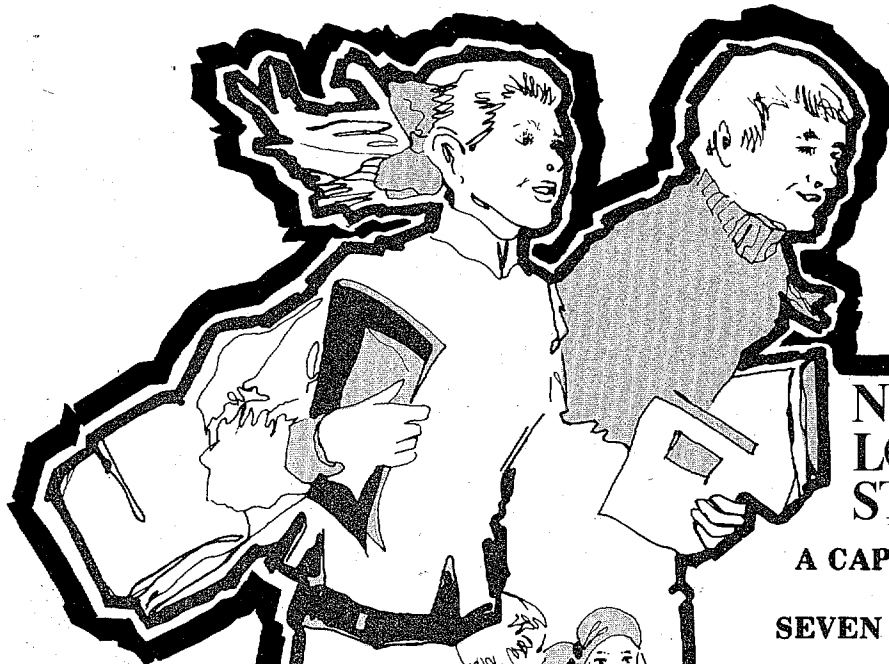
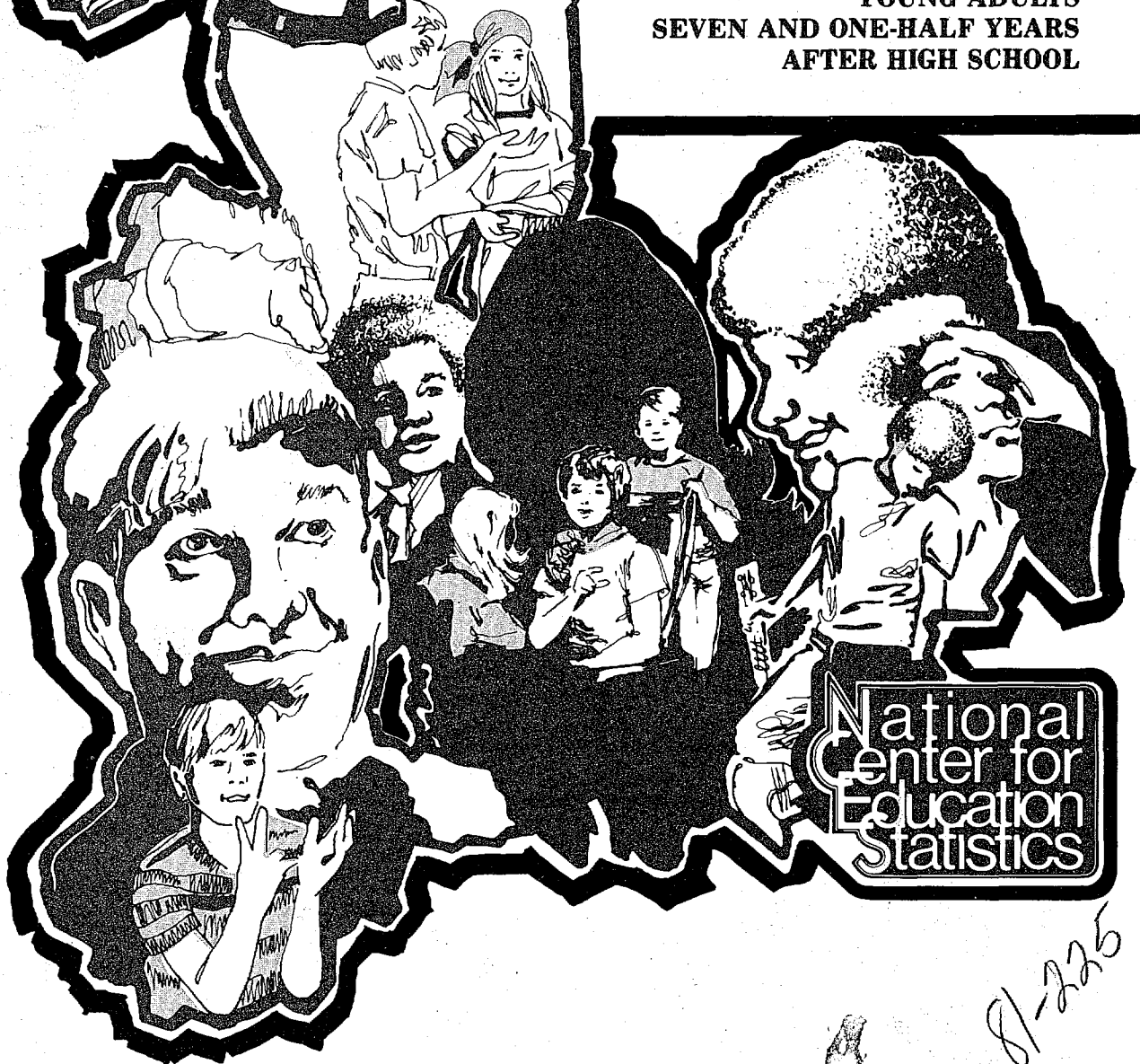


Carroll



# NATIONAL LONGITUDINAL STUDY

A CAPSULE DESCRIPTION OF  
YOUNG ADULTS  
SEVEN AND ONE-HALF YEARS  
AFTER HIGH SCHOOL



National  
Center for  
Education  
Statistics

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**NATIONAL LONGITUDINAL STUDY  
SPONSORED REPORTS SERIES  
NCES81-255**

# **A CAPSULE DESCRIPTION OF YOUNG ADULTS SEVEN AND ONE-HALF YEARS AFTER HIGH SCHOOL**

by

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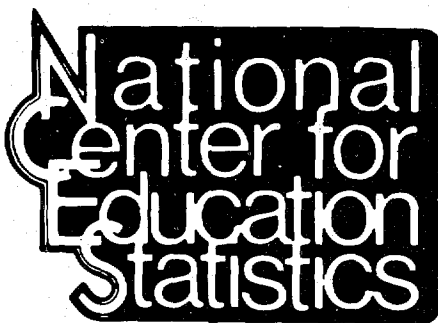
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August 1981

## HIGHLIGHTS

### Postsecondary Education

- By October 1979, about one-fourth of the Class of 1972 had obtained a bachelor's degree or higher, while another fourth had never enrolled in postsecondary education. Among those who had aspired to postsecondary education as high school seniors, the majority had achieved or exceeded their expectations. Whites were considerably more likely than other racial/ethnic groups to have received a bachelor's degree by October 1979.
- Among college graduates, major fields of study were about evenly divided between the Arts and Sciences and applied fields; however, a greater percentage of men had obtained degrees in the former than had women. About 22 percent of college graduates had enrolled in graduate or professional school by October 1979, with entry rates generally higher among men and those with Arts and Science undergraduate degrees than women and graduates of applied fields.
- The proportion of the cohort attending some form of postsecondary school was highest (54 percent) in the October immediately following high school graduation in 1972. As of October 1979, 14 percent were attending some form of postsecondary school; 4 percent were enrolled in graduate or professional programs, 5 percent in 4-year academic programs, and the remainder in 2-year academic or vocational/technical programs.
- Among those who had been enrolled in academic programs, almost one-fourth were still indebted for educational expenses in October 1979; median indebtedness among these individuals was about \$2,000. Only about four in five of those indebted were actively repaying their loans.

### Work

- As of October 1979, more than four out of five of the 1972 high school graduates were employed either full- or part-time. About 12 percent of those employed (excluding full-time students) were holding more than one job, and almost one-third of those who were working exclusively (not homemakers and not students) were employed for more than 44 hours per week.
- Worker earnings increased with greater work experience and with greater educational attainment. High school graduates with six or more years of work experience had about the same hourly earnings as college graduates with less than two years work experience.
- Part-time work rates have been and continue to be greater for women than for men. Additionally, part-time work rates for black and white men, though consistently higher for blacks, did not differ substantially in any of the eight years since high school; on the other hand, black women worked part-time at higher rates than white women in the three years following high school, but at lower rates since 1977.
- The percentage of the cohort in the labor force has increased steadily since 1972. The unemployment rate, which remained fairly stable at 7 to 9 percent through age 23, had dropped to about 4 percent by age 25. For both sexes, unemployment continued to be considerably higher among blacks than whites.
- Over three-fourths of those working were in the private sector, about 17 percent were in the public sector, and 5 percent were self-employed or in a family business. Women were

*(continued)*

more likely than men to be employed in the public sector, and blacks and Hispanics were more likely than whites to be so employed. College graduates were more than twice as likely as those with no college education to be employed in the public sector.

- About 14 percent of the cohort men had served in the military service at some time since 1972, and enlistment was greater among blacks than other racial/ethnic groups. Active duty rates among women have remained more or less constant at 1 percent or less since graduation.

### **Other Activities**

- As of October 1979, 57 percent of the men and 70 percent of the women were or had been married; about 11 percent of those ever married had been divorced, widowed, or separated; and 56 percent of those married had at least one child.
- Over half of those married in October 1979 owned their own home and about three-fourths had a working spouse. While nearly one in ten married individuals was receiving some form of public assistance, the likelihood of receiving such assistance was inversely related to educational attainment.
- As they grew older, the class of 1972 shifted the emphasis among their life goals. Between 1972 and 1979 more importance was attached to having a happy family life and living close to parents and relatives, while less importance was attached to being a community leader and working to correct social and economic inequities.

## FOREWORD

The National Longitudinal Study of the High School Class of 1972 (NLS) was designed to provide an ongoing and updated data base for a nationally representative sample of high school seniors as they moved out of the American high school system into the critical years of early adulthood. The study began with a group-administered survey of these young adults conducted in spring 1972 prior to their leaving high school. This was followed by a series of periodic mail and personal interview follow-up surveys. The first follow-up survey was conducted from October 1973 to April 1974, the second from October 1974 to April 1975, the third from October 1976 to April 1977, and the fourth from October 1979 to May 1980. A second longitudinal study, the High School and Beyond (HS&B) study, subsequently has been initiated, beginning with a survey of 1980 high school sophomores and seniors.

The purpose of these surveys was to obtain information about the basic educational and vocational activities of young adults and their continuing or revised plans, aspirations, and attitudes, and both studies should contribute to an understanding of early adult development and of factors determining individual educational and career outcomes. Such information is useful as a basis for review and reformulation of Federal, state, and local policies affecting the transition of youth from school to adult life.

The NLS data collected from the in-school and follow-up surveys have been merged and processed, and the availability of this longitudinal data base encourages in-depth research for meeting educational policy needs at local, state, and Federal levels. Preliminary results are being presented in a series of reports designed to highlight selected findings in educational, career, and occupational development.

This report (one in the series), taken from the analysis of responses to the NLS survey, is a summary of some descriptive information about the education, work, family, and community activities of these young adults since leaving high school. Many details are not included in the report because its purpose is to highlight and release some of the preliminary findings. Readers who are interested in more complete statistics should refer to the *Tabular Summary of the Fourth Follow-Up Questionnaire Data*, which contains weighted percentage tabulations of responses to all questions for the total population and 55 important subgroups. Additional information about the availability of NLS or HS&B reports may be obtained from the Statistical Information Office, National Center for Education Statistics, 1001 Presidential Building, 400 Maryland Ave. SW., Washington, D.C. 20202, telephone (301) 436-7900. Inquiries about availability of related computer tapes should be directed to Data Systems Branch, National Center for Education Statistics, 1001 Presidential Building, 400 Maryland Ave. SW., Washington, D.C. 20202, telephone (301) 436-7944.

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# I. INTRODUCTION

## A. General

This report summarizes some of the results from the National Longitudinal Study of the High School Class of 1972 (NLS), a large-scale survey project conducted by Educational Testing Service (ETS) and the Research Triangle Institute (RTI) for the National Center for Education Statistics (NCES). The principal purpose of the study is to examine the vocational activities, plans, aspirations, and attitudes of young adults after they leave high school and to relate this information to prior educational experiences and to personal and biographical characteristics.

The information presented in the report focuses on the most recent time period for which survey data have been collected (i.e., seven and one-half years following high school graduation); however, the longitudinal nature of the study allows comparisons to prior time periods, where appropriate. Additional summary information for previous time periods may be obtained from prior capsule summary reports (Fetters, 1974; Peng and Duntzman, 1976; Eckland and Bailey, 1977; Eckland and Wisenbaker, 1979).

The capsule report is organized into five sections, in addition to this introduction, addressing various topical areas of interest. Section II overviews the current activities of NLS sample members, and Sections III through V consider in more detail educational, employment, and family-related outcomes, respectively. Experiences and opinions in other areas—including military service, political participation, and life goals—are treated collectively in Section VI. Four technical appendixes also are provided. Appendix A addresses some limitations on the data, including a brief discussion on the precision of reported estimates and generalized standard errors; Appendix B includes supporting tables for some reported results; Appendix C includes basic analysis specifications; and Appendix D provides examples of pertinent questionnaire items.

Due to the abbreviated nature of this report, only a very small portion of the available NLS data is addressed. Complete statistical descriptions of NLS data items (in total and cross-tabulated by selected groups of interest) are available elsewhere (Thompson, 1974; Tabler, 1976; Peng and Holt, 1977; Peng, *et al.*, 1978; Larsen, *et al.*, 1981). Additionally, a current and fully documented NLS data tape and Users Manual (Riccobono, *et al.*, 1981) are available from NCES.

## B. Background

The NLS was designed and implemented to allow a better understanding of the development of young adults as they pass through the American educational system and of the complex factors associated with individual educational and career outcomes. Such information is needed as a basis for effective planning, implementation, and evaluation of Federal, state, and local policies and programs designed to enhance educational opportunity and achievement and to upgrade occupational attainments and career outcomes.

Following a rather extensive period of planning, which included the design and field test of survey instrumentation and procedures, a full-scale survey was initiated in spring 1972. This base-year survey (Hilton and Rhett, 1973), conducted by ETS, collected student data onsite in the high schools, including high school record information, scores on a specially developed test battery, and questionnaire responses about high school experiences, background, opinions and attitudes, and plans for the future. Other information about the high school and its educational programs also was collected in the base year.

Subsequently, four major follow-up surveys have been conducted by RTI from October through April or May of the years 1973-74, 1974-75, 1976-77, and 1979-80. They involved the collection, by mail and personal interview, of student questionnaire data including information about activities and accomplishments since the prior survey, attitudes and opinions, and plans for the future. Additionally, RTI has conducted several supplemental survey efforts to collect, retrospectively, key items of information that had not been provided during prior major surveys. Methodological details of the several follow-up surveys are available elsewhere (Bailey, 1976(a); Bailey, 1976(b); Levinsohn and McAdams, 1978; Riccobono, Burkheimer, and Place, 1981).

The sample design for NLS is based on a deeply stratified national probability sample of high schools and up to 18 students clustered within the 1972 graduating class of each high school (Westat, 1972). After augmentations to and resurvey of the original sample, the final sample consisted of 1,318 high schools and 23,451 former high school seniors from those schools (Moore and Shah, 1975; Moore, 1975). Due to intensive data collection procedures, the response rates to individual surveys have been

very high (89 percent or better among survey-eligible sample members). In conjunction with the supplemental data collection efforts, this led to a high degree of sample integrity among the key lon-

gitudinal data elements. More detailed rates of response to various surveys and of availability of specific data items are provided elsewhere (Ricobono, et al., 1981).

## II. OVERVIEW OF CURRENT STATUS

In all follow-up studies, a central concern has been the general status classification (or activity state) of cohort members at a given point in time. This concern was addressed by inquiring, "What were you doing the first week of October [of a particular year]?", which typically was the first item in all follow-up questionnaires and which allowed for some multiple classifications of an individual (see Appendix D). Responses to this question for 1979

from the total cohort and from selected subgroups are given in Table 1. For comparison purposes, total group results for 1976 and 1974 also are presented. General trends over the three time points are summarized below and examined in greater detail in the following sections.

- The proportions still in school show a steady and expected decrease since 1974; however, a sizeable portion of the cohort was still in-

Table 1.—Percent in specified October 1979 activity states as a function of sex and race/ethnicity

Activity states in October 1979	All persons <sup>a</sup>			Men			Women		
	1979	1976	1974	Whites	Blacks	Hispanics <sup>b</sup>	Whites	Blacks	Hispanics <sup>b</sup>
Working for pay at a full- or part-time job	81%	72%	68%	92%	87%	88%	72%	76%	71%
Enrolled in graduate or professional school	5	5	—†	6	4	4	4	2	2
Taking academic courses at a 2- or 4-year college	7	17	34	7	7	12	7	8	5
Taking vocational or technical courses at any kind of school or college	3	4	6	3	3	2	2	3	3
Serving in an apprenticeship or government training program	1	—†	—†	2	2	4	1	1	0
On active duty in the armed forces	3	4	5	4	8	3	1	1	1
Homemaker	26	22	15	1	2	1	52	38	51
Temporary layoff from work, looking for work, or waiting to report to work	4	9	6	4	6	4	4	8	7
Other	5	4	4	4	5	4	6	4	5
Number of cases	18,616	20,081	20,857	7,175	967	368	7,379	1,360	358

<sup>a</sup>Includes American Indians, Asian Americans, and other racial/ethnic groups, as well as persons not classifiable as to sex or racial/ethnic group (see Appendix D).

<sup>b</sup>This group is composed of individuals who defined themselves as either "Mexican American," "Puerto Rican," or "Latin American" (see Appendix D).

†Activity state was not measured at omitted prior time points.

NOTE: Percentages are rounded to the nearest whole percent and are defined for the group indicated in the column heading; however, since activity state categories are not mutually exclusive, percentages will sum to a value greater than 100 percent. Separate statistics for other racial/ethnic groups are not presented, since numbers of cases involved (either individually or collectively) are too small to provide stable estimates.

- volved in educational pursuits in 1979. The percent in graduate or professional school remained the same as 3 years previously—about 5 percent of the cohort. About 1 in 14 was still taking academic courses at a 2- or 4-year institution of higher education (less than half the number 3 years earlier). The percentage taking vocational or technical courses shows a small but steady decline over the three time periods.
- For those who entered postsecondary education immediately following high school graduation and who progressed continuously, adequate time had passed by October 1979 to complete undergraduate study under all but the most atypical part-time course loads. Consequently, those still enrolled full- or part-time at 4-year higher education institutions probably represented delayed entrants, reentrants (following forced or voluntary dropout), or those pursuing an alternate career. Those in 2-year higher education institutions or in vocational/technical training likewise may have represented these categories, but probably also represented a number of individuals who were developing or sharpening skills or knowledge that may or may not have been related to their occupation.
  - The proportion of cohort members who were working increased steadily from 68 percent in October 1974 to 81 percent in October 1979, reflecting in part the decrease in postsecondary enrollment and also (since 1976) the decrease in the number who were on temporary layoff, waiting to report to work, or unemployed and looking for work. A relatively small number of individuals (slightly over 1 percent) were serving in an apprenticeship or government job-training program in 1979.
  - The proportion of homemakers also increased over all three time points, although the rate of increase from 1976 to 1979 was less than that from 1974 to 1976. The change in status was almost exclusively among the women in the sample. The percentages of homemakers among women were 29, 42, and 50 for the years 1974, 1976, and 1979, respectively, while the percentage of male homemakers remained relatively constant at 1 or 2 percent.

- There has been a steady decline in the proportion of cohort members serving in the armed forces since 1974, and the decline has been greater among men than women. Four percent of the men were in the military in October 1979, down from six percent in 1976 and nine percent in 1974. During the same time period, the military service rate among women remained at about 1 percent.

A number of sex and racial/ethnic differences in 1979 status also are indicated in Table 1. Beyond those previously noted, the major sex difference is related to working, with men more likely than women to be working full-time or part-time within each racial/ethnic group. A similar result has been observed in previous surveys, and is obviously due in part to the fact that some (but clearly not all) of the women homemakers were engaged in that activity exclusively, and, thus, were not in the labor force. The only remaining male-female differences of note are the much greater likelihood of men to be enrolled in college within the Hispanic group and a general tendency for greater proportions of men to be enrolled in graduate/professional training and to be serving in apprenticeships or government job-training programs.

Racial/ethnic differences, where they exist, are not generally the same for men and women. While white men were more likely to be working than black or Hispanic men, employment rates among black women were greater than those for either white or Hispanic women—which probably reflects, to some extent, the much lower percentage of black female homemakers. For both sexes, blacks were more likely to be on temporary layoff, looking for work, or waiting to report for work, but among women the black-white difference is greater and the black-Hispanic difference is less. Among men, blacks were twice as likely as whites or Hispanics to be on active duty in the armed forces in October 1979, a finding that has been observed with regularity in previous surveys. Among women, racial/ethnic differences in military service rates are minor. The only racial/ethnic difference that is consistent for men and women is the greater proportion of whites enrolled in graduate or professional school.

### III. POSTSECONDARY EDUCATION

#### A. Attendance Trends

The number of 1972 high school graduates who were attending some form of postsecondary school in October declined steadily from 1972 to 1979. The estimated percentages of the cohort enrolled full- or part-time at eight sequential time points were:

Time	Typical Age	Percent
October 1972	18	54
October 1973	19	45
October 1974	20	40
October 1975	21	37
October 1976	22	25
October 1977	23	16
October 1978	24	15
October 1979	25	14

Figure 1 indicates the decline graphically for whites, blacks, and Hispanics (see also Appendix B, Table B.1). The enrollment trends are similar for the three groups; however, there are some obvious differences. While all groups showed a sharp decline in enrollment (about ten percentage points for each group) from the first to the second October following high school, the decline among blacks from the second to fourth October was noticeably less than for the other groups. Also, the drop in enrollment following the fourth year (when an undergraduate course of study could be completed under conventional progression) was sharper for blacks and whites than for Hispanics. Since 1976, the enrollment rates for the three groups have differed by no more than three percentage points, whereas postsecondary enrollment was consistently

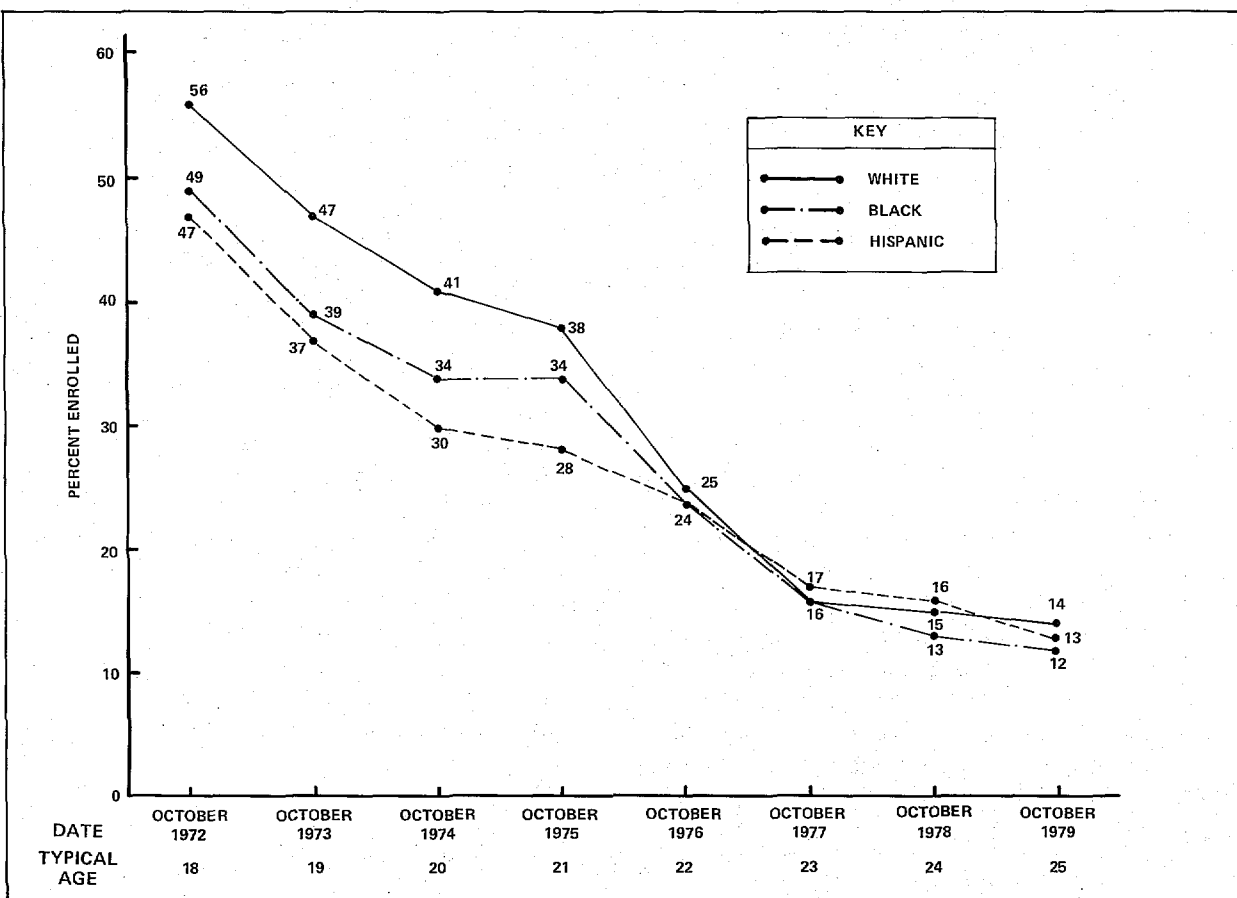


Figure 1. Enrollment in postsecondary education over time as a function of race/ethnicity.



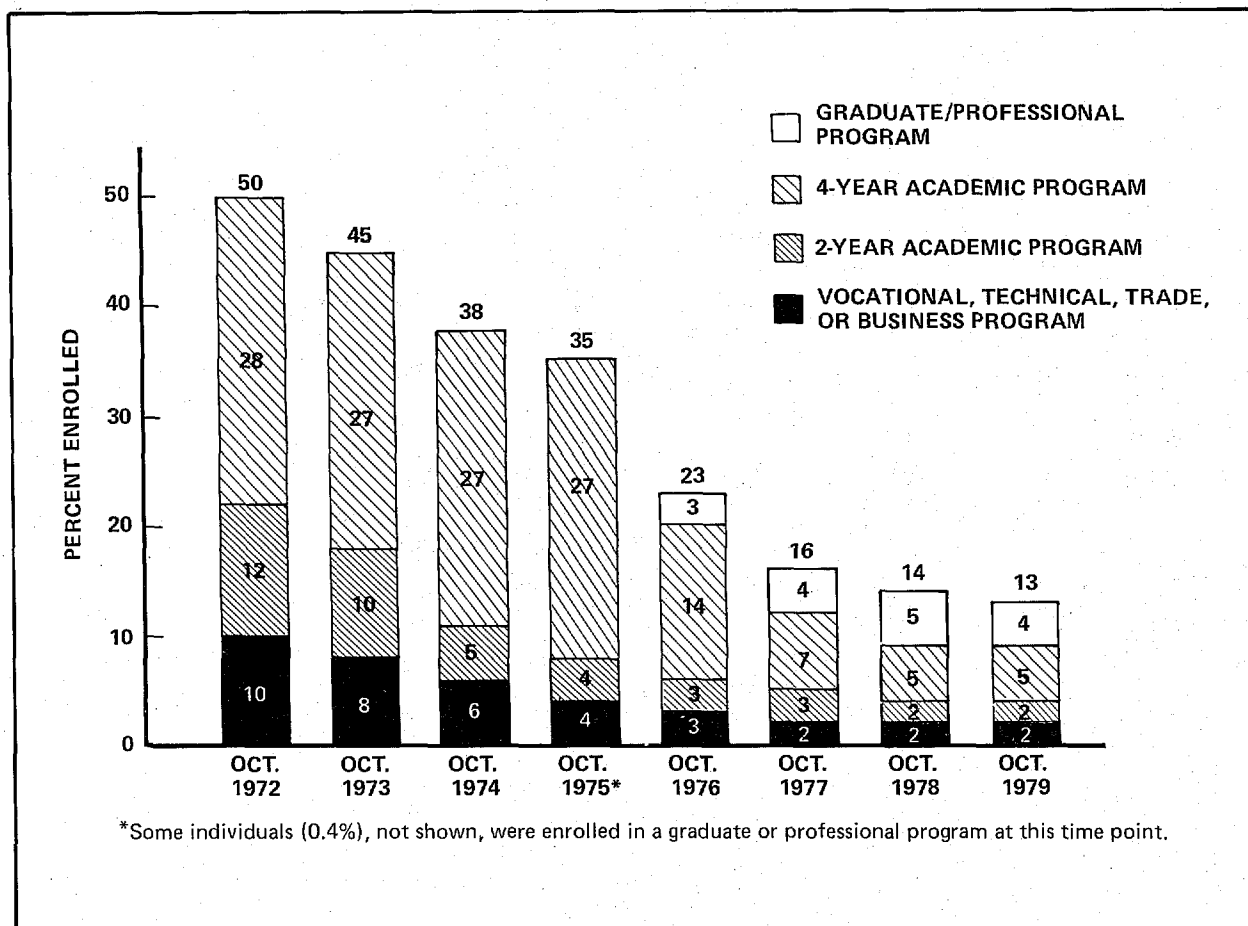


Figure 2. Enrollment in postsecondary education over time by type of program.

and noticeably greater among whites during the first 3 years after high school.

The percentages of the cohort enrolled in each of four types of postsecondary programs (vocational/technical, 2-year academic, 4-year academic, and graduate/professional) are presented in Figure 2.<sup>1</sup> While delayed entrants, reentrants, and transfers certainly contributed to the results (see Eckland and Wisenbaker, 1979), enrollment trends during the first 4 years following high school generally reflect conventional educational progression. This is shown through the steady decline of enrollment in vocational/technical programs, a sharp drop, following the second year, of enrollment in 2-year academic programs, and a relatively constant enrollment in 4-year academic programs.

<sup>1</sup>These results were compiled by NCES, and greater detail is provided elsewhere (Kolstad, 1981).

The enrollment trend since 1976 shows a relatively stable enrollment in graduate or professional programs, sharp decreases in 4-year academic program enrollment, and a continuing small percentage enrolled in vocational/technical and 2-year academic programs. The continued enrollment in other than graduate or professional programs probably represents principally individuals pursuing a career by entering (or reentering) the postsecondary educational system at an atypical time, but also probably includes many who were enrolled part-time at local community colleges or technical institutes to broaden their general knowledge or to obtain specific skills not directly related to their occupation. This is suggested by other NLS data indicating that almost 20 percent of those enrolled in vocational/technical or in 2- or 4-year academic programs had already obtained a bachelor's degree.

## B. Educational Attainment by October 1979

The educational attainment of the class of 1972 seven and one-half years after high school is shown in Table 2. Although continuing education may be expected to shift the distributions subsequently toward the upper attainment levels, the overall pattern should have been fairly well established by this point in time. About one-fourth of the cohort had received a bachelor's degree or higher, and another fourth had never enrolled in postsecondary education; the remainder had attained some intermediate level of education.

Even with the heavy focus on equality of educational opportunity within the past decade, sex and race/ethnicity differences in educational attainment are evidenced in Table 2. Considering the extreme attainment groups (those with no postsecondary

education and those with bachelor's or advanced degrees), sex differences are moderated by race/ethnicity. Among whites and Hispanics, men had a lower likelihood than women of obtaining only a high school education, and they had received bachelor's or higher degrees at higher rates. Among blacks, however, there was little difference in the percentages of men and women within either extreme attainment group. The proportion of whites who had received degrees (bachelor's or advanced) was higher than that among blacks which, in turn, was higher than that among Hispanics. Among men, the proportion with no postsecondary education was an exact reversal (i.e., greatest among Hispanics and least among whites); however, the percentage of black women with no postsecondary education was somewhat less than that for white women.

Educational attainment by October 1979 is

Table 2.—Educational attainment by October 1979 as a function of sex and race/ethnicity

Level of educational attainment	All persons <sup>a</sup>	Men			Women		
		Whites	Blacks	Hispanics <sup>b</sup>	Whites	Blacks	Hispanics <sup>b</sup>
Total	100%	100%	100%	100%	100%	100%	100%
Advanced degree	3	3	1	2	2	2	1
Four- or five-year baccalaureate degree	23	26	16	13	23	17	8
Two or more years college plus some vocational/technical training <sup>c</sup>	8	8	9	10	8	9	9
Two or more years college <sup>c</sup>	9	9	10	10	7	9	10
Less than 2 years college plus some vocational/technical training	10	9	10	10	11	14	13
Less than 2 years college	8	9	9	13	9	8	8
Vocational/technical training only	13	14	17	11	11	16	13
High school only	26	21	27	32	29	25	38
Number of cases	18,580	7,165	962	368	7,366	1,355	358

<sup>a</sup>Includes American Indians, Asian Americans, and other racial/ethnic groups, as well as persons not classifiable as to sex or racial/ethnic group (see Appendix D).

<sup>b</sup>This group is composed of individuals who defined themselves as either "Mexican American," "Puerto Rican," or "Latin American" (see Appendix D).

<sup>c</sup>Includes, but is not restricted to, those with 2-year college degrees.

NOTE: Tabled percentage distributions are rounded to the nearest whole percent and are defined for the group indicated in the column headings. Separate statistics for other racial/ethnic groups are not presented, since numbers of cases involved (either individually or collectively) are too small to provide stable estimates.

shown as a function of base-year educational expectations in Figure 3. The figure indicates a strong relationship between expectations as a high school senior and attainment seven and one-half years later. Excluding those who expected to complete graduate/professional school (since attainment of that level is not shown and completion could not necessarily have been obtained under conventional progression), educational attainment for most of those who aspired to postsecondary education had equaled or exceeded original expectations.

### C. Financial Aid

The need of financial aid by college students has been widely recognized and several sources for such aid are available from both Federal and non-Federal sources. The Federal government sponsors a number of large financial aid programs, including basic grants (Pell), supplemental grants, and loans

(FGSL, NDSL). The grant programs did not become large sources of aid until the fall of 1973; consequently, a large proportion of students in this cohort did not participate.

The percentages of the cohort who were full-time students at 2- and 4-year institutions of higher education and were receiving various kinds of financial aid are given in Figure 4 (see also Table B.2) for each of seven academic years. For purposes of this presentation, individuals are further classified on the basis of reported tuition and fees paid during the year considered. Using an approximate median split, low tuition (and fees) is defined as \$700 per year or less, and high tuition is defined as more than \$700 per year. Types of financial aid considered are grants, loans, and any aid (including college work-study and cooperative education program). Two major sources of aid (Federal and non-Federal) as well as total aid (including aid from indeterminate sources) are also considered.

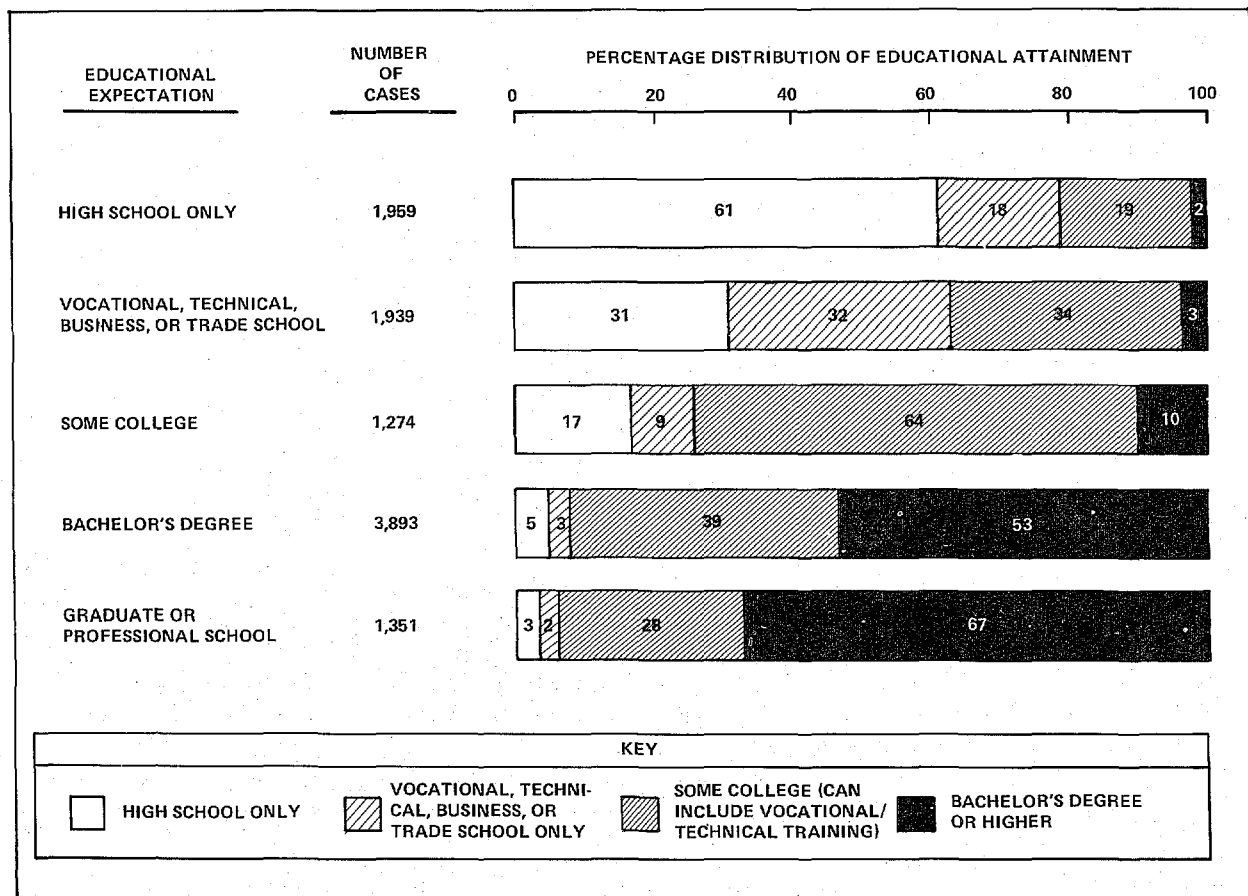


Figure 3. October 1979 educational attainment for specified Spring 1972 educational expectation groups.

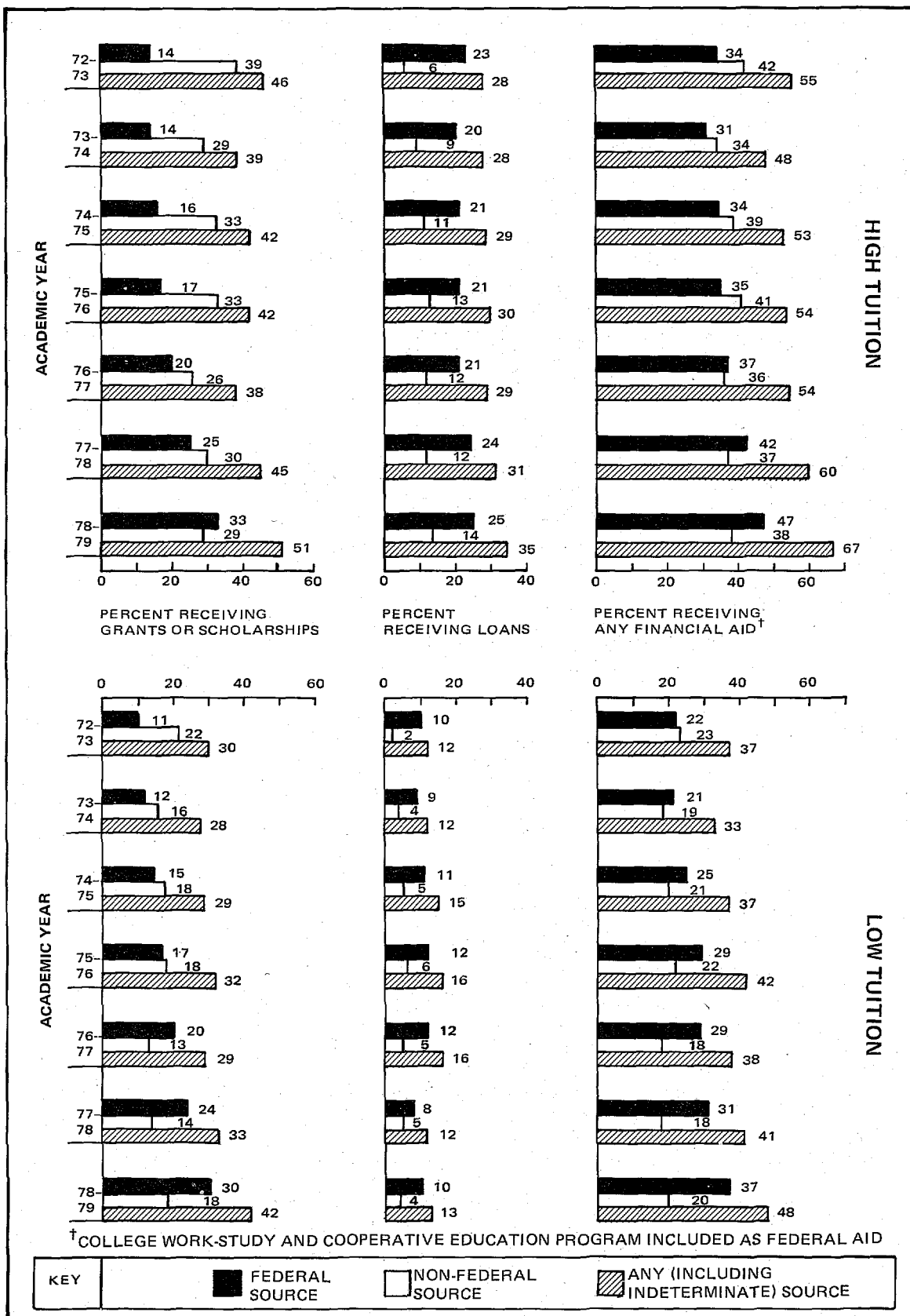


Figure 4. Percentages of students receiving specified kinds of financial aid in each of seven academic years, by reported tuition and fees category.

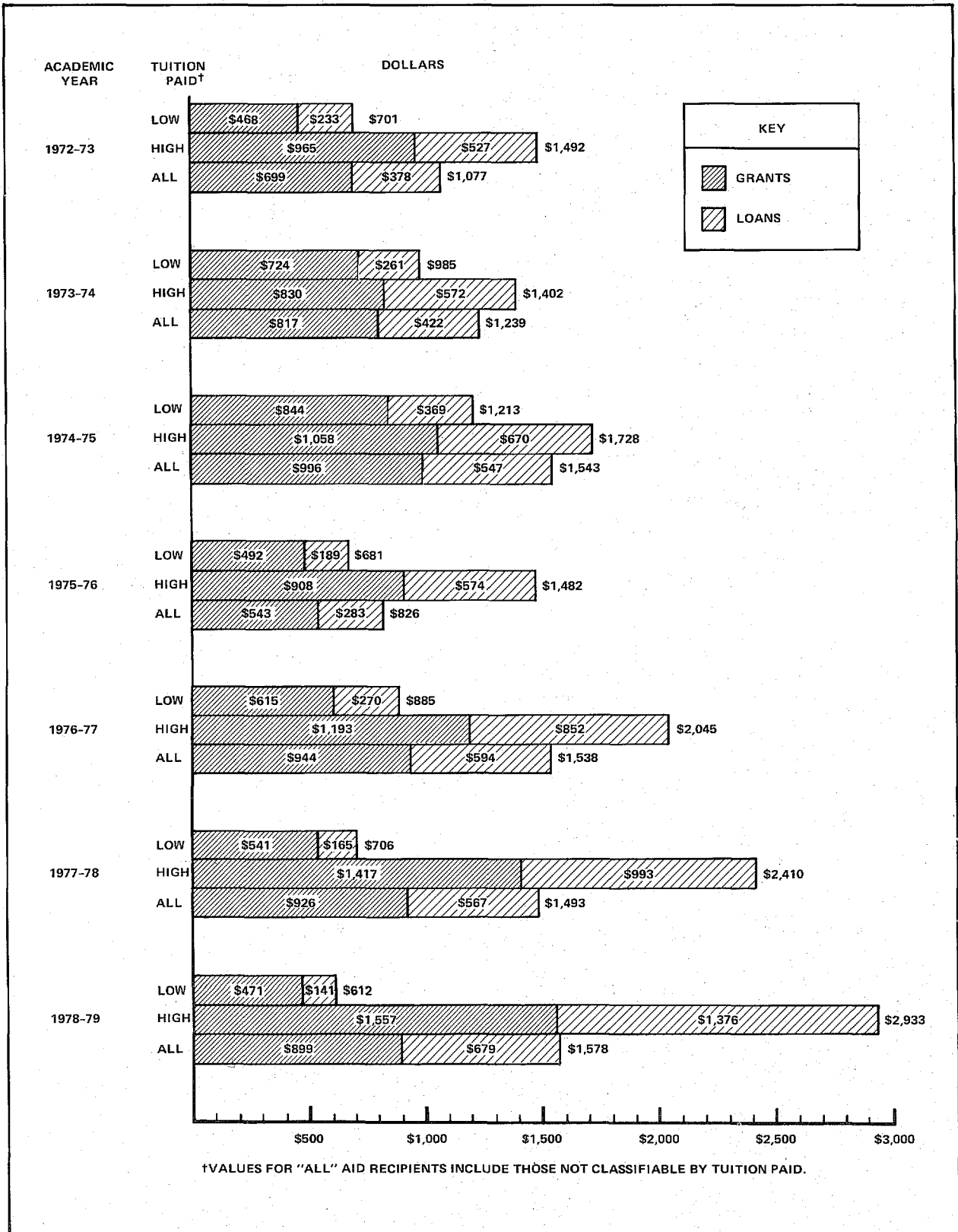


Figure 5. Average grant and loan amounts for financial aid recipients in each of seven academic years, by reported tuition and fees category.

Although the composition of the full-time-enrolled subpopulation of the high school class of 1972 changes from year to year, thus making time trend comparisons somewhat tenuous, differences in financial aid receipt among high and low tuition students as well as differences in source of aid are clear. Considering first the receipt of any financial aid, it can be seen for any time point considered that students paying high tuition were more likely to be receiving some form of financial aid (in all but one time period, 53 percent or more were receiving aid) than students paying low tuition (42 percent or less in all but one time period). The greater likelihood for high tuition students to receive some type of aid holds for both Federal sources and (to a much greater extent) non-Federal sources.

High tuition students generally assumed loans at over twice the rate of low tuition students in all time periods, and this greater propensity held both for loans from Federal sources and for those from non-Federal sources (although the percentage of students assuming non-Federal loans was rather small in both groups). Likewise, a greater proportion of high tuition students received some kind of grant or scholarship; this difference was principally attributable to non-Federal sources (differences between the two tuition groups in the percentage receiving Federal grants were no more than three percentage points in any time period, even though the percent receiving such grants increased in time for both groups). Figure 4 also suggests that the percentage receiving aid (either loans or grants) simultaneously from both sources (Federal and non-Federal) was greater among high tuition students.

The average dollar amounts of loan-grant financial aid packages for each of the seven academic years among those in the cohort enrolled full-time and receiving any form of financial aid are given in Figure 5 (see also Table B.3). Again, the temptation to make trend comparisons over time should be tempered by the fact that the composition of the subpopulations considered changes each year. Generally, however, the dollar values shown in Figure 5 further emphasize the differences previously observed in Figure 4. Not only did the high tuition students receive aid at greater rates, but among those receiving aid high tuition students received greater amounts, and the composition of their financial aid package relied more heavily on loans.

Figure 4 has suggested that a sizeable number of those who attended college incurred a debt through assuming some form of educational loan. The proportions who still owed money for an educational

loan, together with other indicators related to educational indebtedness, are given in Table 3. Almost a fourth of those who had ever attended a 2-year or 4-year college (or university) were still indebted in the fall of 1979; the median indebtedness was \$2,000. Among those for whom the loan repayment schedule had become active, only about four out of five were actively repaying the loan, and over one-fourth reported difficulty in making payments (though the median payment was only \$42 per month).

Since the argument that educational indebtedness serves to inhibit purchases of homes has been advanced in some quarters, the educational indebtedness indicators have been computed for homeowners and nonowners separately (see also

Table 3.—Educational indebtedness indicators as a function of home ownership

Educational indebtedness indicator	All persons <sup>a</sup>	Home ownership	
		Owners	Nonowners
Percent still owing money for educational loan N=	24% (10,427)	15% (3,258)	27% (7,138)
Median indebtedness for those owing N=	\$2,000 (2,467)	\$1,500 ( 513)	\$2,000 (1,946)
Percent of those owing who are paying <sup>b</sup> N=	83% (1,599)	89% ( 393)	81% (1,190)
Percent of those owing who report difficulty in meeting payments <sup>b</sup> N=	27% (1,631)	18% ( 403)	29% (1,212)
Median monthly payment <sup>c</sup> N=	\$42 (1,319)	\$39 ( 345)	\$45 ( 961)

<sup>a</sup>Includes individuals not classifiable by home ownership.

<sup>b</sup>Analyses restricted to those for whom repayment schedule is currently active.

<sup>c</sup>Analyses restricted to those for whom repayment schedule is active and who are paying.

NOTE: Statistics reported were computed only for those who had attended a 2- or 4-year institution of higher education; the number of cases (N) on which each statistic is based is provided in parentheses.

Subsection V.C). Greater educational indebtedness was evidenced among those who did not own homes, both in terms of percent indebted and size of debt; however, other results reported in Table 3 do not support the contention of any major conflict between home purchase and educational loan repayment, since homeowners were actively repaying their educational loans at higher rates and reported repayment difficulty at lower rates.

#### D. The College Graduates

Major areas of study for college graduates in the cohort are shown in Table 4. In aggregate, college majors were more or less evenly divided among Arts and Sciences (48 percent) and applied fields; how-

ever, a greater percentage of men had obtained degrees in Arts and Sciences (51 percent) than had women (46 percent). The distribution of specific major for men and women also shows some marked differences. The most popular field for men was Business; about one-fourth of the men reported this major, twice the rate reported by women. Among women, Education was the most popular major (25 percent, which was almost three times the rate among men). Other areas of study showing disproportionate (i.e., better than two to one) representation of males are Biological Sciences, Physical Sciences and Mathematics, and Engineering. Disproportionate female representation (about six to one) is also observed for Health Services (which in-

Table 4.—Area of college degree as a function of sex and of receipt of federal aid

Major degree area	Percentage Distributions			Percent male within field <sup>b</sup>	Percent receiving federal aid within field <sup>b</sup>
	All persons <sup>a</sup>	Men	Women		
TOTAL — ALL AREAS	100%	100%	100%	—	—
ARTS AND SCIENCES					
Humanities or fine arts	13	10	16	42%	38%
Biological sciences <sup>c</sup>	7	10	5	67	46
Physical sciences or mathematics <sup>c</sup>	7	9	5	68	48
Social science	15	17	13	59	50
Other <sup>d</sup>	6	5	7	48	43
APPLIED FIELDS					
Business	18	24	12	70	39
Education	16	9	25	29	47
Engineering	6	10	1	90	39
Health service	7	2	12	18	46
Other <sup>e</sup>	4	3	4	46	32
Number of cases	4,611	2,345	2,266	—	—

<sup>a</sup>Includes those not classifiable by sex or receipt of federal aid.

<sup>b</sup>Percentages indicated are within the corresponding area of study, consequently combinations over different areas of study are not warranted.

<sup>c</sup>Those classified in fields including both biological and physical science have been equally divided among these categories.

<sup>d</sup>Includes general classifications such as "Liberal Arts and Sciences."

<sup>e</sup>Includes Agriculture, Home Economics, and related applied fields.

NOTE: Areas in which individuals earned a bachelor's degree were determined principally from field of study codes.

clude Nursing, Dental Assisting, and other health support services traditionally staffed principally by women).

Table 4 also indicates the proportion of college graduates within each major who received Federal financial aid at any time during their postsecondary education. Receipt of Federal aid varies from a low of 32 percent among those who received degrees in the residual applied field category (principally Agriculture or Home Economics) to a high of 50 percent among those receiving degrees in the Social Sciences. Among the remaining degree categories, the percent who had received Federal financial aid falls within the range of 38 to 48 percent.

Table 5 shows graduate/professional school entry rates among college graduates. In aggregate, about 22 percent of those who had received undergraduate degrees reported having enrolled for more advanced education. Table 5 indicates that graduate and professional school entry rate was generally higher among those with Arts and Science undergraduate degrees than for those with undergraduate majors in applied fields, as might be expected. Overall entry rates for those with Bachelor's degrees in Arts and Science fields were all equal to or greater than the 22 percent average, while that average was exceeded in only one of the applied fields (Health Sciences). Further, as indicated in previous results, this continuation rate was higher for men than for women. The greater continuation rate among men is reflected within all fields; however, differences are generally larger among college graduates in Arts and Science. For those receiving degrees in Biological Sciences (many of whom may have been aiming for medical or dental school), the continuation rate for men (44 percent) is almost double that for women.

Table 5.—Graduate and professional school entry rates among college graduates as a function of sex and undergraduate area of study

Undergraduate area of study <sup>a</sup>	All persons	Men	Women
ALL PERSONS <sup>b</sup>	22% N= (4,745)	25% (2,428)	18% (2,317)
ARTS AND SCIENCES			
Humanities or fine arts	22 N= ( 601)	27 ( 249)	18 ( 352)
Biological sciences <sup>c</sup>	37 N= ( 398)	44 ( 257)	23 ( 141)
Physical sciences or mathematics <sup>c</sup>	25 N= ( 350)	28 ( 225)	20 ( 125)
Social sciences	29 N= ( 702)	30 ( 391)	27 ( 311)
Other <sup>d</sup>	23 N= ( 270)	26 ( 132)	20 ( 138)
APPLIED FIELDS			
Business	12 N= ( 824)	14 ( 546)	8 ( 278)
Education	15 N= ( 805)	18 ( 223)	14 ( 582)
Engineering	21 N= ( 255)	21 ( 233)	15 ( 22)
Health services	27 N= ( 310)	32 ( 58)	25 ( 252)
Other <sup>e</sup>	10 N= ( 192)	12 ( 88)	8 ( 104)

<sup>a</sup>As defined from field of study codes.

<sup>b</sup>Includes those not classifiable by undergraduate area of study, and counts are not duplicated for those in fields classified as both biological and physical science.

<sup>c</sup>Those classified in fields including both biological and physical science have been included in both of these categories.

<sup>d</sup>Includes general classifications such as "Liberal Arts and Sciences."

<sup>e</sup>Includes Agriculture, Home Economics, and related applied fields.

NOTE: Cell entries represent the percent continuing for graduate/professional training after college graduation within the group defined by row and column headings; the number of cases (N) within each cell is provided in parentheses.



## IV. EMPLOYMENT

As indicated previously, 81 percent of the class of 1972 were employed either full- or part-time in October 1979, approximately seven and one-half years following high school graduation. Previously reported results also have suggested sex and racial/ethnic differences in employment. The trend of rising employment over time is one that would be expected as more of the cohort members complete their formal education and are available to the labor force. Since employment has become a major factor in the lives of the large majority of these young adults, employment-related topics are treated more fully in this section.

### A. Employment Trends

Two basic factors are related to employment trends over time: membership in the labor force and unemployment among labor force members. For purposes of this presentation, labor force members are defined to be those who were not full-time students and were either employed (including those in the military), looking for work, laid off, or waiting to report for work; all other persons are defined as not in the labor force.<sup>2</sup> The percent of the cohort not in the labor force has decreased steadily since October 1972; labor force nonmembership rates for eight successive years were:

Date	Typical Age	Percent
October 1972	18	57
October 1973	19	46
October 1974	20	42
October 1975	21	39
October 1976	22	27
October 1977	23	21
October 1978	24	19
October 1979	25	18

This trend, by definition, mirrors, to a large extent, the enrollment trend presented in the previous section. The sharp drop between 1975 and 1976 echoes

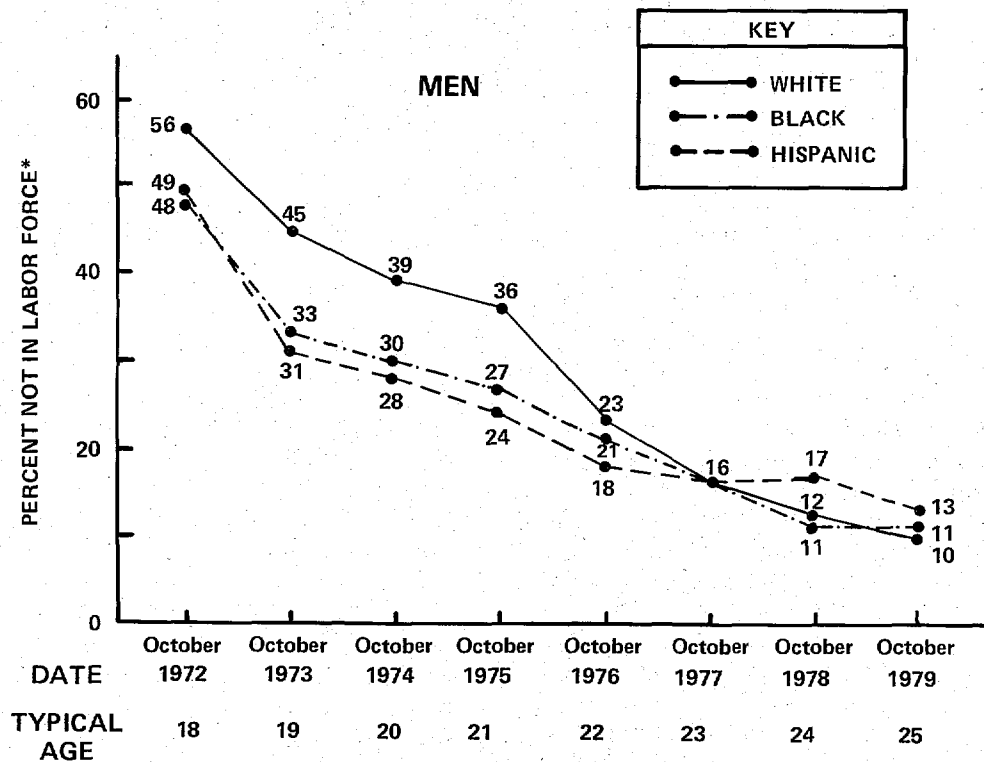
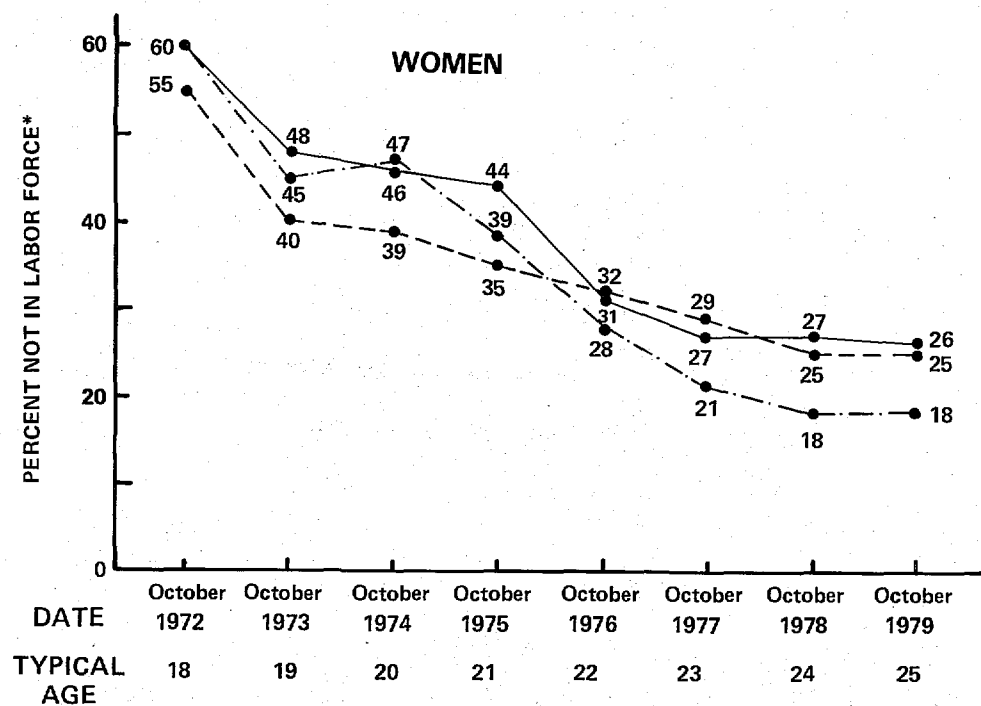
a similar drop in postsecondary education enrollment, corresponding to the time at which cohort members would have completed a 4-year undergraduate course of study under conventional progression.

Labor force nonmembership trends by sex and race/ethnicity are shown in Figure 6 (see also Table B.4). Obvious (and expected) differences exist between the rates for men and women; at any time point and within any racial/ethnic group fewer men than women were labor force nonmembers. The labor force nonmembership rates for men parallel enrollment rates (see Figure 1) much more closely than those for women, suggesting that obtaining a higher education was the major factor in preventing men from entering the labor force. While obtaining an education certainly also prevented women from entering the labor force, additional factors (e.g., becoming full-time homemakers) appear to have been operating.

In the first 4 years following high school graduation, the percentage of white males not in the labor force was noticeably higher than that of black and Hispanic men, paralleling the higher rate of educational enrollment among whites. By 1977, however, the labor force nonmembership rates of white, black, and Hispanic men were the same; subsequently, rates among blacks and whites continued to coincide closely, with that for Hispanics somewhat higher. Among women, racial/ethnic patterns are somewhat different. In the first 3 years after high school black and white women were out of the labor force at about the same rate, but at noticeably higher rates than Hispanic women. The rates came closest to coinciding in 1976, after which rates for whites and Hispanics were quite similar within a range from 25 to 30 percent, while rates for blacks continued to drop below 20 percent. As indicated previously, both full-time student rates and full-time homemaker rates contribute heavily to the women's labor force nonmembership rates. The differences among racial/ethnic groups in percentages of women not in the labor force are reasonably consistent with differences in general enrollment trends (Figure 1) in combination with differences in marriage rates (Figures 9 and 10 in the following section).

The second factor considered is the unemploy-

<sup>2</sup>This definition differs from typical U.S. Department of Labor (DOL) definitions of labor force participation principally as a result of excluding full-time students; otherwise, DOL definitions (cf., Bureau of Labor Statistics, 1976) are used to the extent they can be supported by available data. Consequently, this report uses the terminology labor force membership.



\*Definition of labor force differs somewhat from the Department of Labor's standard definition (see text).

Figure 6. Labor force nonmembership rates over time by sex and race/ethnicity.

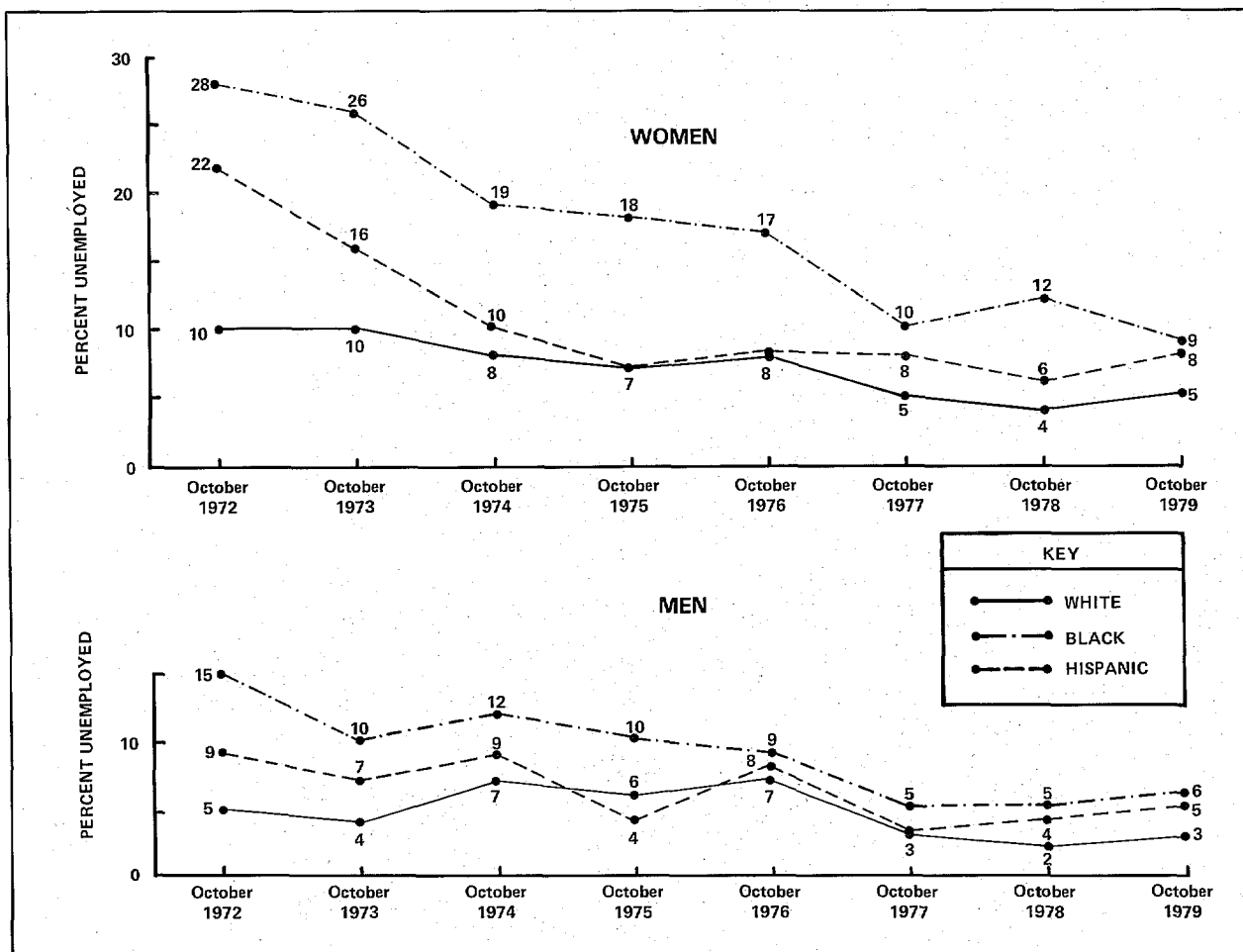


Figure 7. Unemployment rates among labor force members over time by sex and race/ethnicity.

ment rate among those defined to be in the labor force.<sup>3</sup> Rates of unemployment in the cohort remained relatively stable at between 7 and 9 percent for the first 5 years following high school graduation; however, since 1977 (typical age of 23), unemployment has dropped to about 4 percent. Marked sex and racial/ethnic differences in unemployment rates over time do exist, however, and they are shown in Figure 7 (see also Table B.5).

Unemployment among women in the labor force has been higher than that for men; also, racial/ethnic differences in unemployment are greater among women (although relative differences are

more constant between the sexes). For both sexes and at all time points, unemployment was greatest among blacks. Unemployment has been particularly acute among black women, who in the first 5 years following high school graduation experienced unemployment rates in excess of 15 percent and who were unemployed at at least twice the rate of white women in all years except 1979. Further, while differences in unemployment rates among black and white men in the cohort did not exceed six percentage points after 1972, black men were still unemployed at twice the rate of whites, even in October 1979. Unemployment rates for Hispanics (men or women) were generally intermediate between those for whites and blacks; however, estimates of these rates are based on a much smaller sample, which has been further reduced by considering only labor force members, and can be expected to be somewhat more unstable.

<sup>3</sup> This conditional definition of unemployment also differs from standard DOL definitions; however, given the previously observed differences in labor force membership, the definition used here should provide more meaningful comparisons over time and among subgroups than the more traditional unconditional measure.

## B. Extent of Work

Employment, as discussed in the previous subsection, includes both full- and part-time workers; however, the distinction between full- and part-time work is an important one in considering the overall employment picture. Excluding full-time students, the part-time work rate for employed persons in the cohort has remained quite stable at between 8 and 10 percent since October of 1974, although the rate was twice that large (19 percent) in the October immediately following high school graduation, and half again that large (15 percent) in October 1973. The greater part-time work rates in the two Octobers following high school graduation could easily be attributable to the higher overall postsecondary enrollment rates in those years,

specifically to part-time students, who work part-time at greater rates than the nonstudent population.

As with previous employment-related considerations, some marked sex and racial/ethnic differences exist in part-time work rates. These differences are shown graphically in Figure 8 (see also Table B.6). Part-time work rates for women were noticeably greater than for men, and racial/ethnic trends were different for men and women. Considering blacks and whites only (estimates for Hispanics are again based on much smaller numbers of cases and are, consequently, less stable), part-time work rates among men did not differ by more than three percentage points in any of the eight years, although the part-time rate for black men was generally higher than for white men. Although black

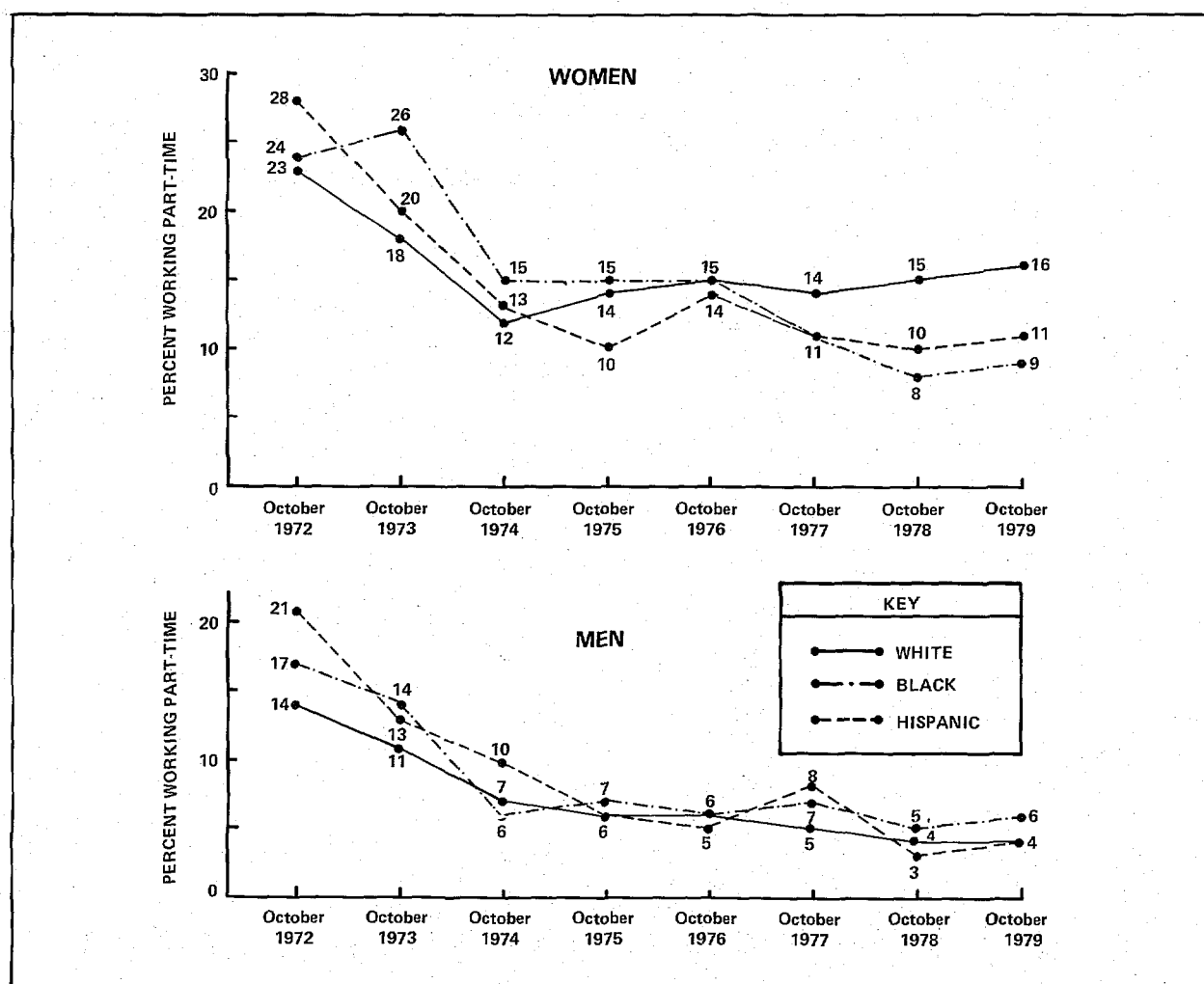


Figure 8. Part-time work rates among workers over time by sex and race/ethnicity.

women worked part-time at higher rates than white women in the 3 years following high school graduation, this situation has been reversed since 1977.

One would expect that many of the part-time workers also were engaged in some other activity (e.g., homemaker or part-time school attendance). Table 6 provides data on weekly hours worked at principal job in October 1979, for four work-status groups (work only, and work combined with homemaker or student status), which verify that assumption. Part-time work was most prevalent among workers who were also full-time students (not included in previous employment-related computations) and least prevalent among those who were not also filling student or homemaker roles. Since virtually all homemakers were female, the higher part-time work rate among women is understandable.

An interesting feature of Table 6 is the large percentage of individuals who worked more than full-time in their principal job (more than 44 hours per week, as defined here). Almost a third of those who were working exclusively (the group comprising the large majority of workers) were employed for more than 44 hours per week. The latest NLS data also indicate that 12 percent of those employed (excluding full-time students) were holding more than one job in October 1979 (racial/ethnic and sex differences were minimal). These results are relatively consistent with findings disseminated by the Bureau of Labor Statistics (BLS). Although not strictly comparable to NLS estimates, the BLS results indicated greater-than-full-time work rates of

27 percent and multiple-job-holding rates of 5 percent for all workers in 1979 (Taylor, et al., 1981).

### C. Earnings

Given the variation in educational and work experience since high school graduation, an examination of earnings that did not take such differences into account would be relatively uninformative. Consequently, earnings in 1979 were examined within four categories of work experience and four categories of educational experience; median earnings within the defined categories are presented in Table 7, considering both annualized earnings and hourly earnings. Although the annualized value represents a more familiar economic scale, the hourly value is considered more meaningful, since it accounts for differences in hours worked (see previous subsection) and avoids the assumption of 12-month continuous permanent employment.

Even though some of the groups defined by crossing educational attainment and work experience represent atypical combinations, the results in Table 7 indicate that hourly earnings increase with both greater education and greater work experience, which is to be expected. Within each educational attainment group, hourly earnings increase with greater work experience; similarly, within each work experience category, hourly earnings increase with greater education. A comparison of high school graduates with greatest work experience to college graduates with 2 to 4 years experience (the most they could obtain after college) shows a difference of only 45¢ in hourly earnings (or of slightly

Table 6.—Distributions of weekly hours worked in principal job for specified work status groups

Hours worked weekly	Work status			
	Work only	Work and homemaker <sup>a</sup>	Work and part-time student	Work and full-time student
Total	100%	100%	100%	100%
Less than 34 (part-time)	6	24	12	49
34 to 44 (full-time)	62	66	66	35
More than 44	32	10	22	16
Number of cases	10,194	2,714	1,065	694

<sup>a</sup>Persons in this group may also be classified in one of the student groups.

NOTE: Tabled percentage distributions over the categories of hours worked are defined for the group indicated in the column heading. Individuals classified as working but reporting 0 hours worked were excluded from the computations.

Table 7.—Median earnings in 1979 as a function of educational attainment and work experience

Earnings index	Years of full-time work <sup>a</sup>	Educational attainment			
		High school only	Vocational/technical training only	Some college <sup>b</sup>	Bachelor's degree or higher
Annualized earnings <sup>c</sup>	Less than 2 N=	\$ 4,990 ( 210)	\$5,200 ( 87)	\$ 8,320 ( 484)	\$11,440 (1,148)
	At least 2, but less than 4 N=	7,280 ( 300)	8,320 (195)	10,400 (1,095)	13,000 (2,428)
	At least 4, but less than 6 N=	9,670 ( 775)	11,700 (567)	11,960 (1,818)	—
	6 or more N=	12,480 (1,902)	13,000 (887)	13,000 (1,006)	—
Hourly earnings <sup>d</sup>	Less than 2 N=	3.40 ( 207)	3.40 ( 87)	4.65 ( 481)	5.62 (1,137)
	At least 2, but less than 4 N=	3.75 ( 300)	4.17 (193)	5.00 (1,092)	6.11 (2,421)
	At least 4, but less than 6 N=	4.65 ( 771)	5.23 (563)	5.55 (1,806)	—
	6 or more N=	5.66 (1,891)	5.96 (869)	6.00 (1,003)	—

<sup>a</sup>Determined from full-time work activity states for each of eight time points.

<sup>b</sup>Includes some individuals who have obtained a 2-year college degree as well as some who have had vocational/technical training in addition to college courses; does not include those who have attained a bachelor's degree.

<sup>c</sup>Determined as weekly earnings times 52 and rounded to the nearest multiple of \$10.

<sup>d</sup>Determined as weekly earnings divided by weekly hours worked.

NOTE: Dollar amounts presented within earnings index classification are the weighted median value within the group defined by work experience (row heading) and educational attainment (column heading). The number of cases (N) on which a median is based is given in parentheses below the dollar amount.

more than \$500 in annualized earnings). Of course, at that time (seven and a half years after high school), those with the longest work history in the college graduate group represented few of those preparing for professional positions requiring longer schooling (and typically representing higher earnings). Also, it is likely that the college graduates were in occupations allowing more room for subsequent advancement.

#### D. Employment Sector

Table 8 indicates the distribution of cohort members over the public and private work sectors in 1979. The preponderance of workers (over three-fourths) were in the private sector, about 17 percent were employed in the public sector, and 5 percent were self-employed or in a family business. Women

and black men were underrepresented among those who were self-employed or working in a family business. Additionally, within each racial/ethnic group, women were more likely than men to be employed in the public sector, and for each sex blacks and Hispanics were more likely to be so employed. These findings may reflect active recruitment practices within the public sector to comply with equal employment opportunity legislation.

Table 8 also indicates that educational attainment is related to the sector of employment. Those with college degrees were more than twice as likely as those with no college education to be employed in the public sector, but college graduates were underrepresented among the self-employed. The latter finding is not surprising, since those with college degrees had devoted time to their education

that otherwise might have been spent in establishing a business. Additionally, most of those in the

cohort who will be self-employed professionals (e.g., future lawyers and doctors) are still in school.

Table 8.—Distribution over employment sectors in 1979 for selected subgroups of those working

Employment sector	All Persons <sup>a</sup>	No college <sup>b</sup>	Some college <sup>c</sup>	Bachelor's degree or higher	Men			Women		
					White	Black	Hispanic <sup>d</sup>	White	Black	Hispanic <sup>d</sup>
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Self-employed or family business	5	5	6	3	7	1	7	3	1	2
Other private sector	78	83	78	70	79	71	75	78	67	72
Public sector	17	11	16	26	14	28	18	18	32	27
Number of cases	13,482	5,163	4,629	3,663	5,846	695	277	4,857	889	221

<sup>a</sup>Includes "American Indians," "Asian Americans," and "Other" racial/ethnic groups, as well as those not classifiable by sex, race/ethnicity or educational attainment (see Appendix D).

<sup>b</sup>Includes those who attended vocational, technical, business, or trade school only.

<sup>c</sup>Includes individuals who have obtained a 2-year college degree as well as individuals who have had vocational/technical training in addition to college courses; does not include those who have obtained a bachelor's degree.

<sup>d</sup>Includes individuals who defined themselves as either "Mexican American," "Puerto Rican," or "Latin American" (see Appendix D).

NOTE: Tabled percentage distributions over employment sector are defined for the group indicated in the column headings. Separate statistics for other racial/ethnic groups are not presented, since numbers of cases involved (either individually or collectively) are too small to provide stable estimates.

## V. MARRIAGE AND FAMILY

As the members of the class of 1972 reached their mid-twenties, completed postsecondary education, and entered the labor force in greater numbers, marriage and family formation considerations became of greater concern. Three facets of family life—marriage, parenthood, and family economics—are treated in this section.

### A. Marriage and Marital Disruption

By October 1979, 37 percent of the cohort had never been married, although about one-fifth of these planned to marry within a year. The remainder were, or had been, married; 52 percent were in their

first marriage, and 11 percent were remarried, divorced, separated, or widowed. The percentage of women who had married (70 percent) was greater than that for men (57 percent), reflecting a continuing tendency for women to marry at an earlier age than men. Also, more women had experienced marital disruption (14 percent were remarried, divorced, separated, or widowed) than had men (9 percent), probably as a function of having been married, on the average, for a longer time.

As would be anticipated within the time frame considered, marriage rate also was related to educational attainment; 76 percent of those who

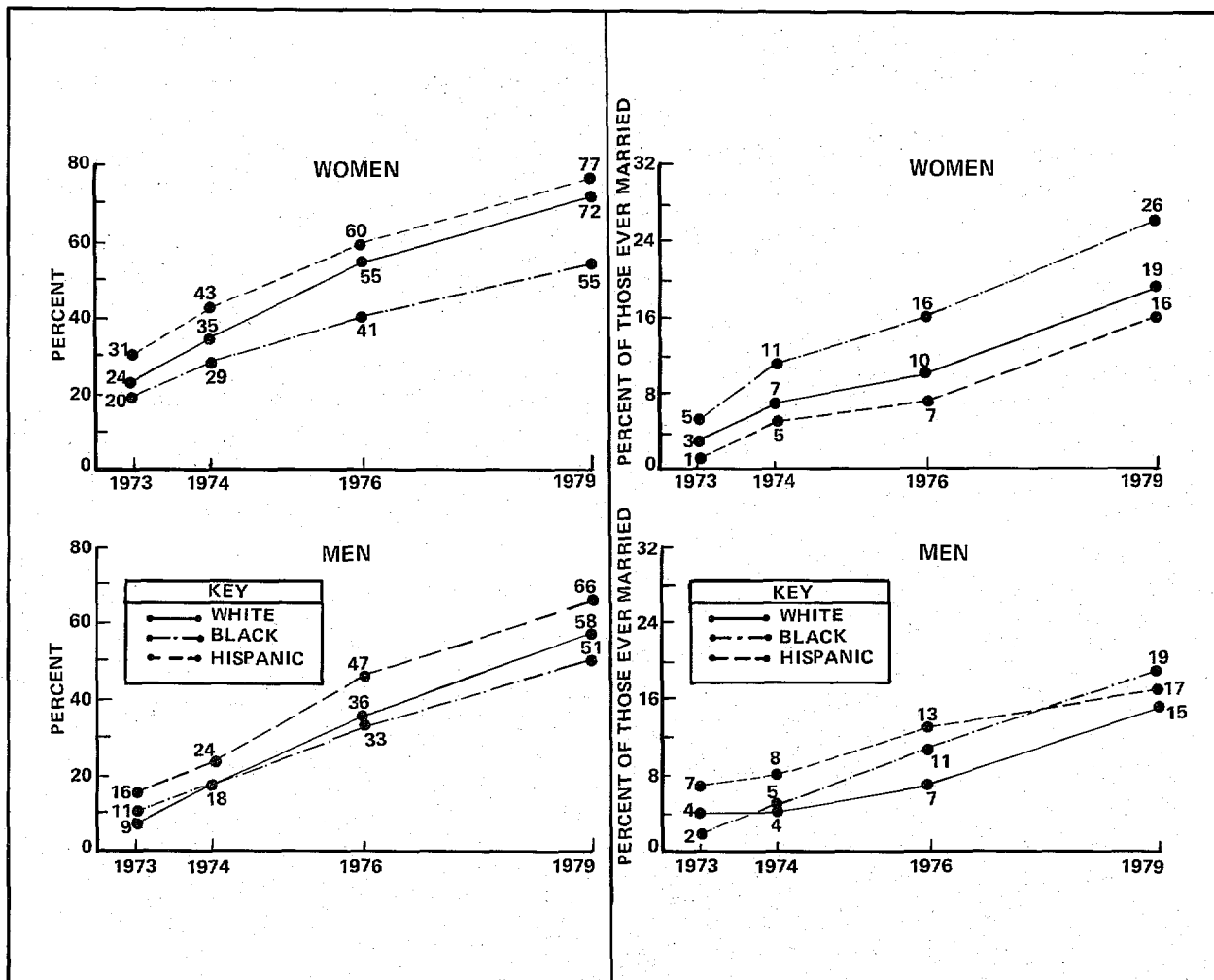


Figure 9. Percent of cohort ever married by sex and race/ethnicity.

Figure 10. Percent of those ever married who have been divorced, widowed, or separated by sex and race/ethnicity.



had only a high school education had been married, compared to 62 percent of those with some postsecondary education (including vocational/technical training) and 46 percent of those who had received bachelor's degrees. Although some of this difference may be attributable to underlying socioeconomic differences among the educational attainment groups (and associated socioeconomic marriage propensities), it is clear that pursuing postsecondary education typically postpones economic self-sufficiency, and this time factor is probably the principal reason for the observed differences in marriage rates. Of those ever married, marital disruption was relatively less frequent among those with higher educational attainment, perhaps reflecting the fact that the higher attainment groups had not been married as long.

Racial/ethnic differences for both men and women are provided in Figure 9 (see also Table B.7). Figure 10 (see also Table B.8) provides corre-

sponding percentages of marital disruption among the ever-married group. Marriage rates and marital disruption rates vary more by race/ethnicity for women than for men; racial/ethnic differences are also more consistent among women. Over all time points, Hispanic women show the highest marriage rates but the lowest rates of marital disruption. Black women were least likely to have married and most likely to have experienced disruption when married. Corresponding percentages for white women are intermediate but more closely parallel the rates for Hispanics.

Racial/ethnic marriage rate trends among men show a pattern similar to that for women but the rates for men are lower and confined to a smaller range, with white men more similar to black than to Hispanic men. Racial/ethnic differences in rates of marital disruption are not consistent over time for married men. While marital disruption rates among white men have remained slightly lower than those for Hispanic men over all time periods, the rates for

Table 9.—Actual and expected number of children in 1979 among selected groups of married individuals

Percentage distribution of number of children	All persons <sup>a</sup>	Men			Women		
		No college <sup>b</sup>	Some college <sup>c</sup>	Bachelor's degree or higher	No college <sup>b</sup>	Some college <sup>c</sup>	Bachelor's degree or higher
Total	100% (100%)	100% (100%)	100% (100%)	100% (100%)	100% (100%)	100% (100%)	100% (100%)
0	44 (7)	33 (7)	47 (7)	74 (9)	26 (6)	45 (9)	75 (8)
1	30 (10)	33 (11)	31 (10)	20 (4)	34 (12)	32 (12)	20 (8)
2	21 (55)	26 (55)	18 (55)	5 (56)	31 (53)	19 (54)	4 (56)
3 or more	5 (28)	8 (27)	4 (28)	1 (31)	9 (29)	4 (25)	1 (28)
Number of cases	11,323 (10,994)	2,127 (2,055)	1,743 (1,690)	1,083 (1,047)	3,039 (2,970)	2,192 (2,132)	1,126 (1,089)

<sup>a</sup>Includes those who attended only vocational/technical, business, or trade school.

<sup>b</sup>Includes individuals who have obtained a 2-year college degree as well as individuals who have had vocational/technical training in addition to college courses; does not include those who have attained a bachelor's degree.

<sup>c</sup>Includes those not classifiable as to sex or educational attainment.

NOTE: Percentages relating to expected number of children are included in parentheses, while those for current actual number of children are not. Tabled percentage distributions over number of children are defined for the group indicated in the column headings. Individuals who had never been married were excluded from these calculations.

black men have shifted from lowest to highest relative to the other two groups.

## B. Parenthood

Distributions of actual and expected number of children, for those who had been married by October 1979, are presented in Table 9. For the total cohort, 56 percent of those married by that time had become parents, but 93 percent expected eventually to have children, with 83 percent intending to have two or more children.

Table 9 also includes frequency distributions of number of children by sex and educational attainment. Distributions of actual number of children vary much more as a function of educational attainment than of sex. Married persons with higher educational attainment have become parents at much lower rates (only about one in four of those who received college degrees as compared to over two-thirds of those who did not go to college). Since those in the higher attainment groups presumably had been married for less time, the finding is not surprising. Distributions of expected eventual family size, on the other hand, are quite similar for the groups considered. While plans for eventual family size are subject to change, the cohort members are

still young enough to realize their current expectations.

## C. Family Economics

Three indices of family economics (the percent owning a home, the percent with a working spouse, and the percent receiving public assistance) are provided in Table 10, for those who were married in October 1979; these indices are provided for the total group and separately for men and women and for three educational attainment groups. For the total group, well over half owned a home, about three of four had a working spouse, and almost one in ten was receiving some form of public assistance. Differences exist, however, between men and women and among educational attainment groups.

Among married cohort members, home ownership is inversely related to educational attainment, and generally greater for women than men. The differences among the educational attainment groups are probably attributable to the shorter period of time during which those with greater educational attainment had been both married and working rather than to family income differences among the groups (see Table 7). The male-female differences probably also reflect length of marriage plus the

Table 10.—Family economic indicators of married individuals as a function of sex and educational attainment

Indicator	All persons <sup>a</sup>	Men			Women		
		No college <sup>b</sup>	Some college <sup>c</sup>	Bachelor's degree or higher	No college <sup>b</sup>	Some college <sup>c</sup>	Bachelor's degree or higher
Percent owning home N=	57% (9,656)	60% (1,810)	53% (1,485)	44% (1,009)	64% (2,536)	59% (1,774)	55% (1,035)
Percent with working spouse N=	76 (9,688)	53 (1,814)	64 (1,491)	73 (1,010)	90 (2,547)	88 (1,781)	88 (1,037)
Percent receiving public assistance N=	9 (8,144)	13 (1,525)	9 (1,256)	3 ( 834)	9 (2,141)	7 (1,520)	6 ( 865)

<sup>a</sup>Includes those not classifiable as to sex or educational attainment.

<sup>b</sup>Includes those who attended only vocational/technical, business, or trade school.

<sup>c</sup>Includes individuals who have obtained a 2-year college degree as well as individuals who have had vocational/technical training in addition to college courses; does not include those who have attained a bachelor's degree.

NOTE: Tabled percentages are defined for married (in October 1979) cohort members in the groups identified by the column heading. The number of cases (N) on which a percentage is based is given in parentheses. Individuals receiving more than half of their support from parents were excluded from these analyses.

fact that women are more likely to have an older spouse (and, thus, one who has been working longer).

Male-female differences in the percent having a working spouse are quite large, and only among married men are major differences observed among the educational attainment groups. The traditional role of the man as a "breadwinner" is reflected in the fact that about 90 percent of all married women had a working spouse. The finding that at least one married woman in ten had a nonworking spouse may indicate a changing role of women in society or may reflect only persistence of conventional roles such as supporting a nonworking student husband.

Although at least half of the married men in every educational attainment group had wives who were working, the likelihood of having a working

spouse increases with educational attainment, also suggesting a changing societal role for women. The finding also indicates that, at the family level, income differences as a function of husband's educational attainment are greater than individual earning differences reported previously, although several factors (e.g., amount of spouse's earnings and differences in subgroups considered) preclude any direct combinations of the two results.

Only 3 percent of the married men with a college degree were receiving public assistance; however, the rate was three times greater among those who had attended but not completed college and over four times greater among those who had not attended college. For married women the same directional trend is observed, but differences are considerably less marked.

## VI. OTHER EXPERIENCES AND OPINIONS

### A. Military Service

The high school class of 1972 was the transition graduating class between active military conscription and the all-volunteer service. While it is possible that some of the men in the cohort were conscripted prior to the last call-up of 31 December 1972, the influence of the national draft should have impacted on the military service of this cohort less than on previous graduating classes but more than on subsequent classes.

As indicated in Section II, the percent of the cohort on active duty in the military forces declined after 1974 to less than 3 percent in October 1979. This trend is shown in greater detail, by year, in Table 11, which also shows that the percentages on active duty increased from high school graduation through 1974. The percentage of women in the

cohort on active duty has remained quite stable over time and among ethnic groups, varying by no more than one and a half percentage points. Among men, however, clear trends in time as well as racial/ethnic differences are more evident. The increase in active duty percentages among men through 1974, at which time almost 10 percent of the cohort men were in the military, is not surprising and more than likely represents both delayed service enlistments and increasing secondary choices of military service after other options of work and/or education had been explored. The decrease since 1975 reflects the end of standard periods of first enlistments. Racial/ethnic differences in the October following high school graduation were minimal; however, black men have been on active duty

Table 11.—Percent of cohort on active duty in military service over time as a function of sex and race/ethnicity

Classification	Year (and approximate age)							
	1972 (18)	1973 (19)	1974 (20)	1975 (21)	1976 (22)	1977 (23)	1978 (24)	1979 (25)
All persons <sup>a</sup>	2	4	5	5	4	3	3	2
N=	(21,155)	(21,109)	(20,858)	(20,092)	(20,092)	(18,630)	(18,630)	(18,630)
White men	4	7	8	8	6	5	5	4
N=	( 8,080)	( 8,054)	( 8,037)	( 7,703)	( 7,703)	( 7,180)	( 7,180)	( 7,180)
Black men	6	13	15	15	12	11	9	8
N=	( 1,222)	( 1,214)	( 1,218)	( 1,126)	( 1,126)	( 968)	( 968)	( 968)
Hispanic <sup>b</sup> men	5	7	10	8	6	4	4	3
N=	( 451)	( 450)	( 450)	( 419)	( 419)	( 370)	( 370)	( 370)
White women	0*	1	1	1	1	1	1	1
N=	( 8,164)	( 8,161)	( 8,052)	( 7,760)	( 7,760)	( 7,379)	( 7,379)	( 7,379)
Black women	0*	0*	1	1	1	1	1	1
N=	( 1,652)	( 1,649)	( 1,640)	( 1,556)	( 1,556)	( 1,366)	( 1,366)	( 1,366)
Hispanic <sup>b</sup> women	0*	0*	0*	1	1	1	1	1
N=	( 454)	( 454)	( 451)	( 413)	( 413)	( 358)	( 358)	( 358)

\*Represents a positive percentage less than .5.

<sup>a</sup>Includes American Indians, Asian Americans, and other racial/ethnic groups, as well as persons not classifiable as to sex or racial/ethnic group (see Appendix D).

<sup>b</sup>This group is composed of individuals who defined themselves as either "Mexican American," "Puerto Rican," or "Latin American" (see Appendix D).

NOTE: The number of cases (N) on which each percentage is based is given in parentheses. Separate statistics for other racial/ethnic groups are not presented, since numbers of cases involved (either individually or collectively) are too small to provide stable estimates.

in the military at about twice the rates of whites and Hispanics since 1973.

The relationship of actual military service to plans for service while still in high school is shown in Table 12 for all cohort men by race/ethnicity. (Due to the very small number of cases among women in some of the expectation groups, the corresponding statistics for women would be relatively unstable and are not reported.) About one male cohort member in seven had been on active duty in one of the services during the seven and one-half years following high school graduation; the percentage was somewhat higher among the minority population. The planned to actual service relationship is in the expected direction; however, there is perhaps less correspondence than might be expected. Only about 60 percent of the cohort men who reported "definite" plans for military service had actually

Table 12.—Percent of cohort men with any military service as a function of 1972 plans and race/ethnicity

Plans for military service in 1972 <sup>a</sup>	All men	White Majority	All Minorities <sup>b</sup>
All men N=	14% (6,078)	14% (4,975)	18% (1,103)
Definite plans for service N=	59 ( 440)	58 ( 344)	61 ( 96)
Would consider service N=	21 (1,261)	20 (1,048)	29 ( 213)
Would not consider service N=	5 (1,185)	5 (1,035)	8 ( 150)
No plans or "not applicable" N=	9 (3,192)	8 (2,548)	11 ( 644)

<sup>a</sup>As determined from Item 30 of Base-Year Student Questionnaire.

<sup>b</sup>Includes all individuals not indicating "white" as racial/ethnic characteristic (see appendix D).

NOTE: Cell entries represent the percent who have ever served on active duty within the group defined by row and column headings; the number of cases (N) within each cell is provided in parentheses. Due to low base rates among women for military service plan responses other than "not applicable," cell sizes are insufficient for stable estimates; consequently, results for women are not reported. For similar reasons all minorities have been collapsed into a single reporting category.

served on active duty since high school graduation; while some of those who did not fulfill their definite plans could have failed to meet enlistment or training requirements, it is unlikely that this accounted for much of the discrepancy. Conversely, 1 in 20 entered military service among those who reported they would not consider it. The major racial/ethnic difference is that minorities (principally blacks, see above) entered military service at slightly greater rates, regardless of base-year plans.

## B. Political Participation

Political activity among young adults since World War II has ranged from relative apathy in the fifties to the activism of the sixties. To determine some flavor of the political activity of the high school class of 1972, three indices of political participation (the percent registered to vote, the percent of those registered who have exercised their voting privilege, and the percent reporting other active political participation) are presented in Table 13.

More than two-thirds of the total cohort were registered to vote in 1979, and about nine in ten of these had voted at some time between November 1976 and October 1979. About one in six reported other active political participation such as talking about public problems to community leaders or elected officials, contributing time or money to or soliciting votes for a candidate, attending political meetings, or holding an elected political or government position (see Appendix D).

Male-female differences in the political participation indices are relatively minor except among Hispanics, for whom smaller sample sizes lead to less stable measures. Racial/ethnic differences are more pronounced. Blacks and whites were registered at greater rates than Hispanics, and registered whites had voted at higher rates than either blacks or Hispanics. On the other hand, a greater percentage of blacks reported other active political participation than whites or Hispanics; the black-Hispanic difference is much less pronounced among men.

## C. Life Goals

The importance of several personal goals was assessed while members of the cohort were still high school seniors and again seven and a half years after high school. With the additional exposure to both the work environment and to postsecondary education, it might be expected that the importance of some such goals would change over time. To

Table 13.—Political participation indices as a function of sex and race/ethnicity

Political participation index	All Persons <sup>a</sup>	Men			Women		
		White	Black	Hispanic <sup>b</sup>	White	Black	Hispanic <sup>b</sup>
Percent registered to vote in 1979 N=	69% (17,488)	69% (6,753)	70% (851)	58% (331)	70% (7,037)	75% (1,246)	62% (333)
Percent of those registered who have voted since 1976 N=	89 (12,208)	91 (4,733)	81 (599)	82 (196)	90 (4,953)	82 (940)	75 (207)
Percent reporting other active political participation since 1976 <sup>c</sup> N=	15 (17,496)	16 (6,753)	25 (856)	21 (333)	13 (7,041)	21 (1,249)	12 (331)

<sup>a</sup>Includes American Indians, Asian Americans and other racial/ethnic groups, as well as persons not classifiable as to sex or race/ethnicity (see Appendix D).

<sup>b</sup>This group is composed of individuals who defined themselves as either "Mexican American," "Puerto Rican," or "Latin American" (see Appendix D).

<sup>c</sup>Other active political participation was defined from Item 199 of the Fourth Follow-Up Questionnaire to include any of the activities from "discussing public problems with community leaders" to "holding an office in a political party or an elected government job" (see Appendix D for item description).

NOTE: Cell percentages are defined for the particular index and the group specified in the column heading; the number of cases (N) on which the percentage is based is also provided in parentheses. Separate statistics for other racial/ethnic groups are not presented, since numbers of cases involved (either individually or collectively) are too small to provide stable estimates.

shed light on that possibility, the percentages of the cohort rating each of nine goals as very important are provided in Table 14 for 1972 and for 1979.

For the total cohort, there were only minor changes in the ranking of the nine goals (ranked on the percentage rating the goal as very important). In general, the change from 1972 to 1979 was that of reduced importance of all goals; the largest difference is associated with the goal of working to correct social and economic inequities, which was considered very important by only about half as many in 1979 as in 1972. Exceptions to this general trend are the increased importance of two family-related goals (second- and eighth-listed in Table 14). It is not possible, of course, to ascertain whether the overall reduced importance of the goals reflects a shift in values or a better perception of reality (e.g., failing to consider as important something that is

either already in one's grasp, beyond one's grasp, or beyond one's ability to control).

The importance in 1972 and 1979 of goals for different educational attainment groups and for men and women is also presented in Table 14. An interesting interaction of educational attainment and sex is suggested in the changes in importance over seven and a half years, although possible changes in importance of a goal are limited by the initial importance. Among men, changes were typically greatest among those who did not attend college (exceptions are "finding steady work," "giving children a better opportunity," and "correcting social inequalities"). Among women, however, changes were typically least among those who did not attend college (exceptions are "success in one's work," "finding steady work," and "living near parents and relatives").

Table 14.—Importance of specified life goals in 1972 and 1979 as a function of sex and educational attainment

Life goal	Time period	All persons <sup>a</sup>	Men			Women		
			No college <sup>b</sup>	Some college <sup>c</sup>	Bachelor's degree or higher	No college <sup>b</sup>	Some college <sup>c</sup>	Bachelor's degree or higher
Being successful in my line of work	1972	84%	85%	85%	88%	80%	84%	84%
	1979	75%	77%	80%	83%	62%	72%	80%
Finding the right person to marry and having a happy family life	1972	82	78	79	80	88	85	82
	1979	87	88	86	85	90	85	86
Having lots of money	1972	17	29	24	21	10	10	8
	1979	16	21	20	19	10	13	11
Having strong friendships	1972	79	78	81	83	73	79	84
	1979	74	70	75	79	69	74	82
Being able to find steady work	1972	77	84	81	78	78	73	63
	1979	69	82	75	71	58	61	67
Being a leader in my community	1972	11	13	15	15	6	8	11
	1979	6	6	9	11	4	4	6
Being able to give my children better opportunities than I've had	1972	66	71	67	55	74	66	54
	1979	56	67	58	42	67	55	35
Living close to parents and relatives	1972	8	9	7	5	9	8	7
	1979	12	11	8	7	16	14	12
Working to correct social and economic inequalities	1972	27	18	25	24	25	33	38
	1979	14	10	14	14	12	15	18
Number of cases		12,627	2,108	2,223	1,690	2,623	2,307	1,660

<sup>a</sup>Includes those not classifiable as to sex or educational attainment.

<sup>b</sup>Includes those who attended only vocational/technical, business, or trade school.

<sup>c</sup>Includes those who have obtained a 2-year college degree as well as those who have had vocational/technical training in addition to college courses; does not include those who have attained a bachelor's degree.

NOTE: Tabled percentages are defined for the groups identified by the column heading, who responded to both the base-year and first follow-up surveys, and represent the relative numbers in those groups who reported each associated life goal as "very important."

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## Appendix A

### Limitations on Use of Data

The statistics provided in this capsule report are estimates derived from a sample survey. Two types of errors, sampling and nonsampling, are possible in such estimates, and the accuracy of a survey result is determined by the joint effects of these errors. Nonsampling errors can be attributed to many sources—inability to obtain information about all cases in the sample, definitional difficulties, differences in the interpretation of questions, respondents' inability or unwillingness to provide correct information, mistakes in recording or coding data, and other errors of collection, response, processing, coverage, and estimation for missing data. Nonsampling errors also occur in complete censuses.

Since the statistics are based on a sample, they may be expected to vary from the results that would have been obtained if a complete population census had been taken, using the same survey forms, procedures, and instructions. This difference between a sample statistic and the population value that it estimates occurs because different samples (of all the potential samples that could be drawn) give different population estimates. Variations in the estimates that would be expected among different samples, all drawn according to the same sampling scheme, are measured by the standard error.

In the following sections of this appendix, specific discussions are addressed to sampling and nonsampling errors which directly affect interpretation of the results in this report. Tables are provided which allow the estimation of standard errors for percentages, and which locate possible sources of nonsampling error (see also Appendix C).

#### A. Sampling Errors

Approximate standard errors for various percentages provided in this report can be estimated from Table A.1. This table, which gives approximate standard errors as a joint function of the estimated percentage and the sample size for the percentage base (i.e., denominator), was prepared by extrapolating from studies conducted for the prior three follow-up surveys. The actual standard error estimate, for a percentage from the complex stratified multistage NLS sample, is inflated over the standard error estimate that would have obtained had a simple random sample of students been selected. Results from the prior studies suggest that a straightforward multiplicative adjustment of the

simple, random sampling standard error equation adequately approximates the actual standard error estimate for a percentage. These three adjustment factors were found to be  $\sqrt{1.39}$ ,  $\sqrt{1.35}$  and  $\sqrt{1.44}$  for the First, Second, and Third Follow-Up Surveys of the NLS, respectively. To be conservative, the largest of these three adjustment factors was used in producing Table A.1. Thus, an entry in the table is given by

$$\sqrt{1.44} pq/n,$$

where  $p$  is the estimated percentage,  $q = 100 - p$ , and  $n$  is the sample size of the base of the percentage. It should be noted, however, that the adjustment factors themselves were based on averages of many such values calculated for former follow-up questionnaire items.

The sample percentage and an estimate of its standard error permit the construction of interval estimates such that with a prescribed confidence, the interval includes the average result of all possible samples selected and surveyed under essentially the same conditions. Then, given a sample percentage and its estimated standard error:

- Approximately 68 percent of the intervals from one standard error below the estimate to one standard error above the estimate will include the average value of all possible samples.
- Approximately 95 percent of the intervals from two standard errors below the estimate to two standard errors above the estimate will include the average value of all possible samples.
- Almost all intervals from three standard errors below the sample estimate to three standard errors above the sample estimate will include the average value of all possible samples.

These approximations depend upon the closeness of the actual distribution of the statistics to the normal distribution; however, the normal approximation of sample percentages typically is satisfactory except for small samples and extreme percentage values.

Confidence intervals may also be constructed for differences in percentages. Given the standard error for a percentage in group A,  $\sigma_{(p_A)}$ , and that for an analogous percentage in group B,  $\sigma_{(p_B)}$ , then a

Table A.1.—Generalized standard errors of estimated percentages

Sample size for base of percentage	Estimated percentage										
	1 or 99	5 or 95	10 or 90	15 or 85	20 or 80	25 or 75	30 or 70	35 or 65	40 or 60	45 or 55	50
100	1.19	2.62	3.60	4.28	4.80	5.20	5.50	5.72	5.88	5.97	6.00
250	0.76	1.65	2.28	2.71	3.04	3.29	3.48	3.62	3.72	3.78	3.79
500	0.53	1.17	1.61	1.92	2.15	2.32	2.46	2.56	2.63	2.67	2.68
750	0.44	0.96	1.31	1.56	1.75	1.90	2.01	2.09	2.15	2.18	2.19
1,000	0.38	0.83	1.14	1.36	1.52	1.64	1.74	1.81	1.86	1.89	1.90
1,500	0.31	0.68	0.93	1.11	1.24	1.34	1.42	1.48	1.52	1.54	1.55
2,000	0.27	0.58	0.81	0.96	1.07	1.16	1.23	1.28	1.31	1.33	1.34
2,500	0.24	0.52	0.72	0.86	0.96	1.04	1.10	1.14	1.18	1.19	1.20
3,000	0.22	0.48	0.66	0.78	0.88	0.95	1.00	1.05	1.07	1.09	1.10
4,000	0.19	0.41	0.57	0.68	0.76	0.82	0.87	0.91	0.93	0.94	0.95
5,000	0.17	0.37	0.51	0.61	0.68	0.73	0.78	0.81	0.83	0.84	0.85
6,000	0.15	0.34	0.46	0.55	0.62	0.67	0.71	0.74	0.76	0.77	0.77
8,000	0.13	0.29	0.40	0.48	0.54	0.58	0.61	0.64	0.66	0.67	0.67
10,000	0.12	0.26	0.36	0.43	0.48	0.52	0.55	0.57	0.59	0.60	0.60
12,000	0.11	0.24	0.33	0.39	0.44	0.47	0.50	0.52	0.54	0.55	0.55
16,000	0.09	0.21	0.28	0.34	0.38	0.41	0.43	0.45	0.46	0.47	0.47
20,000	0.08	0.18	0.25	0.30	0.34	0.37	0.39	0.40	0.42	0.42	0.42

NOTE: The generalized design effect used in computing these values was extrapolated from First, Second, and Third Follow-Up studies.

typically conservative standard error for the difference,  $p_A - p_B$ , is given by

$$\sqrt{\sigma_{(p_A - p_B)}} = \{\sigma_{(p_A)}\}^2 + \{\sigma_{(p_B)}\}^2$$

if the 95 percent confidence interval (i.e., the interval defined by  $(p_A - p_B) \pm 2\sigma_{(p_A - p_B)}$ ) does not include zero, then the difference may be taken as a real one at the .05 level of statistical significance.

## B. Nonsampling Errors

Nonsampling errors that may be directly addressed are instrument and item nonresponse. Table A.2 indicates the extent of instrument and item nonresponse, and may be used to determine potential sources of bias due to nonresponse. Material in Appendix C may also be used along with Table A.2 to assess the direction of bias.

The column in Table A.2 labeled "Total available after weight" specifies the number of persons

responding to all survey instruments from which variables in a particular analysis were computed. Thus, the first column details the degree of instrument nonresponse within a specified sample of 23,451<sup>1</sup> individuals. In an attempt to correct for possible instrument nonresponse biases, adjusted weights were used in calculations of all sample statistics. The general adjustment procedure used was a weighting class approach, which distributes the weights of nonrespondents to respondents who are most like them (i.e., in the same weighting class). The adjustment involves partitioning the entire student sample (respondents and nonrespondents) into weighting classes (homogeneous groups with respect to survey classification variables), and performing the adjustments within weighting class. Adjusted weights for nonrespondents are set to zero

<sup>1</sup>This value represents the maximum number of students ever identified as in the NLS sample, and may be slightly inflated, since some sample members have been removed due to death, incapacitation, or a *posteriori* determination of sample ineligibility.

and their unadjusted weights are distributed to respondents proportionally to the respondents' unadjusted weights. Differential response rates for students in different weighting classes are reflected in the adjustment, and the weight total within each weighting class (and thus for the sample as a whole) is maintained. A detailed discussion of the specific procedures used and a complete specification of available weights is provided elsewhere (Riccobono, *et al.*, 1981).

The remaining columns of Table A.2 address various forms of item nonresponse or indeterminacy. The column labeled "Total available after exclusion" gives the sample size after the inclusion rules specified in Appendix C were applied. The reduction of effective sample size through exclusion does not necessarily represent the introduction of error, since many analyses were appropriate only to specific subgroups (e.g., the subgroup of individuals who had attended college). A potential source of error does exist, however, when individuals were excluded due to indeterminacy of the exclusion variable (persons were typically included in the analysis only if there was a positive indication that they should be included). The column labeled "Number excluded because of indeterminacy" gives the number of persons who were excluded from the analysis because of missing data on the variables used for determining inclusion. A source of potential bias exists if the number excluded because of indeterminacy was large, and if persons who would have been included (had it been possible to recover their missing data) differed significantly from persons included in the analysis. In general, it is not possible to determine the extent to which bias exists or the direction of possible bias; nonetheless, caution should be exercised in interpreting analysis with large numbers excluded because of indeterminacy (see also discussions of potential bias for specific analyses in Appendix C).

The column labeled "Total after classification variable" gives the number of persons, following

appropriate weighting and inclusion rules, who have a positive indication of being in a category defined by the classification variables specific to a given analysis (for analysis-specific details, see Appendix C). The reduction from column two to column four is due to both missing data and selection of specific subgroups. For example, most analyses that used classification variables of sex and race/ethnicity included only persons for whom both sex and race/ethnicity were determinate; however, among those classifiable by race/ethnicity, the analyses also included only persons classified as white, Hispanic or black, since the number of cases in other racial/ethnic groups was typically too small to provide stable estimates. Thus, for example, American Indians would not be included "after the classification variable," even if the classification variable was nonmissing. Although the same cautions about bias due to exclusion because of missing data apply, the primary use of column four is in specifying exactly how many persons were "eligible" for analysis.

The final column in Table A.2, "Total after analysis variable," provides the number of persons, after application of appropriate weighting, inclusion rules, and classification variables, who have non-missing data for the analysis variable. A significant discrepancy between the number in this column and that in the column preceding it signals the potential for bias due to missing data; however, due to the variable construction process, equal numbers of observations in columns four and five do not necessarily mean there is no bias. The variable construction process, as specified in Appendix C, often results in the creation of a binary indicator which is positive if any of a number of variables which define the indicator are positive, and which is otherwise negative. Such construction rules result in a biased analysis variable which is never missing by definition. The expected direction of potential bias is specified in Appendix C.

Table A.2.—Indices of potential sources of nonsampling error

Analysis	Total available after weight	Total available after exclusion	Number excluded because of indeterminacy	Total after classification variable	Total after analysis variable
Table 1	18,630	18,630	0	18,484	17,607
Table 2	18,630	18,630	0	18,484	17,571
Table 3 (owe money)	17,770	10,898	48	10,763	10,396
(indebtedness)	17,770	2,467	519	2,459	2,459
(paying loan)	17,770	1,659	238	1,642	1,583
(difficulty meeting payments)	17,770	1,659	238	1,642	1,615
(monthly payment)	17,770	1,319	298	1,306	1,306
Table 4 (by sex)	18,630	4,789	50	4,789	4,611
(by receipt of financial aid)	17,366	4,615	45	4,615	4,445
Table 5	18,245	4,745	46	4,570*	4,570*
Table 6 (work only) <sup>a</sup>	17,770	14,563	615	10,303	10,194
(work and student full-time) <sup>a</sup>	17,770	14,563	615	702	694
(work and student part-time) <sup>a</sup>	17,770	14,563	615	1,071	1,065
(work and homemaker) <sup>a</sup>	17,770	14,563	615	2,725	2,714
Table 7 (annual)	17,366	13,319	870	13,292	12,902
(hourly)	17,366	13,319	870	13,292	12,821
Table 8 (educational attainment)	18,630	14,251	960	14,222	13,455
(sex and race/ethnicity)	18,630	14,251	960	13,506	12,785
Table 9 (frequency of actual children)	17,770	11,349	60	11,334	11,310
(frequency expected children)	17,770	11,349	60	11,334	10,983
Table 10 (home ownership)	17,770	9,688	207	9,688	9,649
(spouse working)	17,770	9,688	207	9,688	9,688
(public assistance)	17,770	9,688	207	9,688	8,141
Table 11 (1977-1979)	18,630	18,630	0	17,621	17,621
(1975-1976)	20,092	20,092	0	18,977	18,977
(1974)	20,872	20,872	0	19,858	19,848
(1973)	21,350	21,350	0	20,201	19,982
(1972)	21,350	21,350	0	20,201	20,023
Table 12	12,980	12,980	0	12,732	12,732
Table 13 (registered)	17,770	17,770	0	16,820	16,551
(voting)	17,770	12,250	282	11,667	11,628
(other active participation)	17,770	17,770	0	16,820	16,563
Table 14	13,618	12,627	991**	12,611	12,611
Figure 1 (1977-1979)	18,630	18,630	0	17,621	17,621
(1975-1976)	20,092	20,092	0	18,977	18,977
(1974)	20,872	20,872	0	19,858	19,858
(1972-1973)	21,350	21,350	0	20,204	20,204
Figure 2 <sup>b</sup>	—	—	—	—	—
Figure 3	13,847	13,847	0	13,847	10,416
Figure 4 (1978-1979)	18,630	938	549	921	921
(1977-1978)	18,630	1,359	612	1,321	1,321
(1976-1977)	18,245	2,585	61	2,370	2,370
(1975-1976)	20,092	5,514	43	5,254	5,254
(1974-1975)	19,611	6,171	38	5,728	5,728
(1973-1974)	20,194	6,870	290	5,873	5,873
(1972-1973)	21,350	8,732	295	6,908	6,908

(see footnotes at end of table)

(continued)

Table A.2.—Indices of potential sources of nonsampling error—Continued

Analysis	Total available after weight	Total available after exclusion	Number excluded because of indeterminacy	Total after classification variable	Total after analysis variable
Figure 5 (1978-1979)	18,630	518	549	510	510
(1977-1978)	18,630	656	612	649	649
(1976-1977)	18,245	1,129	61	1,107	1,107
(1975-1976)	20,092	2,652	43	2,561	2,561
(1974-1975)	19,611	2,745	38	2,642	2,642
(1973-1974)	20,194	2,556	290	2,392	2,392
(1972-1973)	21,350	3,441	295	3,049	3,049
Figure 6 (1977-1979)	17,770	18,630	0	16,820	16,820
(1975-1976)	19,641	20,092	0	18,555	18,555
(1974)	20,872	20,872	0	19,858	19,858
(1972-1973)	21,350	21,350	0	20,201	20,201
Figure 7 (1979)	17,770	14,551	0	13,803	13,803
(1978)	17,770	14,352	0	13,619	13,619
(1977)	17,770	13,911	0	13,196	13,196
(1976)	19,641	14,357	0	13,586	13,586
(1975)	19,641	11,995	0	11,304	11,304
(1974)	20,872	12,037	0	11,224	11,224
(1973)	21,350	11,655	0	10,995	10,995
(1972)	21,350	9,038	0	8,490	8,490
Figure 8 (1979)	17,770	13,901	0	13,185	13,185
(1978)	17,770	13,830	0	13,129	13,129
(1977)	17,770	13,282	0	12,597	12,597
(1976)	19,641	13,121	0	12,441	12,441
(1975)	19,641	11,111	0	10,479	10,479
(1974)	20,872	10,989	0	10,478	10,478
(1973)	21,350	10,565	0	9,977	9,977
(1972)	21,350	8,130	0	7,638	7,638
Figure 9 (1979)	18,630	18,630	0	18,484	17,555
(1976)	20,092	20,092	0	19,921	18,883
(1974)	20,872	20,872	0	20,852	18,578
(1973)	21,350	21,350	0	21,226	19,800
Figure 10 (1979)	18,630	11,876	66	11,782	11,782
(1976)	20,092	9,093	103	9,007	9,007
(1974)	20,872	5,302	1,344	5,295	5,295
(1973)	21,350	3,419	2,403	3,400	3,400

<sup>a</sup>For these analyses, "total after classification" may be viewed as a second exclusion. The first inclusion rule is "only those working." The classification rules (only work, work and full-time student, etc.) define an additional inclusion.

<sup>b</sup>This analysis was performed by NCES, and the counts within various data availability categories are not available.

\*Although persons with a double major in physical and biological sciences were counted twice in Table 5, they are counted only once for current purposes.

\*\*The exclusion rule is based upon indeterminacy of the analysis variables.

## Appendix B

### Supporting Data for Graphic Presentations

To facilitate readability, graphic presentations in the Capsule Report typically do not contain information on the number of cases contributing to the statistics reported (the single exception is Figure 3). For all but one of the remaining figures, that information is provided in the eight tables of this appendix,

to allow computation of generalized standard errors by using the tables and equations provided in Appendix A. The data for Figure 2 were provided by NCES, and information on numbers of cases is not available.

Table B.1.—Numbers of cases on which data points reported in Figure 1 are based

Racial/ethnic group	Time point			
	1972-73	1974	1975-76	1977-79
White	16,376	16,095	15,463	14,559
Black	2,913	2,860	2,682	2,334
Hispanic	915	903	832	728

Table B.2.—Numbers of cases on which data points reported in Figure 4 are based

Tuition paid	Academic year						
	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78	1978-79
Low tuition (\$700 or less)	4,502	3,568	3,006	2,722	1,156	657	452
High tuition (more than \$700)	2,406	2,305	2,722	2,532	1,214	667	469

Table B.3.—Numbers of cases on which data points reported in Figure 5 are based

Tuition paid	Academic year						
	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78	1978-79
Low tuition (\$700 or less)	1,731	1,268	1,167	1,175	441	262	199
High tuition (more than \$700)	1,318	1,124	1,475	1,386	666	387	311
All persons	3,441	2,556	2,745	2,652	1,129	656	518

Table B.4.—Numbers of cases on which data points reported in Figure 6 are based

Sex	Racial/ethnic group	Time point			
		1972-73	1974	1975-76	1977-79
Male	White	8,188	8,042	7,517	6,851
Male	Black	1,248	1,218	1,083	884
Male	Hispanic	456	451	408	340
Female	White	8,185	8,053	7,636	7,128
Female	Black	1,665	1,642	1,511	1,278
Female	Hispanic	459	452	400	339

Table B.5.—Numbers of cases on which data points reported in Figure 7 are based

Sex	Racial/ethnic group	Time point							
		1972	1973	1974	1975	1976	1977	1978	1979
Male	White	3,533	4,473	4,843	4,765	5,752	5,726	6,004	6,161
Male	Black	654	831	860	801	858	749	791	786
Male	Hispanic	229	300	320	308	328	290	289	293
Female	White	3,220	4,216	4,309	4,248	5,290	5,185	5,234	5,254
Female	Black	648	914	865	923	1,088	1,005	1,046	1,059
Female	Hispanic	206	261	273	259	270	241	255	250

**Table B.6.—Numbers of cases on which data points reported in Figure 8 are based**

Sex	Racial/ethnic group	Time point							
		1972	1973	1974	1975	1976	1977	1978	1979
Male	White	3,353	4,289	4,535	4,505	5,371	5,543	5,880	5,994
Male	Black	568	751	748	728	786	709	752	743
Male	Hispanic	203	274	287	293	301	282	278	281
Female	White	2,899	3,787	3,972	3,956	4,848	4,939	5,049	4,980
Female	Black	454	657	691	758	893	899	926	955
Female	Hispanic	161	219	245	239	242	225	244	232

**Table B.7.—Numbers of cases on which data points reported in Figure 9 are based**

Sex	Racial/ethnic group	Time point			
		1973	1974	1976	1979
Male	White	6,774	7,448	7,667	7,159
Male	Black	962	1,099	1,109	955
Male	Hispanic	373	419	417	366
Female	White	6,980	7,649	7,732	7,364
Female	Black	1,326	1,541	1,546	1,355
Female	Hispanic	385	422	412	357



Table B.8.—Numbers of cases on which data points reported in Figure 10 are based

Sex	Racial/ethnic group	Time point			
		1973	1974	1976	1979
Male	White	774	1,414	2,895	4,227
Male	Black	118	194	379	502
Male	Hispanic	65	103	192	235
Female	White	1,874	2,758	4,295	5,306
Female	Black	292	428	614	740
Female	Hispanic	117	172	246	272

## Appendix C

### Analysis Specifications

Basic specifications for analyses leading to each capsule summary table or figure are provided in this appendix. For each analysis conducted by RTI, supporting information is provided regarding (1) weights used, (2) groups included in the analysis, (3) classification variables used, other than race/ethnicity, sex, or educational attainment, and (4) construction of the analysis variables. Additionally, known or suspected bias due to variable definitions is discussed. More detailed information regarding weighting, composite variables, and overall frequencies of individual variables may be obtained elsewhere (Riccobono, et al., 1981).

Three classification variables—sex, race/ethnicity, and educational attainment—were used to define subgroups of interest for a large number of analyses. The composite variables CSEX, CRACE, and EDATT from the NLS public release tape were used to define these three classification variables (see also Appendix D). EDATT was collapsed as needed to form from three to eight categories of educational attainment, as indicated in footnotes to the various tables or figures. In defining race/ethnicity, CRACE values of three, four, and five were collapsed to form one category of Hispanics, and categorization of racial/ethnic classifications other than white, black, and Hispanic generally was not attempted due to small numbers of cases in such classifications. A number of other classification variables also were constructed for more specific application to only one or two tables or figures. These additional variables are documented in the specifications for each individual analysis.

The remainder of this appendix contains the analysis specifications, first for each of the tables and subsequently for each figure. Reference to Appendix A, Table A.2, will provide additional insight into the extent of possible bias in results.

**Table 1**

*Weights.* W21.  
*Inclusions.* All.  
*Classification Variables.* Sex and race/ethnicity.  
*Analysis Variables.* Activity states were defined by FT1A through FT1I. Fourth Follow-Up Tabular Summary results were used.  
*Known or Suspected Bias Due to Variable Definitions.* None.

**Table 2**

*Weights.* W21.  
*Inclusions.* All.  
*Classification Variables.* Sex and race/ethnicity.  
*Analysis Variables.* Educational attainment was defined by the EDATT composite.  
*Known or Suspected Bias Due to Variable Definitions.* None.

**Table 3**

*Weights.* W21 × TELMLT4.  
*Inclusions.* Only persons with a positive indication of attendance at a 2- or 4-year college ( $3 < = EDATT < = 8$ ) were included. Footnote "b" in Table 3 specifies an additional inclusion of "repayment schedule currently active," positive indication of which was accomplished by including only those for whom FT191 = 2. Positive indication of the further inclusion in footnote "e," these who are paying, was specified by including only those for whom FT188A > 0.  
*Classification Variables.* Home ownership was "yes" if FT184 = 2, and "no" if FT184 = 1.  
*Analysis Variables.* Five analysis variables were constructed:  
 (1) Owe money for loan = "yes" if FT187A > 0, "no" if FT187A = 0.  
 (2) Indebtedness = FT187A.  
 (3) Paying loan = "yes" if FT188A > 0, "no" if FT188A = 0.  
 (4) Difficulty in meeting payments = "yes" if FT193 = 2, "no" if FT193 = 1.  
 (5) Monthly payment = FT188A.  
*Known or Suspected Bias Due to Variable Definitions.* Possible bias exists as a result of missing inclusion variables; however, direction of bias is unknown.

**Table 4**

*Weights.* W21 was used for analyses broken down by sex, and W29 for analyses broken down by receipt of Federal grants or loans.  
*Inclusions.* Only persons with a positive indication of a 4-year degree or more (defined as EDATT equal to 7 or 8) were included.  
*Classification Variables.* (1) Receipt of Federal grants or loans was defined as receipt of any Federal grant or loan (as specified in Figure 4) during 1972-1979. (2) Sex.

*Analysis Variables.* College major was defined by collapsing Field of Study (FOS) codes in FT76ED, with FT87, FT99, and FT111 used for imputation. *Known or Suspected Bias Due to Variable Definitions.* (See discussion of Figure 4 for potential bias in classification variable.)

**Table 5**

*Weights.* W25.

*Inclusions.* Only persons with a positive indication of graduation from college (EDATT = 7 or 8) were included.

*Classification Variables.* College major, as defined as an analysis variable in Table 4, was used to define subgroups along with sex.

*Analysis Variables.* The binary indicator of graduate training was "yes," if the person had a positive indication of a graduate degree (EDATT = 8) or attended a graduate school or professional school (ACT2(75-73) = 6) during 1975-1979. Otherwise, the indicator was set to "no."

*Known or Suspected Bias Due to Variable Definitions.* The procedure for the construction of the analysis variable, by focusing upon only positive indicators of graduate school attendance and not including indeterminate data, results in lower bound estimates.

**Table 6**

*Weights.* W21  $\times$  TELMLT4.

*Inclusions.* Only those persons with a positive indication of working in 1979 (ACT479 = 1) were included.

*Classification Variables.* For the work status groups that included combinations of work and some other activity, the other activity was defined as follows: (1) homemaker if ACT679 = 1; (2) part-time student if ACT379 = 2; and (3) full-time student if ACT379 = 1.

*Analysis Variables.* Hours worked weekly was determined by FT22.

*Known or Suspected Bias Due to Variable Definitions.* Possible bias exists as a result of missing inclusion variables; however, the direction of bias is unknown.

**Table 7**

*Weights.* W29.

*Inclusions.* Only those persons with a positive indication of full- or part-time work in 1979 (ACT479 = 1) and a positive indication of either nonstudent (ACT379 = 7) or part-time student (ACT379 = 2) status were included.

*Classification Variables.* (1) Years of full-time work was calculated by summing the number of years a person had a positive indication of full-time work (ACT5(72-79) = 1) and a positive indication of either part-time student status (ACT3(72-79) = 2) or nonstudent status (ACT3(72-74) = 3, ACT3(75-79) = 7). The assumption was made that for ACT3(72-74), the vast majority of unclassified students (ACT3(72-74) = 3) were not studying. (2) Educational attainment.

*Analysis Variables.* Annualized salary was defined as  $52 \times \text{FT24}$ , while hourly salary was defined as  $\text{FT24}/\text{FT22}$ .

*Known or Suspected Bias Due to Variable Definitions.* Although the assumption of nonstudent status for ACT3(72-74) = 3 may tend to slightly inflate the number of years working, due to the procedure for constructing the working variable, the estimate of years of full-time work should be taken as a conservative lower bound. Also, possible bias exists as a result of missing inclusion variables; however, the direction of bias is unknown.

**Table 8**

*Weights.* W21.

*Inclusions.* Only those with a positive indication of working (ACT479 = 1) and a positive indication of not being full-time students (ACT379 = 2 or ACT379 = 7) were included.

*Classification Variables.* Sex, race/ethnicity, educational attainment.

*Analysis Variables.* Employer type was determined by FT12E.

*Known or Suspected Bias Due to Variable Definitions.* Possible bias exists as a result of missing inclusion variables; however, the direction of bias is unknown. Also, missing values for analysis variable may have introduced bias of unknown direction.

**Table 9**

*Weights.* W21  $\times$  TELMLT4.

*Inclusions.* Only persons with a positive indication of ever being married (FT165 = 3, 4, or 5) were included. In addition, for mean expected and actual children, only those with a positive indication of expecting or actually having at least one child were included.

*Classification Variables.* Sex and educational attainment.

*Analysis Variables.* Expected number of children was defined using FT175. Actual number of

children was zero if FT176 = 1. If FT176 = 2, then FT177 was used to determine the actual number of children.

*Known or Suspected Bias Due to Variable Definitions.* Possible bias exists as a result of missing inclusion variables; however, the direction of bias is unknown.

**Table 10**

*Weights.* W21  $\times$  TELMLT4.

*Inclusions.* Only those persons with a positive indication of being currently married (FT165 = 4 or 5) and a positive indication of not receiving half or more of their support from parents or relatives (FT183  $\neq$  2 and  $\neq$  4) were included.

*Classification Variables.* Sex and educational attainment.

*Analysis Variables.* Three analysis variables were constructed. (1) A person was determined to own a home if FT184 = 2, and not to own if FT184 = 1. (2) A spouse was working if FT167B = 1, and was otherwise not working. (3) Public assistance receipt was missing if all three indicators FT190CC, FT190DC, and FT190EC were missing. A person was determined to receive public assistance if at least one nonmissing indicator was greater than zero, and not to receive if all nonmissing indicators were zero.

*Known or Suspected Bias Due to Variable Definitions.* The percent with working spouses is a conservative lower bound estimate because of analysis variable construction rules. To the extent that those missing data on receipt of public assistance reflect an unwillingness to respond, there is a suggestion that percentages for that variable are also lower bound estimates.

**Table 11**

*Weights.* W3 was used for 1972-1973; W8 for 1974; W13 for 1975-1976; and W21 for 1977-1979.

*Inclusions.* All.

*Classification Variables.* Sex and race/ethnicity.

*Analysis Variables.* If ACT8(72-79) = 1, then a person was in the military for a given year; if ACT8(72-79) = 2, the person was not in the military.

*Known or Suspected Bias Due to Variable Definitions.* Unclassified persons (ACT8(72-74) = 3) were determined to be missing. Bias would result if the percentage of the unclassified persons in the military differed significantly from that of classified persons.

**Table 12**

*Weights.* W27.

*Inclusions.* All.

*Classification Variables.* Sex and race/ethnicity.

*Analysis Variables.* Plans for military service in 1972 were determined from BQ30. A person was considered to have had military service only if there was positive indication of service on one or more of the following variables: ACT8(72-79) = 1; FT154, TQ118, SQ121, or FQ64 = 3; TQ158FA, TQ158FB, TQ158FC or TQ158FD = 6.

*Known or Suspected Bias Due to Variable Definitions.* Suspected bias is small; however, to the extent that it exists, the analysis variable rule should produce lower bound estimates.

**Table 13**

*Weights.* W21  $\times$  TELMLT4.

*Inclusions.* All for analysis variables (1) and (3). For analysis variable (2), only persons with a positive indication of registering to vote (FT200 = 1) were included.

*Classification Variables.* Sex and race/ethnicity.

*Analysis Variables.* Three analysis variables were constructed. (1) A person was determined to have registered to vote if FT200 = 1, and not to have registered if FT200 = 2. (2) If FT201 = 1, then a person voted, and if FT201 = 2, a person did not vote. (3) Other active political participation was defined using FT199A and FT199B3 through FT199H. If all of these variables were missing, political participation was determined to be missing. Otherwise, if any of FT199B3 through FT199H equaled 2 or 3, a person was determined to have reported "other active political participation."

*Known or Suspected Bias Due to Variable Definitions.* There is a suggestion that the percentage registered to vote is an underestimate, since about 25 percent of those "not registered" indicated they had voted. Assuming that these individuals were registered, then the percentage of registered individuals who had voted is also an underestimate.

**Table 14**

*Weights.* W22  $\times$  TELMLT4.

*Inclusions.* All persons were included who had at least one determinate response for items BQ20A-BQ20J and one for FT197A-FT197L.

*Classification Variables.* Sex and educational attainment.

*Analysis Variables.* If items BQ20A-J and FT197A-L were missing, a response of "not important" was imputed (note, however, inclusion rule). The percentages of subgroups which rated various life values "very important" were then calculated from BQ20A-J and FT197A-L.

*Known or Suspected Bias Due to Variable Definitions.* Due to the imputation of "not important" for missing data, the percentages are biased downward; however the exclusion of approximately 1000 individuals due to all missing data within either of the questionnaire item sets may have introduced additional bias of unknown direction.

#### Figure 1

*Weights.* W21 was used for 1977-1979.

*Inclusions.* All.

*Classification Variables.* Race/ethnicity.

*Analysis Variables.* Percentages for 1972-1976 were obtained from the Third Follow-Up Capsule Summary. For 1977-1979, ACT177-ACT179 were used to determine enrollment. For each subgroup, the proportion enrolled is the number of persons with  $ACT1(77-79) = 1$  (where  $ACT1(77-79) = 1$  denotes  $ACT177 = 1$ ,  $ACT178 = 1$ ,  $ACT179 = 1$ ) divided by the number of those with  $ACT1(77-79) = 1, 2, \text{ or } 5$ .

*Known or Suspected Bias Due to Variable Definitions.* Since unclassifiable persons ( $ACT1(77-79) = 5$ ) were counted as "not studying," the percentages in Figure 1 represent a lower bound estimate; however, due to the low number of unclassifiable persons, the downward bias should be quite small.

#### Figure 2

Analyses were performed by NCES and analysis specifications are not available.

#### Figure 3

*Weights.* W22.

*Inclusions.* All.

*Classification Variables.* None.

*Analysis Variables.* EDATT and BQ29B were recoded to produce educational attainment and base-year expectations of attainment.

*Known or Suspected Bias Due to Variable Definitions.* Missing values for analysis variables may have introduced bias of unknown direction.

#### Figure 4

*Weights.* W3 was used for 1973; W10 for 1974;

W16 for 1975; W13 for 1976; W25 for 1977; and W21 for 1978-1979. In this analysis, data for one academic year sometimes came from two follow-ups. For example, for the academic year 1973-1974, ACT373 (from the first follow-up) was used to determine inclusion, while the analysis variables for receipt of aid and the classification variable for tuition came from the second follow-up. Proper weighting, in this case using W10, allows such combination of data.

*Inclusions.* Only persons with a positive indication of full-time student status ( $ACT3(72-78) = 1$ ) and enrollment in a 2- or 4-year college ( $ACT2(72-78) = 2 \text{ or } 3$ ) were included.

*Classification Variables.* Tuition was defined using FT120A-FT120C, TQ89AB, TQ89AA, SQ44A, and FQ46BA. Tuition was dichotomized at \$700.

*Analysis Variables.* Binary indicators for receipt of Federal, non-Federal, or any grants; Federal, non-Federal, or any loans; and Federal, non-Federal, or any grants, loans or work-study were constructed, using the variables FT123, FT126, FT132, TQ91, TQ93, TQ97, SQ47, SQ50, SQ56, and FQ47.

*Known or Suspected Bias Due to Variable Definitions.* Because of the analysis variable definition, the percentages for receipt of aid are biased downward. Also, possible bias exists as a result of missing inclusion variables; the direction of such bias is unknown.

#### Figure 5

*Weights.* W3 was used for 1973; W10 for 1974; W16 for 1975; W13 for 1976; W25 for 1977; and W21 for 1978-1979. As in Figure 4, data for one academic year sometimes came from two follow-ups (see above under Figure 4).

*Inclusions.* Only persons with a positive indication of full-time student status ( $ACT3(72-78) = 1$ ) and enrollment in a 2- or 4-year college ( $ACT2(72-78) = 2 \text{ or } 3$ ) were included. In addition, only persons receiving some form of financial aid (using the analysis variable for "any aid" reported in Figure 4) were included.

*Classification Variables.* Tuition was defined using FT120A-FT120C, TQ89AB, TQ89AA, SQ44A, and FQ46BA. Tuition was dichotomized into two categories, \$700 or less, and more than \$700.

*Analysis Variables.* Variables for total grant amount and total loan amount were defined using FT124, FT127, FT133, TQ91, TQ93, TQ97, SQ48, SQ51, SQ57, and FQ47. A value of zero was imputed for missing grant or loan amount if

the person had a grant or loan amount greater than zero, or a positive indication of receipt of work-study, and the person did not have a positive indication from variables used in Figure 4 of receipt of grants or loans. As a result of the imputation process, the analysis data set contained no missing data, since only persons with a positive indication of receipt of aid were included, and imputation was performed for these persons.

*Known or Suspected Bias Due to Variable Definitions.* Due to the analysis variable definition, the means for grants and loans are biased downward. Also, possible bias exists as a result of missing inclusion variables; however, the direction of bias is unknown.

#### Figure 6

*Weights.* W3 is used for 1972-1973; W8 for 1974; W13  $\times$  TELMULT for 1975-1976; and W21  $\times$  TELMULT4 for 1977-1979.

*Inclusions.* All.

*Classification Variables.* Sex and race/ethnicity.

*Analysis Variables.* A binary indicator of membership in the work force was constructed by the algorithm:

Labor force(72-79) = "yes" if:

ACT3(72-79)  $\neq$  1 and

(ACT4(72-79) = 1 or ACT7(72-79) = 1 or

ACT8(72-79) = 1 or OTHER[72-79]), where

OTHER79 = (FT1E = 5 or FT1H = 8)

OTHER78 = (FT9G = 7)

OTHER77 = (FT10G = 7)

OTHER76 = (TQ1G = 7)

OTHER75 = (TQ9G = 7)

OTHER74 = (SQ1F = 6)

OTHER73 = (FQ1F = 1)

OTHER72 = no other variables used.

For example, a person was in the work force in 1975 if ACT375  $\neq$  1 and (ACT475 = 1 or ACT775 = 1 or ACT875 = 1 or TQ9G = 7).

*Known or Suspected Bias Due to Variable Definitions.* The procedure for constructing the analysis variable results in upper bound estimates of the percent out of the work force.

#### Figure 7

*Weights.* W3 was used for 1972-1973; W3 for 1974; W13  $\times$  TELMULT for 1975-1976; and W21  $\times$  TELMULT4 for 1977-1979.

*Inclusions.* Only those persons with a positive indication of being in the labor force for a given

year (as defined in Figure 6) were included.

*Classification Variables.* Sex and race/ethnicity.

*Analysis Variables.* Unemployment was defined as "no" if ACT4(72-79) = 1 or ACT8(72-79) = 1, and "yes" otherwise.

*Known or Suspected Bias Due to Variable Definitions.* The procedure for constructing the analysis variable results in an upper bound estimate of the percent unemployed; however, to the extent that those in the labor force were underestimated, additional bias of unknown direction may have been introduced.

#### Figure 8

*Weights.* W3 was used for 1972-1973; W8 for 1974; W13  $\times$  TELMULT for 1975-1976; and W21  $\times$  TELMULT4 for 1977-1979.

*Inclusions.* Only those persons with positive indications of being in the labor force (as defined in Figure 6) and of being employed (as defined in Figure 7) were included.

*Classification Variables.* Sex and race/ethnicity.

*Analysis Variables.* Part-time labor was defined as "no" if ACT5(72-79) = 1 or ACT8(72-79) = 1, and "yes" otherwise.

*Known or Suspected Bias Due to Variable Definitions.* The procedure for constructing the analysis variable results in an upper bound estimate of the percent working part-time; however, to the extent that both those in the labor force and those employed were underestimated, additional bias of unknown direction may have been introduced.

#### Figure 9

*Weights.* W21 was used in the Tabular Summary for item FT165.

*Inclusions.* All.

*Classification Variables.* Sex and race/ethnicity.

*Analysis Variables.* Results were directly obtained from question FT165 on the Tabular Summary for 1979, and from the Third Follow-Up Capsule Summary for earlier years.

*Known or Suspected Bias Due to Variable Definitions.* None due to variable definitions specific to this report; however, there is a suggestion of bias of unknown direction due to indeterminacy in variables used to produce statistics on which the results are based (see Appendix A, Table A.2).

#### Figure 10

*Weights.* W21 was used in the Tabular Summary for item FT165.

*Inclusions.* Only those with a positive indication of ever being married (FT165 = 3, 4, or 5) were included.

*Classification Variables.* Sex and race/ethnicity.

*Analysis Variables.* The percent ever divorced among those ever married was taken from the

Fourth Follow-Up Tabular Summary for 1979, and from the Third Follow-Up Capsule Summary for earlier years.

*Known or Suspected Bias Due to Variable Definitions.* (See comments for Figure 9.)

## Appendix D

### Selected Questionnaire Items

Most analyses reported in this capsule summary of the National Longitudinal Study of the High School Class of 1972 (NLS) were based on composite variables that were either previously computed and available on the NLS release tape (Riccobono, *et al.*, 1981) or computed specifically for this report (Appendix C). Some analyses, however, were based

on single item responses. To provide examples of particular questionnaire items that were used (either as separate variables or as the base for construction of composites or classifiers), selected items are provided in this Appendix. Complete copies of all student questionnaires are available elsewhere (Riccobono, *et al.*, 1981).

#### Second Follow-up, Item 8

How do you describe yourself?

(Circle one.)

- American Indian . . . . .1
- Black or Afro-American or Negro. . . . .2
- Mexican-American or Chicano. . . . .3
- Puerto Rican . . . . .4
- Other Latin-American origin. . . . .5
- Oriental or Asian-American. . . . .6
- White or Caucasian . . . . .7
- Other . . . . .8

#### Fourth Follow-up, Item 1

What were you doing during the first week of October 1979?

(Circle as many as apply.)

- Working for pay at a full-time or part-time job. . . . .1
- Enrolled in graduate or professional school. . . . .2
- Taking academic courses at a 2- or 4-year college . . . . .3
- Taking vocational or technical courses at any kind of school or college (for example, vocational, trade, business, or other career-training school). . . . .4
- Serving in an apprenticeship program or government training program. . . . .5
- On active duty in the armed forces (or service academy) . . . . .6
- Homemaker . . . . .7
- On temporary layoff from work, looking for work, or waiting to report to work. . . . .8
- Other (describe \_\_\_\_\_). . . . .9

#### Fourth Follow-up, Item 22

Please think about the most recent job you held during the period from the first of November 1978 through October 1979. How many hours did you usually work at this job in an average week?

\_\_\_\_\_ hours per week

#### Fourth Follow-up, Item 24

In an average week, approximately how much did you earn at this job? (Report your gross earnings before deductions. If not paid by the week, please estimate.)

\$ \_\_\_\_\_ per week (Earnings before deductions)



#### Fourth Follow-up, Item 67

As of the first week of October 1979, what was your highest level of college education?

(Circle one.)

- This does not apply to me since I have not attended college. . . . .0
- Some, but less than two years of college . . . . .1
- Two or more years of college. . . . .2
- Finished college (4- or 5-year degree). . . . .3
- Master's degree or equivalent. . . . .4
- Ph.D. or advanced professional degree. . . . .5

#### Fourth Follow-up, Item 79

During the period from the first of November 1978 through October 1979, were you enrolled in or did you take classes at any school such as a college or university, graduate or professional school, service academy or school, business school, trade school, community college, and so forth?

(Circle one.)

- No . . . . .1
- Yes. . . . .2

#### Fourth Follow-up, Item 82

What kind of school was the last school you attended during the period from the first of November 1978 through October 1979?

(Circle one.)

- Vocational, trade, business, or other career-training school . . . . .1
- Junior or community college (2-year) . . . . .2
- College or university (four years or more) . . . . .3
- Independent graduate or professional school (medical, dental, law, theology, etc.). . . . .4
- Other (describe \_\_\_\_\_) . . . . .5

#### Fourth Follow-up, Item 87

Please select below the category which best describes this field or area.

(Circle one.)

- Agriculture or Home Economics. . . . .1
- Business (accounting, marketing, personnel management, etc.). . . . .2
- Office and Clerical (bookkeeping, stenography, general office, etc.) . . . . .3
- Computer Technology (keypunch operator, programming, computer operations, etc.) . . . . .4
- Education (elementary, special, physical, etc.) . . . . .5
- Engineering (civil, electrical, mechanical, etc.). . . . .6
- Mechanical and Engineering Technology (automotive mechanic, machinist, construction, drafting, electronics, etc.) . . . . .7
- Humanities and Fine Arts (music, religion, English, etc.). . . . .8
- Health Services (nursing, lab technician, occupational therapy, etc.) . . . . .9
- Public Services (law enforcement, food service, recreation, beautician, etc.) . . . . .10
- Physical Sciences and Mathematics (physics, geology, chemistry, etc.) . . . . .11
- Social Sciences (psychology, history, economics, sociology, etc.) . . . . .12
- Biological Sciences (zoology, physiology, anatomy, etc.). . . . .13
- Professional Program (medicine, dentistry, law, theology, etc.). . . . .14
- Other field or area (specify \_\_\_\_\_) . . . . .15
- Undecided . . . . .16

Fourth Follow-up, Item 165

What was your marital status the first week of October 1979?

(Circle one.)

- Never married, but plan to be married within the next 12 months. . . . .1  
Never married, and don't plan to be married within the next 12 months . . . . .2  
Divorced, widowed, separated . . . . .3  
Married to my first husband or wife . . . . .4  
Remarried after being divorced or widowed . . . . .5

Fourth Follow-up, Item 199

The following questions ask about your political participation. Considering the period from October 1976 to October 1979,

(Circle one number on each line.)  
Frequently Sometimes Never

- When you talked with your friends, did you ever talk about public problems—  
that is, what's happening in the country or in your community? . . . . .1 . . . . .2 . . . . .3  
Did you ever talk about public problems with any of the following people?  
Your family . . . . .1 . . . . .2 . . . . .3  
People where you work . . . . .1 . . . . .2 . . . . .3  
Community leaders, such as club or church leaders . . . . .1 . . . . .2 . . . . .3  
Did you ever talk about public problems with elected government officials or  
people in politics, such as Democratic or Republican leaders? . . . . .1 . . . . .2 . . . . .3  
Did you ever talk to people to try to get them to vote for or against  
a candidate? . . . . .1 . . . . .2 . . . . .3  
Did you ever give any money or buy tickets to help someone who was trying  
to win an election? . . . . .1 . . . . .2 . . . . .3  
Did you ever go to any political meetings, rallies, barbecues, fish fries, or things  
like that in connection with an election? . . . . .1 . . . . .2 . . . . .3  
Did you ever do any work to help a candidate in his campaign? . . . . .1 . . . . .2 . . . . .3  
Did you ever hold an office in a political party or get elected to a  
government job? . . . . .1 . . . . .2 . . . . .3