)	.47	(.68)
UNEMP	.18	(1.64)*	.14	(.96)	-.09	(1.00)	-.01	(.08)
AGE	-.09	(.06)	-1.63	(.78)	-.79	(.57)	-.94	(.60)
AGESQ/100	.45	(.18)	2.95	(.82)	1.40	(.57)	1.51	(.54)
PACF	-2.00	(3.03)**	-2.22	(2.36)**	.36	(.68)	.69	(1.13)
SES/100	.15	(.11)	1.48	(.68)	-.50	(.44)	-.88	(.64)
RURAL	.91	(1.40)	2.04	(2.35)**	-.59	(.93)	.05	(.07)
CITYCEN	-.62	(1.23)	-.12	(.15)	-.04	(.09)	-.15	(.26)
SOUTH	-.18	(.34)	-.05	(.06)	1.25	(2.69)**	1.07	(2.03)**
MARRIED	-		-		-1.79	(3.71)**	-1.75	(2.92)**
WIDOWED	-		-		1.38	(.39)	2.33	(.69)
DIV/SEP	-		-		-.42	(.64)	-.25	(.33)
MDHOUSE	-		-		-2.81	(2.91)**	-.91	(.85)
HOUSE	-		-		-.45	(2.90)**	-.30	(1.78)*
UNION	-1.46	(2.99)**			1.08	(2.22)**		
CONSTR	-1.78	(2.11)**			2.08	(.79)		
MFG	-.53	(.106)			2.41	(4.47)**		
HSC16	-.14	(.22)			.97	(1.63)		
HSC16+	.99	(1.26)			.22	(.27)		
PROFTECH	.27	(.47)			.69	(1.34)		
MANAGE	1.69	(2.02)**			.80	(.87)		
CLRCSLS	-.94	(.85)			.67	(1.14)		
SKILLED	.06	(.08)			.92	(.106)		
OTHERTR	.09	(.17)			-.20	(.40)		
CONSTANT	42.02		63.05		51.43		54.74	
n	1201		510		1225		618	
R^2	.05		.05		.07		.05	
$\bar{R}^2$	.04		.03		.05		.03	
F	3.25		2.28		3.52		2.10	

TABLE 5.29

NUMBER OF FULL-TIME JOBS
YOUNGER ADULT WORKERS

Mobility Status Variable	Men						Women					
	Downward		No change		Upward		Downward		No Change		Upward	
	B	(t)	B	(t)	B	(t)	B	(t)	B	(t)	B	(t)
SES	-.18	(.50)	-.31	(1.86)*	.13	(.68)	-1.27	(3.93)**	-.10	(.55)	.05	(.18)
RACE	-.65	(.89)	-.30	(.96)	-.32	(.95)	-.85	(1.70)*	-.10	(.28)	.48	(1.19)
RURAL	-.69	(.89)	-.21	(.87)	.07	(.31)	-.60	(1.49)	.30	(1.17)	-.39	(1.23)
EXPER	.11	(1.94)*	.12	(4.78)**	.06	(3.23)**	.09	(2.34)**	.04	(2.55)**	.07	(4.01)**
CLPREP	-1.80	(2.89)**	-.2?	(.79)	-.12	(.39)	.68	(1.20)	.20	(.59)	-1.20	(2.74)**
BSNS	-1.07	(1.08)	-.7	.69)*	-.11	(.24)	.08	(.16)	.02	(.07)	-.99	(2.59)**
TRADE	-0.66	(1.06)	-.11	(.39)	.18	(.63)	2.20	(1.74)*	.21	(.34)	-1.19	(1.71)*
MARKET	-1.50	(.91)	-.91	(.96)	.27	(.34)	1.05	(.50)	.33	(.46)	-1.35	(1.55)
OTHER	-2.09	(2.09)**	-.87	(1.64)	-.17	(.32)	.73	(.73)	-.35	(.67)	-1.23	(1.69)*
CONSTANT	4.46		2.68		2.14		6.31		1.94		3.36	
n	146		239		260		136		254		224	
R^2	.13		.14		.05		.17		.04			
$\bar{R}^2$	.97		.10		.01		.11		.00			
F	2.24		4.05		1.41		2.94		1.07		3.34	

TABLE 5.30

MONTHS ON THE LONGEST JOB
YOUNGER ADULT WORKERS

Variable	Men B (t)	Women B (t)
MARRIED		3.99 (.60)
RACE	-12.99 (.84)	-6.06 (.63)
RURAL	4.68 (.42)	3.44 (.46)
EXPER	5.08 (5.16)**	1.63 (3.37)**
SES	4.59 (.56)	-11.05 (1.93)*
CLPREP	1.06 (.07)	8.68 (.81)
ADVDEG	22.72 (1.03)	5.97 (.36)
COLL4YR	-17.74 (1.22)	-10.76 (1.10)
EMPSP	5.33 (.42)	10.83 (1.30)
APP	-11.17 (.79)	27.59 (2.21)**
PVT	2.91 (.20)	15.08 (1.52)
PCCT	-10.47 (.66)	-9.92 (.99)
GOVT	27.19 (1.07)	-6.81 (.31)
MOS	15.90 (1.05)	-20.42 (.89)
BSNS	14.92 (.71)	13.14 (1.43)
MARKET+	-22.71 (.53)	-10.23 (.44)
TRADE	-6.57 (.47)	.90 (.04)+
OTHER	-17.16 (.70)	40.18 (2.41)**
CONSTANT	24.53	60.60
n	635	605
R^2	.06	.07
$\overline{R}^2$	.03	.04
F	2.15	2.36

TABLE 6.1

SATISFACTION WITH JOB PREPARATION

BY CURRICULUM, RACE AND SEX

YOUNGER ADULT WORKERS

RS	CUR MEAN COUNT SUM STD DEV	VOCATIONAL 1	COLLEGE PREP 3	GENERAL 4	ROW TOTAL
WHITE MALE	1	2.75 245 674.00 1.00	2.49 186 464.00 1.01	2.14 102 218.00 0.97	2.54 533 1356.00 1.02
WHITE FEMALE	2	3.01 309 930.00 0.97	2.61 131 342.00 0.95	2.36 73 172.00 0.92	2.81 513 1444.00 0.99
MINOR MALE	3	2.88 57 164.00 0.85	2.43 21 51.00 1.08	2.44 16 39.00 0.96	2.70 94 254.00 0.94
MIN FEM	4	3.09 47 145.00 0.93	2.68 22 59.00 1.21	2.62 21 55.00 1.07	2.88 90 259.00 1.05
COLUMN TOTAL		2.91 658 1913.00 0.97	2.54 360 916.00 1.01	2.28 212 484.00 0.97	2.69 1230 3313.00 1.01

NUMBER OF MISSING OBSERVATIONS = 17

TABLE 6.2

SATISFACTION WITH JOB PREPARATION

BY VOCATIONAL PROGRAM, RACE AND SEX

YOUNGER ADULT WORKERS

V23

RS	MEAN / COUNT / SUM / STD DEV	AGRICULTURE 1	MKTG,D.E 2	HEALTH 3	HOME ECONOMICS 4	TRADE OR INDUSTR 5	BUSINESS OFFICE 6	OTHER 7	ROW TOTAL
WHITE MALE	1	2.65	2.89	3.00	3.00	2.84	2.38	2.13	2.7
		23	9	1	1	157	39	8	236
		61.00	26.00	3.00	3.00	446.00	93.00	17.00	649.0
		1.03	1.27	0.0	0.0	0.94	1.11	0.99	1.0
WHITE FEMALE	2	2.50	3.31	2.27	2.80	3.11	3.04	2.67	3.0
		2	13	11	10	18	248	3	305
		5.00	43.00	25.00	28.00	56.00	753.00	8.00	918.0
		0.71	0.85	1.10	1.23	0.96	0.95	1.53	0.9
MINOR MALE	3	3.67	0.0	0.0	2.33	2.85	2.90	3.00	2.8
		3	0	0	3	39	10	1	56
		11.00	0.0	0.0	7.00	111.00	29.00	3.00	161.0
		0.58	0.0	0.0	0.58	0.93	0.57	0.0	0.8
MIN FEM	4	3.00	0.0	4.00	3.00	2.40	3.14	0.0	3.0
		1	0	1	3	5	36	0	46
		3.00	0.0	4.00	9.00	12.00	113.00	0.0	141.0
		0.0	0.0	0.0	1.73	0.89	0.87	0.0	0.9
COLUMN TOTAL		2.76	3.14	2.46	2.76	2.85	2.97	2.33	2.9
		29	22	13	17	219	333	12	645
		80.00	69.00	32.00	47.00	625.00	988.00	28.00	1869.0
		0.99	1.04	1.13	1.15	0.94	0.97	1.07	0.9

NUMBER OF MISSING OBSERVATIONS = 602

TABLE 6.3

SATISFACTION WITH JOB PREPARATION
REGRESSION ANALYSES FOR MEN
YOUNGER ADULT WORKERS

	B(t)	B(t)	B(t)	B(t)	B(t)
RACE	.18 (1.37)	.16 (1.19)	.16 (1.24)	.19 (1.45)	.12 (.96)
SES	-.00 (.06)	-.01 (.15)	.01 (.14)	.01 (.11)	-.02 (.29)
EXPER	-.01 (.57)	-.01 (.59)	-.00 (.34)	-.01 (.87)	-.00 (.13)
RURAL	.08 (.86)	.10 (1.02)	.11 (1.17)	.07 (.74)	.05 (.55)
TENURE(MONTHS)	.00 (1.24)	.00 (.77)	.00 (.89)	.00 (1.40)	.00 (.92)
MDTC	.21 (1.99)**	.19 (1.83)*	.20 (1.96)**	.22 (2.09)**	.20 (2.00)**
CLPREP	.29 (2.45)**	.29 (2.33)**	.36 (3.10)**	.28 (2.43)**	.33 (2.89)**
RSNS	.29 (1.67)*	.30 (1.67)*	-.09 (.37)	.27 (1.51)	.25 (1.46)
TRADE	.55 (4.79)**	.53 (4.53)**	.19 (.09)	.45 (3.73)**	.43 (3.72)**
MARKET	.67 (1.86)*	.69 (1.90)*	.23 (.57)	.60 (1.66)	.54 (1.53)
OTHER	.29 (1.41)	.29 (1.37)	-.12 (.44)	.23 (1.14)	.14 (.69)
ADVDEG		.11 (.58)			
COLLAYR		-.05 (.43)			
EMPSP		-.02 (.17)			
PVT		-.10 (.80)			
PCCT		.12 (.86)			
GVT		-.50 (2.32)**			
MOS		.14 (1.14)			
APP		.03 (.27)			
MORE			.76 (3.31)**		
SAME			.77 (3.35)**		
LESS			.05 (.22)		
STUDY 1				.39 (2.55)**	
STUDY 2				.35 (2.61)**	
STUDY 3				.13 (.91)	
STUDY 4				-.21 (1.69)*	
TCHAST					.37 (2.62)**
JOBHUNT					.43 (4.68)**
n	635	635	635	635	635
R^2	.05	.06	.10	.09	.10
$\bar{R}^2$	.03	.03	.08	.06	.08
F	2.81	2.14	4.87	3.84	5.39

TABLE 6.4

SATISFACTION WITH JOB PREPARATION
REGRESSION ANALYSES FOR WOMEN
YOUNGER ADULT WORKERS

	B(t)	B(t)	B(t)	B(t)	B(t)
RACE	.26 (2.12)**	.23 (1.92)*	.24 (2.05)**	.23 (2.03)**	.19 (1.58)
SES	-.07 (1.00)	-.05 (.70)	-.06 (.82)	-.07 (.97)	-.06 (.93)
EXPER	-.01 (1.91)*	-.01 (2.05)**	-.01 (1.63)	-.01 (1.33)	-.01 (.97)
RURAL	.04 (.47)	.04 (.44)	.04 (.41)	.04 (.40)	.02 (.17)
TENURE(MONTHS)	.00 (.90)	.00 (.61)	.00 (.94)	.00 (.99)	.00 (.95)
MDTC	.14 (1.38)	.13 (1.28)	.15 (1.44)	.26 (2.50)**	.16 (1.61)
MARRIED	.18 (2.12)**	.17 (2.01)**	.17 (2.08)**	.15 (1.93)*	.19 (2.37)**
CLPREP	.17 (1.27)	.20 (1.49)	.18 (1.37)	.18 (1.43)	.23 (1.79)*
BSNS	.64 (5.45)**	.63 (5.39)**	.47 (1.70)*	.41 (3.53)**	.52 (4.56)**
TRADE+	.54 (2.34)**	.61 (2.59)**	.31 (.91)	.41 (1.87)*	.39 (1.73)*
MARKET+	.95 (3.20)**	.88 (2.97)**	.83 (2.29)**	.85 (2.96)**	.71 (2.45)**
OTHER	.09 (.42)	.05 (.24)	-.07 (.21)	.04 (.22)	-.02 (.10)
ADVDEG		.19 (.91)			
COLL4YR		-.17 (1.34)			
EMPSP		.15 (1.44)			
PVT		-.15 (1.22)			
POCT		-.06 (.45)			
GVT		-.07 (.27)			
MOS		-.30 (1.03)			
APP		-.25 (1.60)			
MORE			.43 (1.53)		
SAME			.09 (.31)		
LESS			-.09 (.31)		
STUDY1				.75 (6.18)**	
STUDY2				.37 (2.81)**	
STUDY3				.21 (1.47)	
STUDY4				-.20 (1.65)*	
TCHAST					.50 (4.19)**
JOBHUNT					.30 (3.43)**
n	605	605	605	605	605
R^2	.09	.11	.12	.19	.15
$\overline{R}^2$	.07	.08	.09	.17	.13
F	4.71	3.53	5.22	8.46	7.29

TABLE 6.5

SATISFACTION WITH VOCATIONAL INSTRUCTION

CLASS OF '72

RACESE	MEAN / COUNT / SUM / STD DEV	CUR VOCATIONAL 1	COLLEGE PREP 2	GENERAL 3	ROW TOTAL
WHITE-MALE	1	2.95	2.65	2.60	2.70
		853	1323	1350	3526
		2519.00	3505.00	3505.00	9529.00
		0.89	0.87	0.89	0.90
WHITE-FEM	2	2.95	2.68	2.57	2.73
		904	999	908	2811
		2665.00	2682.00	2332.00	7679.00
		0.79	0.85	0.82	0.83
MINORITY-MALE	3	2.80	2.81	2.60	2.74
		299	205	317	821
		836.00	577.00	824.00	2237.00
		0.85	0.87	0.78	0.84
MINORITY-FEM	4	2.73	2.80	2.54	2.69
		303	233	275	811
		828.00	653.00	698.00	2179.00
		0.81	0.86	0.76	0.81
COLUMN TOTAL		2.90	2.69	2.58	2.71
		2359	2760	2650	7969
		6848.00	7417.00	7359.00	21624.00
		0.84	0.86	0.84	0.86

TABLE 6.6

PERCENTAGE OF PERSONS WHO WOULD REPEAT THE SAME

HIGH SCHOOL CURRICULUM BY CURRICULUM, RACE AND SEX

YOUNGER ADULT WORKERS

RS / COL: MEAN, COUNT, SUM, STD DEV		VOCATIONAL 1	COLLEGE PREP 3	GENERAL 4	ROW TOTAL
WHITE MALE	1	65.22 253 16500.00 47.72	73.80 187 13800.00 44.09	28.57 105 3000.00 45.39	61.10 545 33300.00 48.80
WHITE FEMALE	2	60.77 311 18900.00 48.90	81.48 135 11000.00 38.99	29.73 74 2200.00 46.02	61.73 520 32100.00 48.65
MINOR MALE	3	57.89 57 3300.00 49.81	66.67 21 1400.00 48.30	17.65 17 300.00 39.30	52.63 95 5000.00 50.20
MINOR FEMALE	4	48.94 47 2300.00 50.53	72.73 22 1600.00 45.58	4.76 21 100.00 21.82	44.44 90 4000.00 49.97
COLUMN TOTAL		61.56 666 41000.00 48.72	76.16 365 27800.00 42.67	25.81 217 5600.00 43.86	59.52 1250 74400.00 49.11

NUMBER OF MISSING OBSERVATIONS = 22

TABLE 6.7

PERCENTAGE OF PERSONS WHO WOULD REPEAT THE SAME HIGH SCHOOL CURRICULUM BY VOCATIONAL PROGRAM AREA, RACE AND SEX

YOUNGER ADULT WORKERS

RS \ V23 (MEAN / COUNT / SUM / STD DEV)	AGRICUL-TURE 1	MKTG/D.E. 2	HEALTH 3	HOME ECON. 4	TRADE OR INDUSTR. 5	BUSINESS OFFICE 6	OTHER 7	ROW TOTAL
1 WHITE MALE	76.00 25 1900.00 43.59	44.44 9 400.00 52.70	100.00 1 100.00 0.0	100.00 1 100.00 0.0	60.00 185 11100.00 48.75	51.28 39 2000.00 50.64	50.00 8 400.00 53.45	65.04 245 16000.00 47.78
2 WHITE FEMALE	50.00 2 100.00 70.71	69.23 13 900.00 48.04	63.64 11 700.00 50.45	72.73 11 800.00 46.71	72.22 18 1300.00 46.09	59.84 249 14900.00 49.12	0.0 3 0.0 0.0	60.91 307 18700.00 48.97
3 MINOR MALE	33.33 3 100.00 57.74	0.0 0 0.0 0.0	0.0 0 0.0 0.0	33.33 3 100.00 57.74	69.23 39 2700.00 46.75	40.00 10 400.00 51.64	0.0 1 0.0 0.0	58.93 56 3300.00 49.64
4 MINOR FEMALE	100.00 1 100.00 0.0	0.0 0 0.0 0.0	100.00 1 100.00 0.0	33.33 3 100.00 57.74	60.00 5 300.00 54.77	44.44 36 1600.00 50.40	0.0 0 0.0 0.0	47.83 46 2200.00 50.50
COLUMN TOTAL	70.97 31 2200.00 46.14	59.09 22 1300.00 50.32	69.23 13 900.00 48.04	61.11 18 1100.00 50.16	68.44 225 15400.00 46.53	56.59 334 18900.00 49.64	33.33 12 400.00 49.24	61.37 655 40200.00 48.73

NUMBER OF MISSING OBSERVATIONS = 227

TABLE 6.8

REPEAT SAME HIGH SCHOOL CURRICULUM
REGRESSION ANALYSES FOR MEN
YOUNGER ADULT WORKERS

	B(t)	B(t)	B(t)	B(t)	B(t)
RACE	-.08 (1.34)	-.08 (1.42)	-.09 (1.61)	-.08 (1.46)	-.08 (1.30)
SES	.04 (1.16)	.01 (.42)	.04 (1.31)	.04 (1.19)	.04 (1.22)
EXPER	.00 (.97)	.00 (.86)	.01 (1.35)	.00 (.57)	.00 (.81)
RURAL	-.05 (1.18)	-.05 (1.28)	-.04 (1.08)	-.05 (1.20)	-.04 (.95)
TENURE(MONTHS)	.00 (1.53)	.00 (.84)	.00 (1.23)	.00 (1.58)	.00 (1.18)
UNION	-.08 (1.89)*				
TRADE	.38 (7.54)**	.38 (7.47)**	.14 (1.43)	.34 (6.30)**	.38 (7.30)**
MDTC	.03 (.69)	.02 (.38)	.03 (.74)	.04 (.93)	.04 (.80)
CLPPEP	.40 (7.73)**	.35 (6.44)**	.44 (8.40)**	.41 (7.92,**	.41 (7.82)**
PSNS	.18 (2.37)**	.19 (2.44)**	-.00 (.04)	.17 (2.22)**	.20 (2.60)**
MARKET+	.11 (.67)	.13 (.84)	-.13 (.72)	.13 (.78)	.12 (.77)
OTHER	.44 (4.83)**	.44 (4.86)**	.22 (1.80)*	.42 (4.63)**	.44 (4.86)**
ADVDEG		.12 (1.53)			
COLL4YP		.07 (1.29)			
EMPSP		.12 (2.55)**			
PVT		.05 (.88)			
PCCT		-.10 (1.71)*			
CVT		-.28 (2.93)**			
MOS		-.08 (1.49)			
APP		.05 (.91)			
MORE			.39 (3.77)**		
SAME			.27 (2.59)**		
LESS			.15 (1.40)		
STUDY1				.21 (2.98)**	
STUDY2				.05 (.85)	
STUDY3				.06 (1.01)	
STUDY4				-.04 (.75)	
TCHAST					.07 (1.14)
JOBHUNT					-.07 (1.74)*
n	635	635	635	635	635
R^2	.14	.17	.16	.15	.14
$\bar{R}^2$	.12	.15	.14	.13	.12
F	8.28	6.66	8.45	7.41	7.64

TABLE 6.9

REPEAT SAME HIGH SCHOOL CURRICULUM
REGRESSION ANALYSES FOR WOMEN
YOUNGER ADULT WORKERS

	B(t)	B(t)	B(t)	B(t)	B(t)
RACE	-.15 (2.67)**	-.15 (2.62)**	-.15 (2.78)**	-.15 (2.69)**	-.16 (2.97)**
SES	.01 (.16)	.01 (.23)	-.01 (.30)	.01 (.19)	.01 (.19)
EXPER	-.01 (2.39)**	-.01 (2.42)**	-.01 (.2.21)**	-.01 (2.07)**	-.01 (1.90)*
RURAL	.02 (.54)	.03 (.63)	.01 (.35)	.02 (.46)	.02 (.40)
TENURE(MONTHS)	.00 (1.40)	.06 (1.10)	.00 (1.43)	.00 (1.29)	.00 (1.38)
UNION	-.01 (.11)				
TRADE	.44 (1.22)**	.45 (4.21)**	.49 (3.13)**	.44 (4.20)**	.41 (3.93)**
MDTC	.15 (3.20)**	.15 (3.18)**	.15 (3.23)**	.15 (3.03)**	.15 (3.24)**
CLPREP	.52 (8.80)**	.51 (8.18)**	.52 (8.63)**	.51 (8.76)**	.54 (9.05)**
BSNS	.33 (6.15)**	.33 (6.19)**	.39 (3.13)**	.30 (5.47)**	.31 (5.69)**
MARKET	.40 (2.95)**	.38 (2.83)**	.47 (2.84)**	.45 (3.34)**	.35 (2.58)**
OTHER	.38 (4.01)**	.37 (3.88)**	.46 (3.11)**	.39 (4.12)**	.37 (3.83)**
ADVDEG		.15 (1.51)			
COLLAYR		-.03 (.47)			
EMPSP		.08 (1.71)*			
PVT		-.01 (.12)			
PCCT		.02 (.37)			
GVT		-.09 (.73)			
MOS		.10 (.76)			
APP		-.04 (.51)			
MORE			.01 (.08)		
SAME			-.10 (.69)		
LESS			-.21 (1.63)		
STUDY1				.12 (2.11)**	
STUDY2				-.10 (1.70)*	
STUDY3				-.05 (.75)	
STUDY4				-.10 (1.76)*	
TCHAST					.06 (.94)
JOBHUNT					.08 (2.06)**
n	605	605	605	605	605
R^2	.17	.18	.19	.20	.18
$\bar{R}^2$	.15	.15	.17	.18	.16
F	9.97	6.68	9.58	9.58	9.76

TABLE 6.10

AVERAGE NUMBER OF YEARS OF POSTSECONDARY EDUCATION

BY CURRICULUM, RACE AND SEX

YOUNGER ADULT WORKERS

RS	CUR	VOCATIONAL 1	COLLEGE PREP 3	GENERAL 4	ROW TOTAL
WHITE MALE	1	1.30	3.46	2.01	2.18
		247	182	101	530
		320.58	629.06	203.33	1152.92
		1.82	2.33	2.08	2.27
WHITE FEMALE	2	0.90	3.29	1.67	1.63
		303	132	71	506
		272.92	434.06	118.67	825.58
		1.31	1.99	2.08	1.92
MINOR MALE	3	1.73	2.02	1.32	1.72
		57	20	17	94
		98.75	40.42	22.42	161.56
		2.18	1.94	1.37	2.00
MIN FEM	4	1.14	2.55	0.94	1.43
		46	21	21	88
		52.25	53.50	19.67	125.42
		1.37	2.07	0.97	1.61
COLUMN TOTAL		1.14	3.26	1.73	1.86
		653	355	210	1218
		744.50	1156.92	364.08	2265.50
		1.63	2.19	1.97	2.08

NUMBER OF MISSING OBSERVATIONS = 50

TABLE 6.11

AVERAGE NUMBER OF YEARS OF POSTSECONDARY EDUCATION

BY VOCATIONAL PROGRAM, RACE AND SEX

YOUNGER ADULT WORKERS

V23

RS	MEAN / COUNT / SUM / STD DEV	AGRICULTURE 1	MKTG,D.E 2	HEALTH 3	HOME ECONOMICS 4	TRADE OR INDUSTR 5	BUSINESS OFFICE 6	OTHER 7	ROW TOTAL
1 WHITE MALE		1.23	1.61	0.50	0.17	1.13	1.92	2.38	1.32
		24	9	1	1	159	38	8	240
		29.50	14.50	0.50	0.17	179.17	73.08	19.00	315.92
		1.68	3.14	0.0	0.0	1.66	2.07	2.13	1.83
2 WHITE FEMALE		0.33	0.51	1.80	0.82	1.16	0.86	1.00	0.90
		1	13	10	11	18	243	3	299
		0.33	6.67	18.00	9.00	20.83	209.83	3.00	267.67
		0.0	0.60	1.93	1.55	1.36	1.28	1.00	1.30
3 MINOR MALE		2.33	0.0	0.0	1.81	1.09	3.80	2.00	1.69
		3	0	0	3	39	10	1	56
		7.00	0.0	0.0	5.42	42.33	38.00	2.00	94.75
		2.08	0.0	0.0	1.91	1.62	3.07	0.0	2.17
4 MIN FEM		2.00	0.0	0.0	0.89	1.12	1.17	0.0	1.14
		1	0	1	3	5	35	0	45
		2.00	0.0	0.0	2.67	5.58	41.00	0.0	51.25
		0.0	0.0	0.0	1.02	1.12	1.49	0.0	1.39
COLUMN TOTAL		1.34	0.96	1.54	0.96	1.12	1.11	2.00	1.14
		29	22	12	18	221	326	12	640
		38.83	21.17	18.50	17.25	247.92	361.92	24.00	729.58
		1.67	2.07	1.85	1.47	1.61	1.60	1.85	1.63

NUMBER OF MISSING OBSERVATIONS = 628

TABLE 6.12

PUBLIC COMMUNITY COLLEGE OR TECHNICAL INSTITUTE BY CURRICULUM
YOUNGER ADULT WORKERS

		Vocational	College Prep	General
Participation	n	143	54	40
	%	21	15	18
Completion[a]	n	89	29	27
	%	63	56	69
Certificate[b]	n	80	25	26
	%	90	86	96
Use of Training[c]	n	85	26	29
	%	66	55	76
Length of Training	$\bar{x}$	1.05	1.22	.97
	s.d.	1.22	1.24	.83

[a] Percentages are based on those who participated in the program.

[b] Percentages are based on those who completed the program.

[c] Percentages are based on those who participated in the program.

TABLE 6.13

PUBLIC COMMUNITY COLLEGE OR TECHNICAL
INSTITUTE BY VOCATIONAL PROGRAMS
YOUNGER ADULT WORKERS

		AG	MARKET	HEALTH	HE	TRADE	BSNS
Participation	n	2	6	1	3	51	72
	%	6	26	8	17	23	21
Completion	n	1	5	0	2	35	41
	%	50	83	-	67	69	58
Certification	n	1	5	0	2	30	37
	%	100	100	-	100	86	90
Length of Training	X	.50	1.83	2.00	2.33	1.00	1.07
	s.d.	.71	2.14	.00	1.53	1.06	1.25

TABLE 6.14

COMPLETION OF, PARTICIPATION IN, AND USE OF SKILLS LEARNED IN A PUBLIC COMMUNITY COLLEGE OR TECHNICAL INSTITUTE FOR MEN YOUNGER ADULT WORKERS

	Completion B (t)	Participation B (t)	Used Skills B (t)
RACE	-.01 (.28)	-.04 (.85)	-.00 (.08)
SES	-.02 (.92)	-.03 (1.37)	-.01 (.49)
RURAL	-.03 (.92)	-.08 (2.39)**	-.04 (1.49)
CLPREP	-.05 (1.53)	-.05 (1.22)	-.07 (2.07)**
BSNS	-.02 (.39)	-.04 (.68)	-.04 (.70)
MARKET+	.32 (2.92)**	.25 (1.85)*	.30 (2.81)**
TRADE	.02 (.59)	.02 (.58)	-.02 (.57)
OTHER	-.10 (1.53)	-.09 (1.23)	-.04 (.70)
PHYRES	.06 (1.05)	.06 (.86)	.07 (1.10)
n	635	635	635
R^2	.03	.03	.03
$\bar{R}^2$	.02	.01	.01
F	2.35	2.04	2.07

TABLE 6.15

COMPLETION OF, PARTICIPATION IN, AND USE OF SKILLS LEARNED IN A PUBLIC COMMUNITY COLLEGE OR TECHNICAL INSTITUTE FOR WOMEN YOUNGER ADULT WORKERS

	Completion B (t)	Participation B (t)	Used Skills B (t)
MARRIED	-.02 (.75)	-.03 (.76)	.01 (.40)
RACE	-.01 (.21)	.04 (.91)	.01 (.27)
SES	-.01 (.47)	.03 (1.03)	.01 (.28)
RURAL	.03 (1.03)	.05 (1.36)	.01 (.44)
CLPREP	-.04 (.97)	-.05 (1.00)	-.06 (1.36)
BSNS	-.01 (.28)	.03 (.71)	.01 (.16)
MARKET+	-.07 (.76)	-.05 (.40)	-.05 (.54)
TRADE+	.10 (1.26)	.07 (.81)	.06 (.78)
OTHER	-.06 (.95)	-.09 (1.05)	-.09 (1.37)
PHYRES	-.13 (1.91)*	-.15 (1.86)*	-.12 (1.78)*
n	605	605	605
R^2	.02	.02	.02
$\bar{R}^2$	.00	.01	.00
F	1.03	1.38	1.06

TABLE 6.16

COMPLETION OF AND PARTICIPATION IN A VOCATIONAL-TECHNICAL PROGRAM FOR CLASS OF '72

		Vocational	College Prep	General
Participation	n	1,294	2,051	1,757
	%	39	33	36
Completion	n	498	1,188	699
	%	38	58	40

		AG	MARKET	HEALTH	HE	TRADE	BSNS
Participation	n	87	123	58	34	428	564
	%	34	36	45	24	45	38
Completion	n	42	39	20	12	211	174
	%	48	32	34	35	49	31

TABLE 6.17

COMPLETION OF A VOCATIONAL-TECHNICAL PROGRAM CLASS OF '72

	Men B (t)	Women B (t)
RACE	.00 (.22)	.00 (.10)
RURAL	-.02 (2.63)**	-.02 (2.35)**
SES	-.00 (1.12)	-.00 (.00)
CLPREP	.04 (4.34)**	.06 (5.86)**
BSNS	-.01 (.21)	-.02 (1.91)*
MARKET	-.04 (1.35)	-.03 (.78)
TRADE	.07 (4.70)**	.08 (1.95)*
OTHER	.01 (.24)	-.02 (.73)
n	7,732	6,840
R^2	.01	.01
R^2	.01	.01
F	6.54	9.17

TABLE 6.18

COMPLETION OF A BUSINESS OR TECHNICAL INSTITUTE PROGRAM
NLS-LME

	Boys	Girls
	B (t)	B (t)
HSC16+	-.01 (.27)	-.01 (.42)
UNEMP	.00 (.31)	-.00 (.42)
AGE	.05 (.99)	.02 (.46)
RACE	-.03 (1.43)	.02 (1.18)
BSNS	-.03 (.79)	.02 (.78)
AGESQ	.00 (.75)	-.00 (.39)
SES	.00 (1.00)	-.00 (.29)
VOCATIONAL	-.03 (1.23)	-.04 (.96)
CLPREP	-.03 (1.56)	.00 (.23)
RURAL	-.04 (1.78)*	-.03 (1.46)
CITYCEN	-.00 (.08)	-.02 (1.32)
SOUTH	-.01 (.71)	
HSC16	-.06 (3.06)**	-.04 (2.01)**
MARRIED		-.02 (.95)
WIDOWED		-.10 (.81)
DIV/SEP		-.01 (.56)
MDHOUSE		-.01 (.38)
HOUSE		-.01 (1.71)*
n	1,416	1,236
R^2	.04	.02
$\bar{R}^2$	.03	.00
F	4.09	1.14

TABLE 6.19

PROPRIETARY VOCATIONAL SCHOOL BY CURRICULUM
YOUNGER ADULT WORKERS

		Vocational	College Prep	General
Participation	n	132	64	41
	%	20	17	19
Completion	n	94	48	28
	%	72	76	70
Certificate	n	87	44	25
	%	93	94	89
Use of Training	n	93	44	25
	%	75	73	68
Length of Training	X	.95	1.26	.68
	s.d.	1.16	1.45	.79

TABLE 6.20

PROPRIETARY VOCATIONAL SCHOOL
BY VOCATIONAL PROGRAM
YOUNGER ADULT WORKERS

		AG	MAPKET	HEALTH	HE	TRADE	RSNS
Participation	n	2	6	3	2	50	65
	%	6	19	23	11	22	19
Completion	n	1	5	3	1	37	44
	%	50	83	100	50	76	68
Certification	n	1	4	3	1	34	41
	%	100	80	100	100	92	93
Length of Training	$\bar{x}$	2.00	.50	1.00	-	1.20	.80
	s.d.	2.83	.55	1.73	-	1.25	1.07

TABLE 6.21

COMPLETION OF, PARTICIPATION IN, AND USE OF SKILLS LEARNED IN A PROPRIETARY VOCATIONAL SCHOOL FOR MEN YOUNGER ADULT WORKERS

	Completion B (t)	Participation B (t)	Used Skills B (t)
RACE	.00 (.00)	.00 (.03)	.01 (.24)
SES	.03 (1.42)	.01 (.23)	.01 (.56)
RURAL	-.01 (.19)	-.03 (.84)	-.04 (1.39)
CLPREP	-.02 (.44)	.00 (.06)	-.00 (.09)
BSNS	.01 (.13)	.10 (1.42)	.04 (.60)
MARKET+	.18 (1.49)	.14 (1.00)	.21 (1.72)*
TRADE	-.01 (.22)	.01 (.32)	.01 (.21)
OTHER	-.12 (1.69)*	-.09 (1.19)	-.03 (.40)
PHYRES	.07 (.99)	.04 (.50)	.04 (.59)
n	635	635	635
R^2	.01	.01	.01
$\overline{R}^2$	.00	-.00	-.00
F	1.05	.74	.73

TABLE 6.22

COMPLETION OF, PARTICIPATION IN, AND USE OF SKILLS LEARNED IN A PROPRIETARY VOCATIONAL SCHOOL FOR WOMEN YOUNGER ADULT WORKERS

	Completion B (t)	Participation B (t)	Used Skills B (t)
MARRIED	.02 (.83)	.05 (1.61)	.04 (1.33)
RACE	-.01 (.33)	-.00 (.05)	-.00 (.09)
SES	.02 (.97)	.05 (1.79)*	.03 (1.44)
RURAL	-.02 (.53)	-.03 (.77)	-.04 (1.44)
CLPREP	-.01 (.12)	-.07 (1.36)	-.01 (.14)
BSNS	.02 (.48)	-.01 (.22)	.03 (.92)
MARKET+	.06 (.60)	.06 (.58)	-.00 (.04)
TRADE+	.25 (3.25)**	.17 (1.93)*	.21 (2.86)**
OTHER	.04 (.56)	-.04 (.52)	.02 (.23)
PHYRES	-.02 (.25)	-.06 (.75)	-.05 (.77)
n	605	605	605
R^2	.02	.02	.03
$\overline{R}^2$	.01	.01	.01
F	1.44	1.43	1.63

TABLE 6.23

FOUR YEAR COLLEGE OR UNIVERSITY PROGRAM
BY CURRICULUM
YOUNGER ADULT WORKERS

		Vocational	College Prep	General
Participation	n	113	253	63
	%	17	69	29
Completion	n	49	190	36
	%	44	75	58
Certificate	n	49	188	35
	%	100	99	97
Use of Training	n	62	159	37
	%	61	67	63
Length of Training	$\bar{X}$	2.54	3.29	2.94
	s.d.	1.58	1.48	1.47

TABLE 6.24

FOUR YEAR COLLEGE OR UNIVERSITY
PROGRAM BY VOCATIONAL PROGRAM
YOUNGER ADULT WORKERS

		AG	MARKET	HEALTH	HE	TRADE	BSNS
Participation	n	7	5	3	1	28	65
	%	22	22	23	6	12	19
Completion	n	3	3	1	0	12	28
	%	43	60	33	-	44	44
Certification	n	3	3	1	0	12	28
	%	100	100	100	-	100	100
Length of Training	$\bar{x}$	3.14	2.60	2.60	1.00	2.68	2.38
	s.d.	1.57	1.52	1.52	.00	1.70	1.57

TABLE 6.25

COMPLETION OF, PARTICIPATION IN, AND USE OF SKILLS LEARNED IN A FOUR-YEAR COLLEGE OR UNIVERSITY FOR MEN YOUNGER ADULT WORKERS

	Completion B (t)	Participation B (t)	Used Skills B (t)
RACE	-.01 (.30)	.05 (.97)	-.01 (.20)
SES	.06 (2.58)**	.13 (4.84)**	.07 (2.62)**
RURAL	-.02 (.59)	-.06 (1.47)	-.03 (.96)
CLPREP	.33 (7.93)**	.31 (6.55)**	.22 (4.91)**
RSNS	-.04 (.60)	-.03 (.38)	-.01 (.19)
MARKET+	.06 (.48)	.02 (.11)	.14 (1.62)
TRADE	-.11 (2.65)**	-.20 (4.34)**	-.13 (2.92)**
OTHER	-.05 (.66)	-.04 (.52)	-.05 (66)
PHYPES	.01 (16)	.13 (1.59)	.04 (.57)
n	635	635	635
R^2	.23	.25	.14
$\bar{R}^2$	.22	.24	.13
F	20.76	23.49	11.61

TABLE 6.26

COMPLETION OF, PARTICIPATION IN, AND USE OF SKILLS LEARNED IN A FOUR-YEAR COLLEGE OR UNIVERSITY FOR WOMEN YOUNGER ADULT WORKERS

	Completion B (t)	Participation B (t)	Used Skills B (t)
MARRIED	-.02 (.72)	-.00 (.03)	.02 (.71)
RACE	-.06 (1.42)	-.07 (1.46)	-.06 (1.45)
SES	.12 (4.73)**	.15 (5.40)**	.09 (3.67)**
RURAL	-.01 (.22)	-.08 (2.24)**	-.00 (.13)
CLPREP	.31 (6.76)**	.42 (8.16)**	.27 (5.73)**
RSNS	-.10 (2.57)**	-.08 (1.73)*	-.06 (1.41)
MARKET	-.11 (1.04)	-.09 (.81)	-.15 (1.39)
TRADE	-.06 (.76)	-.10 (1.08)	-.07 (.80)
OTHER	-.13 (1.80)*	-.13 (1.58)	-.07 (.97)
PHYPES	-.01 (.07)	.01 (.11)	-.03 (.38)
n	605	605	605
R^2	.26	.31	.18
$\bar{R}^2$	.25	.30	.17
F	21.13	26.60	13.07

TABLE 6.27

COMPLETION OF AND PARTICIPATION IN A
FOUR YEAR COLLEGE PROGRAM
CLASS OF '72

		Vocational	College Prep	General
Participation	n	1,215	5,321	2,598
	%	37	87	53
Completion	n	147	3,066	778
	%	12	58	30

		AG	MARKET	HEALTH	HF	TRADE	BSNS
Participation	n	75	146	67	35	304	588
	%	30	42	52	25	32	40
Completion	n	13	24	18	5	30	57
	%	17	16	27	14	10	10

TABLE 6.28

COMPLETION OF FOUR-YEAR COLLEGE PROGRAM
CLASS OF '72

	Men B (t)	Women B (t)
RACE	-.01 (1.52)	.00 (.25)
RURAL	-.07 (7.66)**	-.06 (5.88)**
SES	-.00 (.08)	.00 (1.59)
CLPREP	.31 (29.55)**	.32 (28.21)**
BSNS	-.12 (3.96)**	-.16 (11.41)**
MARKET	-.12 (3.96)**	-.11 (2.76)**
TRADE	-.14 (8.55)**	-.15 (3.17)**
OTHER	-.09 (3.09)**	-.12 (4.54)**
n	7,732	6,840
R^2	.17	.19
$\bar{R}^2$	.17	.19
F	197.50	206.39

TABLE 6.29

ADVANCED DEGREE PROGRAM BY CURRICULUM
YOUNGER ADULT WORKERS

		Vocational	College Prep	General
Participation	n	14	92	10
	%	2	25	5
Completion	n	6	61	7
	%	46	66	70
Certificate	n	6	61	7
	%	100	100	100
Use of Training	n	7	64	7
	%	70	74	78
Length of Training	$\bar{X}$	1.07	2.00	2.30
	s.d.	1.33	1.73	1.64

TABLE 6.30

ADVANCED DEGREE PROGRAM BY VOCATIONAL PROGRAM
YOUNGER ADULT WORKERS

		AG	MARKET	HEALTH	HE	TRADE	BSNS
Participation	n	1	2	1	0	3	6
	%	3	9	8	-	1	2
Completion	n	0	0	1	0	1	3
	%	-	-	100	-	50	50
Certificate	n	0	0	1	0	1	3
	%	-	-	100	-	100	100
Length of Training	$\bar{X}$	-	-	1.00	-	1.83	2.00
	s.d.	-	-	-	-	1.60	-

Table 6.31

COMPLETION OF, PARTICIPATION IN, AND USE OF SKILLS LEARNED FROM AN ADVANCED DEGREE PROGRAM FOR MEN YOUNGER ADULT WORKERS

	Completion	Participation	Used Skills
	B (t)	B (t)	B (t)
RACE	.00 (.14)	.01 (.24)	.02 (.69)
SES	.04 (2.23)**	.04 (2.25)**	.04 (2.50)**
RURAL	-.00 (.08)	-.00 (.09)	-.00 (.00)
CLPREP	.12 (4.39)**	.18 (5.58)**	.10 (3.79)**
BSNS	.02 (.48)	.00 (.08)	.01 (.26)
MARKET+	-.04 (.49)	.05 (.54)	-.05 (.57)
TRADE	-.03 (1.21)	-.04 (1.17)	-.04 (1.53)
OTHER	-.03 (.68)	-.01 (.26)	-.04 (.84)
PHYRES	-.03 (.57)	-.06 (1.01)	-.02 (.54)
n	635	635	635
R^2	.09	.12	.08
$\overline{R}^2$	.07	.10	.07
F	6.62	9.24	6.00

Table 6.32

COMPLETION OF, PARTICIPATION IN, AND USE OF SKILLS LEARNED FROM AN ADVANCED DEGREE PROGRAM FOR WOMEN YOUNGER ADULT WORKERS

	Completion	Participation	Used Skills
	B (t)	B (t)	B (t)
MARRIED	.00 (.07)	-.01 (.52)	-.00 (.11)
RACE	-.00 (.18)	.00 (.10)	-.01 (.51)
SES	.03 (2.14)**	.04 (2.08)**	.03 (1.74)*
RURAL	.00 (.00)	-.00 (.07)	-.00 (.04)
CLPREP	.12 (4.51)**	.20 (6.21)**	.16 (5.75)**
PSNS	-.03 (1.37)	-.03 (1.06)	-.02 (.78)
MARKET+	-.03 (.54)	.03 (.43)	-.03 (.40)
TRADE	-.03 (.65)	-.04 (.68)	-.02 (.39)
OTHER	.01 (.14)	-.00 (.00)	.02 (.36)
PHYRES	-.05 (1.29)	-.09 (1.68)*	-.06 (1.42)
n	605	605	605
R^2	.11	.16	.13
$\overline{R}^2$	.10	.15	.12
F	7.36	11.26	9.07

TABLE 6.33

COMPLETION OF AN ADVANCED DEGREE PROGRAM
CLASS OF '72

	Men B (t)	Women B (t)
RACE	-.00 (1.50)	-.00 (1.42)
RURAL	-.02 (3.85)**	-.01 (2.95)**
SES	.00 (.26)	.00 (.76)
CLPREP	.06 (12.91)**	.05 (9.58)**
BSNS	-.01 (.80)	-.02 (3.01)**
MARKET	-.02 (1.15)	-.02 (1.18)
TRADE	-.01 (1.88)*	-.01 (.39)
OTHER	-.01 (.60)	-.02 (1.62)
n	7,732	6,840
R^2	.03	.03
$\bar{R}^2$	.03	.03
F	33.49	23.24

TABLE 6.34

APPRENTICESHIP TRAINING BY CURRICULUM
YOUNGER ADULT WORKERS

		Vocational	College Prep	General
Participation	n	109	65	18
	%	16	18	8
Completion	n	78	54	14
	%	72	83	78
Certificate	n	51	30	10
	%	65	57	71
Use of Training	n	85	50	13
	%	83	77	60
Length of Training	$\bar{X}$	.97	.82	1.06
	s.d.	1.46	1.39	1.47

TABLE 6.35

APPRENTICESHIP TRAINING BY VOCATIONAL PROGRAM
YOUNGER ADULT WORKERS

		AG	MARKET	HEALTH	HE	TRADE	BSNS
Participation	n	8	2	2	3	62	29
	%	25	9	15	17	28	9
Completion	n	5	2	2	1	41	24
	%	63	100	100	33	68	100
Certificate	n	3	2	2	1	28	12
	%	60	100	100	100	68	50
Length of Training	$\bar{X}$	1.29	.50	-	.33	1.13	.81
	s.d.	1.70	.71	-	.58	1.61	1.18

TABLE 6.36

COMPLETION OF, PARTICIPATION IN, AND USE OF SKILLS LEARNED IN APPRENTICESHIP TRAINING FOR MEN YOUNGER ADULT WORKERS

	Completion B (t)	Participation B (t)	Used Skills B (t)
RACE	-.01 (.30)	-.07 (1.31)	-.04 (.87)
SES	.01 (.40)	.01 (.30)	-.01 (.27)
RURAL	-.04 (1.23)	-.06 (1.72)*	-.07 (2.22)**
CLPREP	.05 (1.20)	.07 (1.63)	.06 (1.56)
PSNS	.09 (1.51)	.14 (1.98)**	.10 (1.67)*
MARKET+	.13 (1.07)	.10 (.75)	.14 (1.10)
TRADE	.09 (2.23)**	.17 (3.87)**	.13 (3.10)**
OTHER	.10 (1.41)	.15 (1.83)*	.18 (2.41)**
PHYPES	.16 (2.33)**	.16 (2.04)**	.18 (2.55)**
n	635	635	635
R^2	.02	.04	.04
$\bar{R}^2$	.00	.03	.02
F	1.54	2.81	2.67

TABLE 6.37

COMPLETION OF, PARTICIPATION IN, AND USE OF SKILLS LEARNED IN APPRENTICESHIP TRAINING FOR WOMEN YOUNGER ADULT WORKERS

	Completion B (t)	Participation B (t)	Used Skills B (t)
MARRIED	-.03 (1.16)	-.02 (1.06)	-.01 (.53)
RACE	-.05 (1.54)	-.04 (1.32)	-.05 (1.60)
SES	.01 (.71)	.02 (.84)	.00 (.07)
RURAL	-.01 (.51)	.00 (.04)	.01 (.51)
CLPREP	.09 (2.72)**	.08 (2.30)**	.07 (2.19)**
PSNS	.00 (.05)	-.00 (.00)	.01 (.30)
MARKET+	-.06 (.75)	-.07 (.80)	-.04 (.60)
TRADE+	.13 (2.24)**	.12 (1.92)*	.06 (1.06)
OTHER	.03 (.59)	.09 (1.56)	.11 (2.17)**
PHYPES	-.05 (.87)	-.01 (.24)	-.03 (.59)
n	605	605	605
R^2	.04	.03	.03
$\bar{R}^2$	.03	.02	.01
F	2.61	2.11	1.59

TABLE 6.38

COMPLETION OF AND PARTICIPATION IN
AN APPRENTICESHIP TRAINING
CLASS OF '72

		Vocational	College Prep	General
Participation	n	69	95	83
	%	2	2	2
Completion	n	42	54	45
	%	61	57	54

		AG	MARKET	HEALTH	HE	TRADE	BSNS
Participation	n	6	12	1	0	42	8
	%	2	4	1	-	5	1
Completion	n	4	9	1	0	21	7
	%	67	75	100	-	50	88

TABLE 6.39

COMPLETION OF APPRENTICESHIP TRAINING
CLASS OF '72

	Men B (t)	Women B (t)
RACE	-.00 (.48)	.00 (3.00)**
RURAL	-.00 (.32)	-.00 (1.21)
SES	-.00 (1.29)	.00 (.90)
CLPREP	.00 (.03)	.00 (.56)
BSNS	.00 (.55)	.00 (.26)
MARKET	.03 (2.86)**	-.00 (.49)
TRADE	.01 (2.15)**	.01 (1.78)*
OTHER	.00 (.34)	.00 (.48)
n	7,732	6,840
R^2	.00	.00
R^2	.00	.00
F	1.87	1.91

TABLE 6.40

EMPLOYER-SPONSORED TRAINING BY CURRICULUM
YOUNGER ADULT WORKERS

		Vocational	College Prep	General
Participation	n	144	90	35
	%	21	24	16
Completion	n	128	81	32
	%	90	90	91
Certificate	n	99	63	25
	%	78	78	78
Use of Training	n	118	76	30
	%	89	85	88
Length of Training	$\bar{X}$	.43	.22	.17
	s.d.	1.11	.79	.62

TABLE 6.41

EMPLOYER-SPONSORED TRAINING BY VOCATIONAL PROGRAM
YOUNGER ADULT WORKERS

		AG	MARKET	HEALTH	HE	TRADE	BSNS
Participation	n	4	8	3	3	59	64
	%	13	35	23	17	26	19
Completion	n	4	8	3	3	51	56
	%	100	100	100	100	88	89
Certificate	n	2	5	3	2	42	43
	%	50	63	100	67	84	77
Length of Training	$\bar{X}$	2.25	.38	-	.33	.49	.28
	s.d.	2.87	1.06	-	.58	1.26	.70

TABLE 6.42

COMPLETION OF, PARTICIPATION IN, AND USE OF SKILLS LEARNED IN EMPLOYER-SPONSORED TRAINING FOR MEN YOUNGER ADULT WORKERS

	Completion	Participation	Used Skills
	B (t)	B (t)	B (t)
RACE	.02 (.38)	-.00 (.08)	.00 (.00)
SES	.03 (1.19)	.03 (1.02)	.04 (1.59)
RURAL	-.00 (.03)	-.02 (.50)	.00 (.08)
CLPREP	.07 (1.45)	.07 (1.38)	.06 (1.27)
BSNS	.01 (.13)	.03 (.45)	.01 (.12)
MARKET+	.29 (2.09)**	.26 (1.82)*	.28 (2.08)**
TRADE	.08 (1.72)*	.10 (2.06)**	.07 (1.53)
OTHER	-.02 (.30)	.04 (.49)	-.05 (.68)
PHYRES	-.03 (.39)	.06 (.77)	-.06 (.80)
n	635	635	635
R^2	.02	.02	.02
$\overline{R}^2$	.00	.00	.01
F	1.15	1.26	1.38

TABLE 6.43

COMPLETION OF, PARTICIPATION IN, AND USE OF SKILLS LEARNED IN EMPLOYER-SPONSORED TRAINING FOR WOMEN YOUNGER ADULT WORKERS

	Completion	Participation	Used Skills
	B (t)	B (t)	B (t)
MARRIED	.04 (1.29)	.03 (.99)	.04 (1.33)
RACE	.03 (.66)	.01 (.31)	-.03 (.63)
SES	-.02 (.70)	-.02 (.85)	-.01 (.46)
RURAL	-.04 (1.13)	-.04 (1.11)	-.07 (1.88)*
CLPREP	.09 (1.80)*	.10 (2.01)**	.07 (1.56)
BSNS	.03 (.68)	.05 (1.10)	.03 (.78)
MARKET+	.19 (1.64)*	.18 (1.54)	.12 (1.10)
TRADE+	.09 (.96)	.09 (.95)	.06 (.67)
OTHER	.07 (.87)	.07 (.85)	.02 (.25)
PHYRES	-.03 (.34)	.04 (.46)	.00 (.00)
n	605	605	605
R^2	.01	.01	.01
$\overline{R}^2$	-.00	-.00	-.00
F	.87	.78	.87

TABLE 6.44

COMPLETION OF AND PARTICIPATION IN
EMPLOYER-SPONSORED TRAINING
CLASS OF '72

		Vocational	College Prep	General
Participation	n	332	850	509
	%	10	14	11
Completion	n	276	677	397
	%	83	80	78

		AG	MARKET	HEALTH	HE	TRADE	BSNS
Participation	n	22	33	11	9	93	164
	%	9	10	9	7	10	11
Completion	n	19	29	10	7	70	141
	%	86	88	91	78	75	86

TABLE 6.45

COMPLETION OF EMPLOYER-SPONSORED TRAINING
CLASS OF '72

	Men B (t)	Women B (t)
RACE	-.00 (.69)	-.01 (1.43)
RURAL	-.01 (.87)	-.03 (3.44)**
SES	-.00 (.45)	.00 (.08)
CLPREP	.01 (1.66)*	.03 (4.13)**
BSNS	-.02 (.85)	.02 (1.51)
MARKET	-.01 (.62)	.02 (.62)
TRADE	-.01 (1.06)	-.03 (.96)
OTHER	-.02 (.87)	-.01 (.47)
n	7,732	6,840
R^2	.00	.01
R^2	.00	.00
F	1.31	4.87

TABLE 6.46

COMPLETION OF COMPANY TRAINING SCHOOL
NLS-LME

	Boys B (t)	Girls B (t)
HSC16+	-.12 (3.31)**	-.06 (1.62)
UNEMP	.01 (1.40)	-.01 (1.73)*
AGE	.07 (1.06)	.10 (1.48)
RACE	-.06 (1.77)*	.02 (.85)
BSNS	-.00 (.07)	.04 (1.35)
AGESQ	-.00 (.76)	-.00 (1.34)
SES	.00 (1.98)**	.00 (.18)
VOCATIONAL	.02 (.61)	-.01 (.09)
CLPREP	.00 (.17)	.06 (2.31)**
RURAL	-.12 (3.94)**	-.03 (.86)
CENCITY	-.05 (2.20)**	-.03 (.86)
SOUTH	.06 (2.20)**	
HSC16	.00 (.15)	-.10 (3.60)**
MARRIED		.02 (.67)
WIDOWED		-.18 (1.07)
DIV/SEP		.05 (1.61)
MDHOUSF		-.13 (2.71)**
HOUSE		-.02 (2.79)**
n	1,416	1,236
R^2	.06	.04
$\bar{R}^2$	.05	.03
F	6.45	3.64

TABLE 6.47

GOVERNMENT-SPONSORED TRAINING BY CURRICULUM FOR YOUNGER ADULT WORKERS

		Vocational	College Prep	General
Participation	n	33	6	16
	%	5	2	7
Completion	n	24	4	12
	%	75	80	80
Certificate	n	9	1	9
	%	39	25	75
Use of Training	n	20	3	9
	%	71	75	64
Length of Training	$\bar{X}$	.34	.33	.69
	s.d.	.70	.52	.87

TABLE 6.48

GOVERNMENT-SPONSORED TRAINING BY VOCATIONAL PROGRAM YOUNGER ADULT WORKERS

		AG	MARKET	HEALTH	HE	TRADE	PSNS
Participation	n	0	1	0	3	13	15
	%	-	4	-	17	6	4
Completion	n	0	1	0	2	11	10
	%	-	100	-	67	92	67
Certificate	n	0	1	0	2	3	3
	%	-	100	-	100	30	30
Length of Training	$\bar{X}$	-	1.00	-	.33	.31	.36
	s.d.	-	.00	-	.58	.63	.84

TABLE 6.49

COMPLETION OF, PARTICIPATION IN, AND USE OF SKILLS LEARNED IN GOVERNMENT-SPONSORED TRAINING FOR MEN YOUNGER ADULT WORKERS

	Completion	Participation	Used Skills
	B (t)	B (t)	B (t)
RACE	-.01 (.43)	.01 (.30)	-.01 (.47)
SES	-.02 (1.27)	-.02 (1.52)	-.01 (1.30)
RURAL	-.01 (.69)	-.02 (1.29)	.00 (.00)
CLPREP	-.04 (1.80)*	-.05 (1.95)*	-.01 (.41)
BSNS	-.01 (.39)	-.02 (.55)	.02 (.83)
MARKET+	.58 (.86)	.53 (.74)	.09 (1.66)*
TRADE	.01 (.57)	-.01 (.44)	.01 (.79)
OTHER	.01 (.14)	.03 (.75)	.04 (1.24)
PHYRES	.07 (1.81)*	.06 (1.54)	.04 (1.40)
n	635	635	635
R^2	.02	.02	.02
$\bar{R}^2$	.00	.01	.00
F	1.28	1.67	1.23

TABLE 6.50

COMPLETION OF, PARTICIPATION IN, AND USE OF SKILLS LEARNED IN GOVERNMENT-SPONSORED TRAINING FOR WOMEN YOUNGER ADULT WORKERS

	Completion	Participation	Used Skills
	B (t)	B (t)	B (t)
MARRIED	-.02 (1.56)	-.04 (2.69)**	-.02 (1.35)
RACE	.07 (3.65)**	.13 (5.43)**	.09 (5.09)**
SES	.01 (.72)	.03 (1.82)*	.02 (2.28)**
RURAL	.00 (.13)	.01 (.66)	-.01 (.40)
CLPREP	-.03 (1.54)	-.06 (2.28)**	-.05 (2.73)**
BSNS	-.01 (.46)	-.02 (1.03)	-.03 (1.68)*
MARKET+	-.03 (.70)	-.06 (1.09)	-.04 (.98)
TRADE+	.05 (1.39)	.00 (.03)	.02 (.69)
OTHER	-.03 (1.08)	-.07 (1.71)*	-.05 (1.63)
PHYRES	-.03 (.88)	.00 (.05)	-.03 (.91)
n	605	605	605
R^2	.04	.08	.07
$\bar{R}^2$	.03	.07	.06
F	2.72	5.21	4.80

TABLE 6.51

COMPLETION OF AND PARTICIPATION IN
GOVERNMENT-SPONSORED TRAINING
CLASS OF '72

		Vocational	College Prep	General
Participation	n	93	12	139
	%	3	2	3
Completion	n	69	77	96
	%	74	69	69

		AG	MARKET	HEALTH	HE	TRADE	BSNS
Participation	n	4	9	4	5	27	44
	%	2	3	3	4	3	3
Completion	n	3	7	3	3	22	31
	%	75	78	75	60	81	70

TABLE 6.52

COMPLETION OF GOVERNMENT-SPONSORED TRAINING
CLASS OF '72

	Men B (t)	Women B (t)
RACE	.00 (1.44)	.01 (5.30)**
RURAL	.00 (1.19)	-.00 (.74)
SES	.00 (1.00)	.00 (.63)
CLPREP	-.00 (.13)	-.01 (2.66)**
BSNS	.03 (3.55)**	-.01 (1.40)
MARKET	.01 (1.46)	-.01 (.73)
TRADE	.01 (1.74)*	.01 (.79)
OTHER	.00 (.41)	-.01(.69)
n	7,732	6,846
R^2	.00	.01
R^2	.00	.00
F	2.71	5.00

TABLE 6.53

MILITARY TRAINING BY CURRICULUM
YOUNGER ADULT WORKERS

		Vocational	College Prep	General
Participation	n	51	31	15
	%	8	8	7
Completion	n	48	30	15
	%	96	97	100
Certificate	n	44	29	12
	%	92	97	80
Use of Training	n	85	26	29
	%	66	55	76
Length of Training	$\bar{X}$	1.08	1.20	.27
	s.d.	1.85	1.88	.59

TABLE 6.54

MILITARY TRAINING BY VOCATIONAL PROGRAM
YOUNGER ADULT WORKERS

		AG	MARKET	HEALTH	HE	TRADE	BSNS
Participation	n	3	2	0	0	31	12
	%	9	9	-	-	14	4
Completion	n	3	2	0	0	29	11
	%	100	100	-	-	97	92
Certificate	n	3	2	0	0	26	10
	%	100	100	-	-	90	91
Length of Training	$\bar{X}$	2.67	2.00	-	-	1.10	.67
	s.d.	2.31	2.83	-	-	2.02	1.23

TABLE 6.55

COMPLETION OF, PARTICIPATION IN, AND USE OF SKILLS LEARNED IN MILITARY TRAINING FOR MEN YOUNGER ADULT WORKERS

	Completion	Participation	Used Skills
	B(t)	B(t)	B(t)
RACE	.07 (1.80)*	.08 (1.92)	.08 (2.36)**
SES	.00 (.13)	-.00 (.00)	-.01 (.57)
RURAL	-.08 (2.71)**	-.08 (2.68)**	-.05 (2.22)**
CLPREP	.00 (.13)	.01 (.16)	.01 (.44)
RSNS	.04 (.68)	.06 (1.05)	-.00 (.04)
MARKET+	.12 (1.07	.12 (1.07)	-.05 (.56)
TRADE	.03 (.73)	.04 (99)	.03 (.86)
OTHER	-.00 (.00)	-.00 (.00)	.04 (.67)
PHYRES	-.02 (.25)	-.02 (.33)	.03 (.63)
n	635	635	635
R^2	.02	.02	.02
$\bar{R}^2$	.01	.01	.01
F	1.47	1.62	1.57

TABLE 6.56

COMPLETION OF, PARTICIPATION IN, AND USE OF SKILLS LEARNED IN MILITARY TRAINING FOR WOMEN

	Completion	Participation	Used skills
	B(t)	B(t)	B(t)
MARRIED	.00 (.35)	.00 (.35)	-.01 (.58)
RACE	.01 (.87)	.01 (.87)	-.01 (.39)
SES	-.01 (.54)	-.01 (.54)	-.00 (.56)
RURAL	-.02 (1.34)	-.02 (1.34)	-.02 (1.66)*
CLPREP	-.00 (.05)	-.00 (.05)	-.01 (.44)
RSNS	-.01 (.87)	-.01 (.87)	-.01 (.43)
MARKET+	-.03 (.62)	-.03 (.62)	-.02 (.65)
TRADE+	.02 (.51)	.02 (.51)	-.02 (.71)
OTHER	-.03 (.92)	-.03 (.92)	-.02 (.73)
PHYRES	-.02 (.85)	-.02 (.85)	-.01 (.51)
n	605	605	605
R^2	.01	.01	.01
$\bar{R}^2$	-.01	-.01	-.01
F	.64	.64	.48

TABLE 6.57

COMPLETION OF AND PARTICIPATION IN
MILITARY TRAINING
CLASS OF '72

		Vocational	College Prep	General
Participation	n	76	193	154
	%	2	3	3
Completion	n	53	144	119
	%	70	75	77

		AG	MARKET	HEALTH	HE	TRADE	BSNS
Participation	n	10	12	1	0	35	18
	%	4	4	1	-	4	1
Completion	n	4	11	1	0	26	11
	%	40	92	100	-	74	61

TABLE 6.58

COMPLETION OF MILITARY TRAINING
CLASS OF '72

	Men B (t)	Women B (t)
PACE	.00 (.84)	.00 (.90)
RUPAL	-.02 (4.09)**	-.00 (1.24)
SES	.00 (1.37)	-.00 (.25)
CLPREP	-.00 (.81)	.00 (.55)
PSNS	-.01 (.64)	-.00 (1.03)
MARKET	.02 (1.66)*	-.01 (.88)
TRADE	-.01 (.85)	-.01 (.73)
OTHER	-.01 (.62)	-.01 (1.23)
n	7,732	6,840
R^2	.00	.00
R^2	.00	.00
F	3.11	1.02

TABLE 7.1

EXPECTATION OF HOLDING THE SAME JOB

FIVE YEARS HENCE BY CURRICULUM

YOUNGER ADULT WORKERS

V71	COUNT / ROW PCT / COL PCT / TOT PCT	COR VOCATIONAL 1	COLLEGE PREP 3	GENERAL 4	ROW TOTAL
YES	1	368	187	102	657
		56.0	28.5	15.5	68.1
		70.0	68.0	62.2	
		38.1	19.4	10.6	
NO	2	158	88	62	308
		51.3	28.6	20.1	31.9
		30.0	32.0	37.8	
		16.4	9.1	6.4	
COLUMN TOTAL		526	275	164	965
		54.5	28.5	17.0	100.0

NUMBER OF MISSING OBSERVATIONS = 46

TABLE 7.2

EXPECTATION OF HOLDING THE SAME JOB FIVE YEARS HENCE

BY VOCATIONAL PROGRAM

YOUNGER ADULT WORKERS

V71	V23 COUNT / ROW PCT / COL PCT / TOT PCT	AGRICULT URE 1	MKTG&DIST 2	HEALTH 3	HOME ECO NOMICS 4	TRADE OR INDUSTR 5	BUSINESS OFFICE 6	OTHER 7	ROW TOTAL
YES	1	16	16	5	9	126	193	2	361
		4.4	4.4	1.4	2.5	34.9	53.5	0.6	69.7
		69.6	80.0	62.5	75.0	72.8	70.4	25.0	
		3.1	3.1	1.0	1.7	24.3	37.3	0.4	
NO	2	7	10	3	3	47	81	6	157
		4.5	6.4	1.9	1.9	29.9	51.6	3.8	30.3
		30.4	50.0	37.5	25.0	27.2	29.6	75.0	
		1.4	1.9	0.6	0.6	9.1	15.6	1.2	
COLUMN TOTAL		23	20	8	12	173	274	8	518
		4.4	3.9	1.5	2.3	33.4	52.9	1.5	100.0

NUMBER OF MISSING OBSERVATIONS = 493

TABLE 7.3

EXPECTATION OF BEING IN THE SAME JOB IN FIVE YEARS
YOUNGER ADULT WORKERS

	Men		Women	
	B (t)	B (t)	B (t)	B (t)
SES	-.04 (1.27)	-.05 (1.40)	-.07 (1.93)*	-.08 (1.98)**
RURAL	-.01 (.24)	-.03 (.63)	.07 (1.33)	.02 (.46)
EXPER	.01 (1.98)	.01 (2.77)**	.01 (1.95)*	.01 (2.42)**
RACE	-.23 (3.76)**	-.25 (4.05)**	-.13 (2.07)**	-.15 (2.27)**
CLPREP	.06 (1.09)	.04 (.73)	-.01 (.12)	-.03 (.41)
RSNS	.22 (2.72)**	.21 (2.55)**	.02 (.40)	.03 (.54)
MARKET+	.01 (.07)	.03 (.20)	-.08 (.53)	-.11 (.72)
TRADE	.15 (2.74)**	.16 (2.83)**	-.07 (.56)+	-.05 (.44)+
OTHER	.10 (1.00)	.12 (1.18)	.04 (.39)	.06 (.58)
TENURE(MNTHS)	.00 (3.07)**	.00 (3.40)**	.00 (1.08)*	.00 (1.65)*
MTC	.13 (2.66)**	.14 (2.77)**	.10 (1.80)	.13 (2.22)**
YEXP	.03 (4.13)**		.04 (4.27)**	
COLL4YR		.13 (2.16)**		.14 (2.05)**
EMPSP		.02 (.34)		.11 (2.04)**
PVT		.10 (1.67)*		.08 (1.14)
PCCT		.06 (.97)		.15 (2.32)**
APP		-.02 (.39)		.10 (1.19)
GVT		-.23 (2.32)**		.01 (.05)
MOS		.03 (.44)		-.11 (.66)
ADMDEG		-.05 (.53)		.04 (.36)
MARRIED			-.02 (.34)	-.02 (.48)
n	543	543	526	526
R^2	.12	.12	.08	.07
$\bar{R}^2$	.10	.09	.05	.04
F	6.11	3.66	3.29	2.04

TABLE 7.4

TYPE OF ASPIRED OCCUPATION BY CURRICULUM

YOUNGER ADULT WORKERS

X75	COUNT / ROW PCT / COL PCT / TOT PCT	CUR: VOCATIONAL 1	COLLEGE PREP 3	GENERAL 4	ROW TOTAL
PROFESSIONAL	1	48	43	18	109
		44.0	39.4	16.5	41.9
		34.8	55.8	40.0	
		18.5	16.5	6.9	
MANAGERIAL	2	16	19	10	45
		35.6	42.2	22.2	17.3
		11.6	24.7	22.2	
		6.2	7.3	3.8	
SALES	3	14	7	4	25
		56.0	28.0	16.0	9.6
		10.1	9.1	8.9	
		5.4	2.7	1.5	
CLERICAL	4	28	1	3	32
		87.5	3.1	9.4	12.3
		20.3	1.3	6.7	
		10.8	0.4	1.2	
CRAFTS	5	14	3	5	22
		63.6	13.6	22.7	8.5
		10.1	3.9	11.1	
		5.4	1.2	1.9	
OPERATIVES	6	6	1	1	8
		75.0	12.5	12.5	3.1
		4.3	1.3	2.2	
		2.3	0.4	0.4	
LABOR	7	3	0	0	3
		100.0	0.0	0.0	1.2
		2.2	0.0	0.0	
		1.2	0.0	0.0	
FARM	8	5	1	0	6
		83.3	16.7	0.0	2.3
		3.6	1.3	0.0	
		1.9	0.4	0.0	
SERVICE	9	4	2	4	10
		40.0	20.0	40.0	3.8
		2.9	2.6	8.9	
		1.5	0.8	1.5	
COLUMN TOTAL		138	77	45	260
		53.1	29.6	17.3	100.0

NUMBER OF MISSING OBSERVATIONS = 69

TABLE 7.5

OCCUPATION DESIRED AT AGE 30

CLASS OF '72

VAR370	COUNT / ROW PCT / COL PCT / TOT PCT	COMMERCIAL	COLLEGE PREP	GENERAL	ROW TOTAL
		1.	2.	3.	
PROFE	1.	596	2923	1301	4820
		12.3	60.7	27.0	37.0
		20.2	51.9	29.1	
		4.6	22.5	9.9	
MANGMNT	2.	520	1339	849	2714
		19.4	49.3	31.3	20.7
		17.6	23.8	19.0	
		4.0	10.2	6.5	
SALES	3.	112	265	104	479
		23.4	55.4	21.7	3.7
		3.8	4.7	2.3	
		0.9	2.0	0.8	
CLERICAL	4.	811	357	304	1472
		55.1	24.3	20.7	11.2
		27.4	6.3	6.8	
		6.2	2.7	2.3	
CRAFTS	5.	414	318	603	1335
		31.0	23.8	45.2	10.2
		14.0	5.6	13.5	
		3.2	2.4	4.6	
OPERATIVES	6.	284	102	413	859
		33.1	11.9	48.1	6.5
		9.6	1.8	9.2	
		2.2	0.8	3.1	
LABOR	7.	101	96	235	432
		23.4	22.2	54.4	3.3
		3.4	1.7	5.3	
		0.8	0.7	1.8	
FARM	8.	65	84	117	266
		24.4	31.6	44.0	2.0
		2.2	1.5	2.6	
		0.5	0.6	0.9	
SERVICE	9.	152	141	231	524
		29.0	26.9	44.1	4.0
		5.1	2.5	5.2	
		1.2	1.1	1.8	
D\	10.	10	15	17	42
		23.8	35.7	40.5	0.3
		0.3	0.3	0.4	
		0.1	0.1	0.1	
	95.	0	1	0	1
		0.0	100.0	0.0	0.0
		0.0	0.0	0.0	
		0.0	0.0	0.0	
	96.	4	3	3	10
		40.0	30.0	30.0	0.1
		0.1	0.1	0.1	
		0.0	0.0	0.0	
	97.	0	1	0	1
		0.0	100.0	0.0	0.0
		0.0	0.0	0.0	
		0.0	0.0	0.0	
	98.	17	23	28	68
		25.0	33.8	41.2	0.5
		0.6	0.4	0.6	
		0.1	0.2	0.2	
	COLUMN TOTAL	2954	5694	4467	13115
		22.5	43.4	34.1	100.0

TABLE 7.6

OCCUPATION DESIRED AT AGE 30 BY CURRICULUM

NLS BOYS

V203	COUNT / ROW PCT / COL PCT / TOT PCT	CURCM VOCATIONAL 1	VOC BUSINESS 2	COLLEGE PREP 3	OTHER 4	ROW TOTAL
PROFESSIONAL	1	11	7	117	59	[illegible]
		5.7	3.6	60.3	30.4	32.[illegible]
		17.7	23.3	41.1	26.3	
		1.8	1.2	19.5	9.8	
MANAGERIAL	2	14	10	97	68	1[illegible]
		7.4	5.3	51.3	36.0	31.[illegible]
		22.6	33.3	34.0	30.4	
		2.3	1.7	16.1	11.3	
CLERICAL	3	2	1	3	3	[illegible]
		22.2	11.1	33.3	33.3	1.[illegible]
		3.2	3.3	1.1	1.3	
		0.3	0.2	0.5	0.5	
SALES	4	1	0	9	9	[illegible]
		5.3	0.0	47.4	47.4	3.[illegible]
		1.6	0.0	3.2	4.0	
		0.2	0.0	1.5	1.5	
CRAFTS	5	14	7	19	29	[illegible]
		20.3	10.1	27.5	42.0	11.[illegible]
		22.6	23.3	6.7	12.9	
		2.3	1.2	3.2	4.8	
OPERATOR	6	4	1	4	17	[illegible]
		15.4	3.8	15.4	65.4	4.[illegible]
		6.5	3.3	1.4	7.6	
		0.7	0.2	0.7	2.8	
LABORER	7	0	0	2	2	[illegible]
		0.0	0.0	50.0	50.0	0.7
		0.0	0.0	0.7	0.9	
		0.0	0.0	0.3	0.3	
SERVICE	8	4	1	5	4	[illegible]
		28.6	7.1	35.7	28.6	[illegible]
		6.5	3.3	1.8	1.8	
		0.7	0.2	0.8	0.7	
FARM	9	4	0	6	8	[illegible]
		22.2	0.0	33.3	44.4	3.[illegible]
		6.5	0.0	2.1	3.6	
		0.7	0.0	1.0	1.3	
OTHER	10	8	3	23	25	[illegible]
		13.6	5.1	39.0	42.4	9.[illegible]
		12.9	10.0	8.1	11.2	
		1.3	0.5	3.8	4.2	
COLUMN TOTAL		62	30	285	224	[illegible]
		10.3	5.0	47.4	37.3	100.[illegible]

NUMBER OF MISSING OBSERVATIONS = 1067

TABLE 7.7

OCCUPATION DESIRED AT AGE 35 BY CURRICULUM

NLS GIRLS

V203	COUNT / ROW PCT / COL PCT / TOT PCT	CURCM: VOCATIONAL 1	VOC BUSINESS 2	COLLEGE PREP 3	OTHER 4	ROW TOTAL
PROFESSIONAL	1	10 2.0 28.6 0.7	44 8.9 19.0 3.2	292 58.9 49.2 21.0	150 30.2 28.2 10.8	496 35.7
MANAGERIAL	2	1 0.7 2.9 0.1	24 15.6 10.4 1.7	[illegible] 55.9 14.4 6.1	42 27.6 7.9 3.0	152 11.0
CLERICAL	3	11 3.7 31.4 0.8	73 24.3 31.6 5.3	80 26.6 13.5 5.8	137 45.5 25.8 9.9	301 21.7
SALES	4	0 0.0 0.0 0.0	7 17.9 3.0 0.5	19 48.7 3.2 1.4	13 33.3 2.4 0.9	39 2.8
CRAFTS	5	1 5.0 2.9 0.1	4 20.0 1.7 0.3	5 25.0 0.8 0.4	10 50.0 1.9 0.7	20 1.4
OPERATOR	6	5 10.4 14.3 0.4	10 20.8 4.3 0.7	8 16.7 1.3 0.6	25 52.1 4.7 1.8	48 3.5
LABORER	7	0 0.0 0.0 0.0	1 50.0 0.4 0.1	0 0.0 0.0 0.0	1 50.0 0.2 0.1	2 0.1
SERVICE	8	2 2.1 5.7 0.1	19 20.2 8.2 1.4	17 18.3 2.9 1.2	55 59.6 10.5 4.0	93 6.7
FARM	9	0 0.0 0.0 0.0	4 21.1 1.7 0.3	5 26.3 0.8 0.4	10 52.6 1.9 0.7	19 1.4
OTHER	10	5 2.3 14.3 0.4	45 20.5 19.5 3.2	82 37.4 13.8 5.9	87 39.7 16.4 6.3	219 15.8
	COLUMN TOTAL	35 2.5	231 16.6	592 42.7	529 38.2	1387 100.0

NUMBER OF MISSING OBSERVATIONS = [illegible]

TABLE 7.8

NEED FOR ADDITIONAL SCHOOLING
YOUNGER ADULT WORKERS

	Men		Women	
	B (t)	B (t)	B (t)	B (t)
SES	.00 (.03)	.02 (.39)	-.04 (.61)	-.02 (.25)
RURAL	-.04 (.51)	-.02 (.30)	-.09 (.98)	-.07 (.73)
EXPER	-.02 (2.31)**	-.03 (2.56)**	-.02 (1.72)*	-.02 (2.00)**
RACE	-.04 (.39)	-.02 (.24)	.24 (2.41)**	.27 (2.70)*
CLPRSP	.13 (1.35)	.22 (2.19)**	.05 (.41)	.11 (.90)
BSNS	.02 (.11)	.08 (.05)	-.00 (.03)	.01 (.08)
MARKET+	-.24 (.89)	-.29 (1.05)	.31 (1.21)	.27 (1.05)
TRADE	.33 (3.16)**	.33 (3.21)**	-.04 (.18)+	.13 (.56)+
OTHER	-.22 (.96)	-.18 (.78)	-.03 (.19)	-.02 (.14)
TENURE(MNTHS)	.00 (2.70)**	.00 (2.64)**	.00 (.03)	-.00 (.27)
MDIC	.06 (.64)	.07 (.78)	-.06 (.57)	-.09 (.95)
YEXP	-.02 (1.87)*		-.02 (1.10)	
ADVDEG		-.17 (1.08)		-.22 (1.22)
COLL4YR		-.21 (1.98)**		-.06 (.52)
EMPSP		-.01 (.10)		.13 (1.21)
PVT		-.05 (.50)		-.23 (1.93)*
PCCT		.11 (.95)		-.07 (.53)
APP		.02 (.16)		-.03 (.16)
GVT		.45 (2.62)**		-.17 (.78)
MDS		-.03 (.31)		-.27 (1.06)
n	166	166	181	181
R^2	.17	.24	.09	.14
$\bar{R}^2$	.11	.14	.03	.03
F	2.66	2.42	1.45	1.34

TABLE 7.9

NEED FOR ADDITIONAL SCHOOLING
CLASS OF '72

	Men B (t)	Women B (t)
RACE	.02 (3.09)**	.04 (6.26)**
RURAL	-.10 (9.01)**	-.06 (4.79)**
SES	-.00 (.48)	.00 (3.62)**
TENURE(MNTHS)	-.00 (8.72)**	-.00 (5.85)**
EXPER	-.00 (.69)	-.00 (.30)
APP	-.12 (2.80)**	.06 (.54)
EMPSP	.09 (4.65)**	.06 (3.12)**
MOS	.25 (6.98)**	.17 (2.17)**
COLL4YR	-.01 (.94)	.04 (2.57)**
ADVDEG	-.20 (6.50)**	-.14 (4.19)**
OTHER	.02 (1.65)*	.04 (2.48)**
GVT	.10 (2.21)**	.14 (3.04)**
CLPREP	.04 (3.33)**	.05 (3.55)**
BSNS	.01 (.42)	-.05 (2.64)**
MARKET	-.06 (1.61)	-.03 (.71)
TRADE	.01 (.45)	.07 (1.26)
OTHER	-.07 (2.20)**	.03 (.98)
n	7518	6641
R^2	.05	.04
$\overline{R}^2$	.05	.03
F	21.92	14.55

TABLE 7.10

TYPE OF ASPIRED TRAINING BY CURRICULUM
YOUNGER ADULT WORKERS

		Vocational	College Prep	General
Marketing	n	5	3	2
	%	4	5	6
Health-related	n	9	4	4
	%	8	7	12
Trade school	n	19	6	5
	%	17	10	15
Clerical	n	6	0	2
	%	5	0	6
Community College	n	3	1	1
	%	3	2	3
College - BA	n	29	18	8
	%	26	30	24
Graduate School	n	16	21	4
	%	14	34	12
On the job	n	5	2	0
	%	4	3	0
Other	n	10	4	2
		9	7	6
Don't know	n	10	2	6
	%	9	3	18
TOTAL	n	112	61	34

TABLE 7.11

LENGTH OF ASPIRED TRAINING BY CURRICULUM

YOUNGER ADULT WORKERS

RS	MEAN / COUNT / SUM / STD DEV	CUR: VOCATIONAL 1	COLLEGE PREP 3	GENERAL 4	ROW TOTAL
1 WHITE MALE		1.62	1.72	1.71	1.67
		94	75	45	214
		152.25	128.75	77.17	358.17
		1.42	1.48	1.23	1.40
2 WHITE FEMALE		1.88	1.89	1.90	1.88
		117	54	24	195
		219.83	102.17	45.50	367.50
		1.36	1.30	1.17	1.32
3 MINOR MALE		1.71	2.38	2.50	1.97
		23	8	5	36
		39.42	19.00	12.50	70.92
		1.27	1.30	0.50	1.22
4 MINOR FEMALE		1.60	2.56	2.11	1.92
		22	8	11	41
		35.25	20.50	23.17	78.92
		0.90	1.12	1.18	1.07
COLUMN TOTAL		1.75	1.86	1.86	1.80
		256	145	85	486
		446.75	270.42	158.33	875.50
		1.34	1.39	1.18	1.33

NUMBER OF MISSING OBSERVATIONS = 5

TABLE 7.12

LENGTH OF ASPIRED TRAINING BY VOCATIONAL PROGRAM

YOUNGER ADULT WORKERS

RS		V23 AGRICULTURE 1	MKTG&D.E 2	HEALTH 3	HOME ECON. 4	TRADE OR INDUSTR. 5	BUSINESS OFFICE 6	OTHER 7	ROW TOTAL
WHITE MALE	1	1.77	4.75	0.0	0.0	1.51	1.73	1.31	1.62
		8	2	0	0	68	12	4	94
		14.17	9.50	0.0	0.0	102.58	20.75	5.25	152.25
		1.79	0.35	0.0	0.0	1.32	1.48	1.11	1.42
WHITE FEMALE	2	2.00	1.50	2.50	1.11	1.51	1.90	1.58	1.89
		1	1	3	3	7	93	2	116
		2.00	10.50	7.50	3.33	10.58	182.42	3.17	219.50
		0.0	0.87	1.50	0.84	0 84	1.43	2.00	1.36
MINOR MALE	3	1.50	0.0	0.0	1.13	1.50	2.54	3.00	1.71
		2	0	0	2	14	4	1	23
		3.00	0.0	0.0	2.25	21.00	10.17	3.00	39.42
		0.71	0.0	0.0	1.24	1.15	1.84	0.0	1.27
MINOR FEMALE	4	0.0	0.0	2.00	1.00	1.75	1.60	0.0	1.60
		0	0	1	1	2	18	0	22
		0.0	0.0	2.00	1.00	3.50	28.75	0.0	35.25
		0.0	0.0	0.0	0.0	0.35	0.98	0.0	0.90
COLUMN TOTAL		1.74	2.22	2.38	1.10	1.51	1.91	1.63	1.75
		11	4	3	6	91	127	7	255
		19.17	20.00	9.50	6.58	137.67	242.08	11.42	446.42
		1.52	1.62	1.25	0.77	1.24	1.39	1.29	1.34

NUMBER OF MISSING OBSERVATIONS = 236

TABLE 7.13

NUMBER OF YEARS OF ASPIRED TRAINING
YOUNGER ADULT WORKERS

	Men		Women	
	B (t)	B (t)	B (t)	B (t)
SES	.17 (.93)	.14 (.70)	.19 (.83)	-.06 (.25)
RURAL	.43 (1.42)	.42 (1.34)	.14 (.39)	.35 (.99)
EXPER	-.08 (2.05)**	-.08 (1.84)*	-.04 (1.17)	-.01 (.24)
RACE	.55 (1.55)	.33 (1.03)	-.07 (.24)	-.17 (.57)
CLERER	.87 (2.51)**	.78 (2.18)**	.62 (1.52)	.14 (.33)
BSNS	.11 (.19)	.30 (.50)	.28 (.82)	.12 (.34)
MARKET+	2.37 (1.72)*	3.77 (2.39)**	-.12 (.14)	.26 (.32)
TRADE	-.07 (.20)	-.12 (.33)	-1.10 (1.07)+	-.41 (.32)+
OTHER	-1.55 (1.53)	-.82 (.76)	.38 (.54)	18 (.25)
TENURE(MNTHS)	.00 (.64)	-.00 (.03)	.01 (2.15)**	.01 (1.87)*
MOTC	.13 (.38)	.15 (.41)	-.14 (.42)	-.21 (.62)
YEMP	-.04 (.34)		-.12 (1.47)	
ADMIT		1.85 (2.11)**		.23 (.32)
CDL14YR		-.59 (1.42)		.64 (1.53)
EMPSP		-.26 (.59)		-.65 (1.77)*
PVT		.14 (.32)		1.40 (2.13)**
PCCT		.43 (.94)		.42 (.81)
APP		-.43 (1.01)		.89 (1.80)*
CVT		-.70 (1.36)		-.21 (.28)
MOS		.15 (.35)		-.24 (.25)
n	108	108	111	111
R^2	.21	.28	.11	.28
$\bar{R}^2$	.11	.12	.00	.12
F	2.06	1.76	1.04	1.76