

# Characteristics of Student OASDI Beneficiaries in 1973: An Overview

by PHILIP SPRINGER\*

*Unmarried, full-time student children aged 18-21 of deceased, retired, or disabled workers receive monthly benefits under the social security program. These student beneficiaries, surveyed in the 1972-73 school year, are described in terms of socioeconomic background, educational and school cost characteristics, and current attitudes. Student beneficiaries were more likely to be black, to have parents who had worked at blue-collar occupations, and to come from families with incomes lower than family income nationally. The family income of those who were in college was much lower than the income levels of other families with children in college. About a fifth were completing secondary education, most of the remainder were in college. Two-thirds were maternal or paternal orphans. College student beneficiaries were more likely to work than college students generally and to maintain similar grades. About half of the student beneficiaries rely on their benefits to continue or complete their education. A third felt they would not be in school at all full time were they not receiving benefits.*

IN THE 10 YEARS since the start of the student benefit program under the Social Security Act in 1965, nearly 45 million young persons aged 18-21 have received these benefits while completing high school or pursuing further education. Most had already received child's benefits under the old-age, survivors, and disability insurance (OASDI) program during their teenage or childhood years. For others, benefits were first received after they reached their eighteenth birthday when their mother or father became disabled, retired, or died.

Although these provisions are not as well known as other parts of the social security program, they affect large portions of the age group preparing themselves through education for their working careers. Currently, more than 1 in 10 of all full-time students in the United States aged 18-21 is a beneficiary, about 1 in 9 high school students aged 18 or older gets student benefits.

This never-before-studied group of beneficiaries was the subject of the 1973 Survey of Student

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Beneficiaries Conducted by the Office of Research and Statistics of the Social Security Administration, the study gathered direct-interview information from nearly 3,000 students and their families and combined these data with Social Security Administration benefit record information for the student and the student's family. The survey sample relates to the 634,481 student beneficiaries on the rolls at the end of 1972.<sup>1</sup>

The family interview provided information on employment, nonearned income, education, and other characteristics of the family. The student interview focused on the student's school and studies, educational costs, scholarship, aid, and loan receipt; employment, and attitudes and educational aspirations. Interview data refer to the 1972-73 school year except that income data are for calendar year 1972. (Details of the survey are presented in the Technical Note, pages 23-32.)

This report from the survey describes the student beneficiary in general terms and in comparison with the larger total student population.<sup>2</sup> Later reports will focus on those in college and in high school or noncollege postsecondary schools, evaluate the several provisions for student benefit receipt, and relate the program to various forms of aid available to and received by students.

## BACKGROUND OF PROGRAM

### Context of Student Benefits

The concept of social insurance in the original Social Security Act of 1935 as a program to

<sup>1</sup> By the start of 1976, about 775,000 were on the rolls. This upturn in the student beneficiary population coincides with the poor labor market of recent years for young people and with the recent increase of young people in postsecondary education.

<sup>2</sup> Comparisons with the total student population or among beneficiary students are made in this report when differences exceed one standard error. Since the total student population includes beneficiary students, all comparisons tend toward similarity rather than differences.

maintain income when a worker retires has broadened into a complex of programs also to replace earnings when a worker dies or becomes disabled. Considered in their entirety, these programs provide a broad spectrum of insurance to protect the family, normally dependent on a worker's earnings, from the consequences expectable when those earnings are lost. Privation, dissolution of the family, wardship of society. As a social institution, the social security program ensures continuity of the basic social unit—the family—when the economic base of the unit's existence, earnings, is lost.

Income maintenance under the program is accomplished by paying a benefit to the worker (if alive) and also to such persons (including survivors) related by blood, marriage, or adoption who are themselves dependents of the worker. Dependency is most often deemed because of relationship or disability. That is, these conditions are accepted as precluding self-support through employment.

Certain activities are accepted as precluding self-support and as constituting a dependency situation. The most frequent of these is the widowed mother caring for a minor child, that mother and child are eligible for benefits on the presumption that they were dependent on the wage earner. Similarly, full-time school attendance by children aged 18–21 is assumed to be a dependency situation. Studies extend the child's dependence on family resources for sustenance and preclude self-support. The benefit is thus extended to children, not as an educational benefit or a grant or a scholarship but as an extension of the dependency relationship assumed by the program to exist for a minor child up to age 18.

The broad concept of income maintenance was expressed in more personal terms 40 years ago at the formulation of social security principles, in describing the basic uses to which a worker's wage-earnings are normally put: "support of aged parents, rear and educate children, maintain his family at a standard of living more or less consistent with American ideals." <sup>3</sup> When the earnings of an insured worker are lost, then benefits usually become the basic support and maintenance of the family.

<sup>3</sup> *Social Security in America*, Social Security Board (published for the Committee on Economic Security), 1937.

The history of the benefit structure of the social security program shows its development as a family maintenance system. The 1939 amendments extended benefits, previously payable only to the retired worker, to his aged wife, to dependent parents, to children under age 15, and to student children aged 16–17. That legislation also provided benefits for the survivors of a deceased worker—his aged widow and his children—and for his wife caring for those children. In 1946, children were recognized as dependent members of the family regardless of school attendance through their eighteenth year. The 1950 amendments paid benefits to younger wives of retired workers caring for children, to dependent aged husbands, and to some surviving divorced wives. Continuing dependency of a disabled child was recognized in the 1956 Act.

In 1958, families who had lost earnings because of the worker's disability became eligible for benefits. In 1965, benefit payments to full-time student children aged 18–21 were established. Thereby, the family model on which benefits are paid became essentially complete. Benefits for the worker (if alive) and the core family of wife and young children, benefits for dependent aged parents and for the child unable to be self-supporting, benefits for the aged couple, and benefits permitting the traditional education function of the family to be completed <sup>4</sup>.

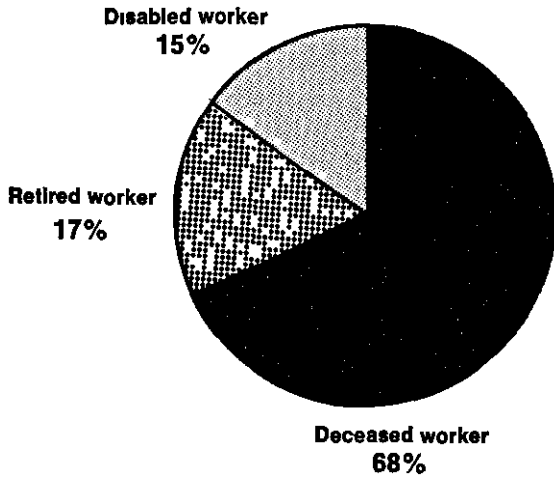
Within this context, research into the student benefit program can be seen to differ from other OASDI research in several aspects of subject matter and orientation. The focus in other research is often on all family members, treated together as an economic unit. The natural focus of this research, however, is the individual student beneficiary and his major activity, education. The student's economic situation reflects not only his benefits and the benefits and other income of the entire family but also involves consideration both of school costs and of a variety of educational loans, grants, and scholarship aid available directly because of education. These latter funds constitute an educational income—that is, an income based exclusively on being a student, as opposed to income from benefits or earnings. Furthermore, since the student beneficiary may be

<sup>4</sup> Currently, the family benefit concept has been developed to include some grandchildren, younger disabled surviving spouses, and divorced wives after 20 years of marriage.

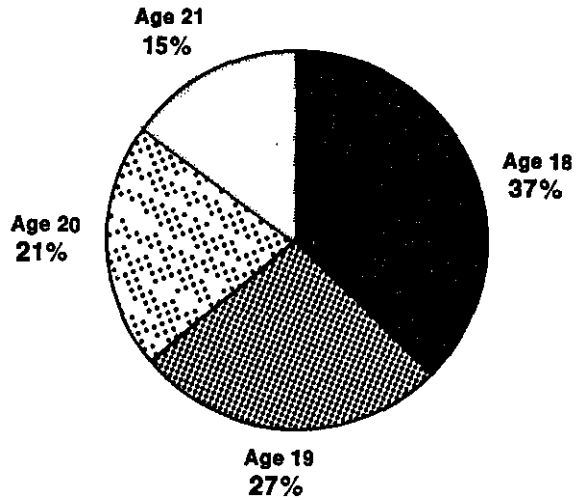
CHART 1 — Student beneficiaries in profile

**BASIS OF ENTITLEMENT**

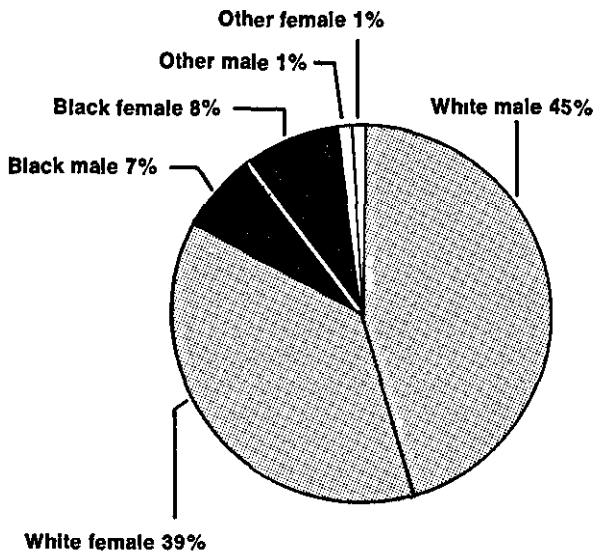
**CHILD OF:**



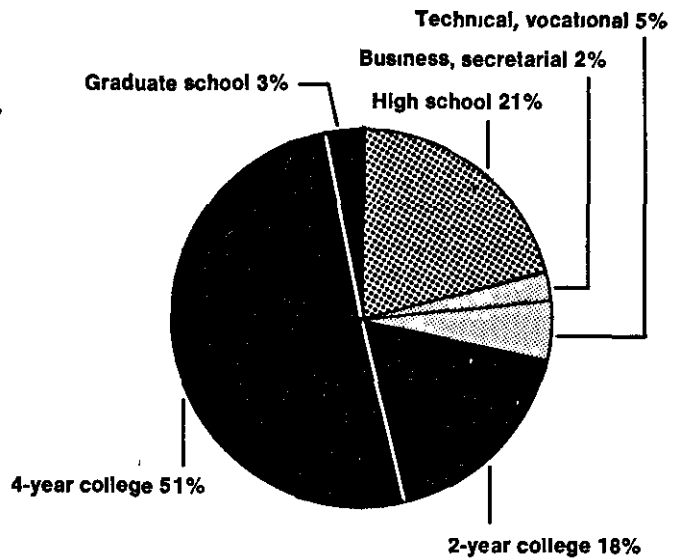
**STUDENTS AGE (December 1972)**



**RACE AND SEX**



**TYPE OF SCHOOL**



entitled as a dependent of a retired or disabled worker or as the survivor of a deceased insured worker, he is found in a variety of family structures and with socioeconomic and benefit levels characteristic of such families

As a result of these differences, the criteria of effectiveness and adequacy of the student benefit program are more complex than those in other program research. In other research the major question is the extent to which lost earnings are replaced—whether benefits maintain the family “at a standard of living more or less consistent with American ideals.” For the student benefit program, the question is the extent to which the benefit permits the family education function to be completed in ways consistent with American ideals.

Thus, the 1973 Survey of Student Beneficiaries addressed the question of whether children of a deceased, retired, or disabled parent resemble children in general with respect to their education careers—most specifically, whether student beneficiaries resemble other students aged 18–21. This overview includes as part of its description of student beneficiaries numerous comparisons with the much larger body of students in general.

For reasons of economy, the survey sampled only those children actually receiving student benefits. It did not deal with the larger question of whether children eligible for student benefits in fact pursue education in ways similar to children generally.<sup>6</sup> It is estimated that beneficiary students comprise 31 percent of those eligible.<sup>6</sup> In the general population aged 18–21, about 36 percent are estimated to be full-time students.

### Conditions of Receipt of Student Benefits

Children of a deceased, disabled, or retired worker (mother or father, occasionally a grandparent) who are attending school full time can receive benefits from age 18 through 21 or to the

<sup>6</sup> See Patricia Ruggles and Carol Zuckert, “Social Security Student and Former Child Beneficiaries Aged 18–21,” *Social Security Bulletin*, March 1974 for information from a pretest on school and work activities of former child beneficiaries who did not become student beneficiaries.

<sup>6</sup> Bureau of the Census, *Current Population Reports*, Series P-20, No. 247. Estimate assumes full time attendance in October 1972 if in high school, with age/race adjustments for full time college attendance.

end of the school term in which age 22 is attained. Married children are not eligible for benefits. As with all social security benefits, the level of the benefit is proportional to the lost earnings they replace, not to need.

The benefit is paid year round, without regard to kind or level of school attended, excluding home-study courses and training programs shorter than 13 weeks’ duration. As with all OASDI social security benefits, student benefits are paid regardless of other family income, except that earnings by the student or by his entitled parent above the exempt amount can result in partial or full loss of his benefits. The student benefit, as one portion of the family benefit, may also be reduced if the total family benefit exceeds the maximum payable.<sup>7</sup> Chart 1 gives a general view of the student beneficiary in 1972.

## DEMOGRAPHIC CHARACTERISTICS

### Age

The age distribution of student beneficiaries overall is the same as that of the general student population, as the percentages for high school and college students shown below indicate. The data

| Age (as of October 1972)       | Student beneficiaries | All students |
|--------------------------------|-----------------------|--------------|
| Total number (in thousands)... | 502                   | 6 646        |
| Total percent                  | 100                   | 100          |
| 18 - - - - -                   | 37                    | 37           |
| 19 - - - - -                   | 27                    | 25           |
| 20 - - - - -                   | 21                    | 21           |
| 21 - - - - -                   | 15                    | 17           |

suggest some differences, however, in the kinds of school attended by each of the age groups (table 1). At age 18 a slightly higher proportion of student beneficiaries is found in high school than in the general population of 18-year-old students, with equal proportions at ages 19–21, when nearly all are in college. One reason student beneficiaries may be found more often in high school at ages older than 17 may be that the receipt of benefits makes them better able finan-

<sup>7</sup> See the technical note, page 24. At the end of 1972, students were receiving benefits based on an average PIA of \$189, which corresponds to a maximum family benefit of \$284 (150 percent of PIA).

**TABLE 1—School attendance Percentage distribution of student beneficiaries and of the general student population, by age, October 1972**

| Age    | Percentage distribution            |            |                |                           |            |                |
|--------|------------------------------------|------------|----------------|---------------------------|------------|----------------|
|        | Student beneficiaries <sup>1</sup> |            |                | All students <sup>1</sup> |            |                |
|        | Total                              | In college | In high school | Total                     | In college | In high school |
| 18 - - | 100                                | 63         | 37             | 100                       | 69         | 31             |
| 19 - - | 100                                | 87         | 13             | 100                       | 90         | 10             |
| 20 - - | 100                                | 96         | 4              | 100                       | 96         | 4              |
| 21 - - | 100                                | 100        | - -            | 100                       | 99         | 1              |

<sup>1</sup> Excludes more than 41,000 noncollege postsecondary student beneficiaries and those not in school at start of academic year. Includes less than 3 percent in graduate school. About 20,000 students in the sample were aged 18 in December 1972 but were only aged 17 in October 1972 and thus were excluded from the comparison.

<sup>2</sup> Based on data from Bureau of the Census, "Social and Economic Characteristics of Students, October 1972," *Current Population Reports*, Series P-20, No. 260, February 1974, table 14, page 50. Includes student beneficiaries.

**TABLE 2—Sex Number and percentage distribution of student beneficiaries and of the general student population, by type of school, and age, October 1972**

| Type of school and age | Student beneficiaries <sup>1</sup> |                         |      | All students <sup>2</sup>   |                         |       |      |        |
|------------------------|------------------------------------|-------------------------|------|-----------------------------|-------------------------|-------|------|--------|
|                        | Total number (in thousands)        | Percentage distribution |      | Total number (in thousands) | Percentage distribution |       |      |        |
|                        |                                    | Total                   | Male |                             | Female                  | Total | Male | Female |
| <b>High school</b>     |                                    |                         |      |                             |                         |       |      |        |
| <b>Total</b>           | 91                                 | 100                     | 66   | 34                          | 835                     | 100   | 63   | 37     |
| 18 - -                 | 69                                 | 100                     | 67   | 33                          | 632                     | 100   | 63   | 37     |
| 19 - -                 | 18                                 | 100                     | 58   | 42                          | 135                     | 100   | 65   | 35     |
| 20 - -                 | 4                                  | 100                     | (*)  | (*)                         | 52                      | 100   | 63   | 37     |
| 21 - -                 | -                                  | 100                     | (*)  | (*)                         | 16                      | 100   | 50   | 50     |
| <b>College</b>         |                                    |                         |      |                             |                         |       |      |        |
| <b>Total</b>           | 411                                | 100                     | 51   | 49                          | 4,798                   | 100   | 53   | 47     |
| 18 - - - -             | 119                                | 100                     | 40   | 55                          | 1,424                   | 100   | 49   | 51     |
| 19 - - - -             | 120                                | 100                     | 51   | 49                          | 1,256                   | 100   | 53   | 47     |
| 20 - - - -             | 100                                | 100                     | 51   | 49                          | 1,157                   | 100   | 56   | 44     |
| 21 - - - -             | 73                                 | 100                     | 59   | 41                          | 961                     | 100   | 54   | 46     |

<sup>1</sup> Excludes more than 41,000 noncollege postsecondary student beneficiaries. Excludes those not in school at start of academic year. For college, includes less than 3 percent in graduate school.

<sup>2</sup> See table 1, footnote 2.

<sup>3</sup> Not shown, base less than 10,000.

cially to complete a minimal education. In the general population, older secondary school students may have simply dropped out to go to work.

**Sex**

In the general population, both high school and college students aged 18-21 are much more likely to be male than female. Student beneficiaries do not differ from students generally in terms of sex (table 2).

**Race**

A higher proportion of blacks (17 percent) are found in the total beneficiary population than in the total United States population (11 percent) <sup>3</sup>.

<sup>3</sup> Bureau of the Census, "Social and Economic Characteristics of Students, October 1972," *Current Population Reports*, Series P-20, No. 260, tables 1 and 5, Series P-23, No. 46, table 1.

**TABLE 3—Race Number and percentage distribution of student beneficiaries, by type of school, basis for entitlement, and sex, 1972-73 school year**

| Type of school               | All student beneficiaries                |                         |       |           | Student beneficiaries, by basis for entitlement |                 |       |           |                                    |                         |       |           |
|------------------------------|--|-------------------------|-------|-----------|---|-----------------|-------|-----------|------------------------------------|-------------------------|-------|-----------|
|                              | Total <sup>1</sup> number (in thousands) | Percentage distribution |       |           | Total number (in thousands)                     | Death of parent |       |           | Retirement or disability of parent |                         |       |           |
|                              |  | Total                   | Black | All other |   | Total           | Black | All other | Total number (in thousands)        | Percentage distribution |       |           |
|                              |  |                         |       |           |   |                 |       |           |                                    | Total                   | Black | All other |
| <b>Both sexes</b> - - - -    | 588                                      | 100                     | 15    | 85        | 401   | 100             | 14    | 86        | 187                                | 100                     | 15    | 85        |
| High school - - - -          | 126                                      | 100                     | 24    | 76        | 83  | 100             | 24    | 76        | 43                                 | 100                     | 26    | 74        |
| College <sup>2</sup> - - - - | 420                                      | 100                     | 11    | 89        | 289   | 100             | 11    | 89        | 131                                | 100                     | 12    | 88        |
| Noncollege postsecondary -   | 41                                       | 100                     | 20    | 80        | 29  | 100             | 22    | 78        | 13                                 | 100                     | 15    | 85        |
| <b>Male</b> - - - - -        | 307                                      | 100                     | 13    | 87        | 210   | 100             | 12    | 88        | 97                                 | 100                     | 13    | 87        |
| High school - - - - -        | 80                                       | 100                     | 23    | 77        | 52  | 100             | 22    | 78        | 28                                 | 100                     | 15    | 75        |
| College - - - - -            | 211                                      | 100                     | 8     | 92        | 147   | 100             | 8     | 92        | 64                                 | 100                     | 9     | 91        |
| Noncollege postsecondary - - | 15                                       | 100                     | 17    | 83        | 10  | 100             | 20    | 80        | 4                                  | 100                     | 9     | 91        |
| <b>Female</b> - - - - -      | 281                                      | 100                     | 17    | 83        | 191   | 100             | 16    | 84        | 91                                 | 100                     | 17    | 83        |
| High school - - - - -        | 46                                       | 100                     | 27    | 73        | 31  | 100             | 27    | 73        | 15                                 | 100                     | 26    | 74        |
| College - - - - -            | 209                                      | 100                     | 14    | 86        | 142   | 100             | 13    | 87        | 67                                 | 100                     | 15    | 85        |
| Noncollege postsecondary - - | 27                                       | 100                     | 21    | 79        | 18  | 100             | 22    | 78        | 9                                  | 100                     | 18    | 82        |

<sup>1</sup> Excludes those not in school at start of school year.

<sup>2</sup> Includes less than 3 percent in graduate school.

and, correspondingly, a higher proportion of blacks (15 percent) are found in the student beneficiary population than in the general student population (10 percent)

In the general population aged 18-21, blacks are less likely to be full-time students in high school or college than are nonblacks (31 percent, compared with 37 percent) <sup>9</sup> In the corresponding beneficiary population, the black full-time high school or college student represents a smaller proportion (28 percent) of the black population eligible to be student beneficiaries than the proportion of nonblack students (32 percent) in the comparable potential nonblack beneficiary population <sup>10</sup> Regardless of race, beneficiary children are less likely to be students than are children generally, probably reflecting the smaller economic resources of beneficiary families described later

In both the general and beneficiary student populations aged 18-21 in high school or college, blacks were found in high school about twice as often as white students For student beneficiaries, 40 percent compared with 20 percent, for the

<sup>9</sup> Bureau of the Census, *Current Population Reports*, Series P-20, No 260, tables 1 and 5

<sup>10</sup> The potential student beneficiary population has been estimated from combined survey and program data, see the technical note, page 23

general student population, 34 percent and 13 percent.<sup>11</sup>

Among high school student beneficiaries, about 24 percent were black, among college student beneficiaries, 11 percent were black (table 3) In the general student population, blacks also represented 24 percent of those in high school but only 8 percent of those in college

### Educational Background

The educational attainment of parents, especially the father's education, is generally recognized as strongly related to a child's values, capacities, and ultimate educational attainment In general, student beneficiaries came from families with lower levels of education than students generally (chart 2)

Student beneficiaries in high school have fathers with less educational attainment than do high school students in the general population Of the latter group, 63 percent of the students attending high school had fathers who were at least high school graduates, compared with only 34 percent of beneficiary students Nineteen percent of the high school students in the general population had fathers who were college graduates, compared with 7 percent of the student beneficiaries

<sup>11</sup> Bureau of the Census, *ibid*, table 1

TABLE 4—Educational attainment of parents Number and percentage distribution of college students and college freshmen among student beneficiaries and in general student population, by basis for entitlement, 1972-73 school year

| Educational attainment of parent                     | College students          |   |                 |                                    | College freshmen      |                           |
|--|---------------------------|---|-----------------|------------------------------------|-----------------------|---------------------------|
|  | All students <sup>1</sup> | Student beneficiaries, by basis for entitlement |                 |                                    | Student beneficiaries | All freshmen <sup>2</sup> |
|  |                           | Total   | Death of parent | Retirement or disability of parent |                       |                           |
| <i>Father</i>  |                           |   |                 |                                    |                       |                           |
| Total number (in thousands) <sup>3</sup>             | 4,126                     | 370   | 209             | 111                                | 112                   | (4)                       |
| Total percent  | 100                       | 100   | 100             | 100                                | 100                   | 100                       |
| Less than high school graduate                       | 22                        | 35  | 29              | 50                                 | 36                    | 24                        |
| High school graduate, but less than college graduate | 49                        | 46  | 49              | 38                                 | 46                    | 47                        |
| College graduate or more                             | 29                        | 19  | 22              | 12                                 | 19                    | 29                        |
| <i>Mother</i>  |                           |   |                 |                                    |                       |                           |
| Total number (in thousands) <sup>3</sup>             | - - -                     | 375   | 207             | 117                                | 114                   | (4)                       |
| Total percent  | - - -                     | 100   | 100             | 100                                | 100                   | 100                       |
| Less than high school graduate                       | - - -                     | 28  | 24              | 36                                 | 31                    | 19                        |
| High school graduate, but less than college graduate | - - -                     | 58  | 60              | 53                                 | 56                    | 61                        |
| College graduate or more                             | - - -                     | 14  | 16              | 11                                 | 13                    | 19                        |

<sup>1</sup> Based on data from Bureau of the Census, Series P-20, No 260, table 10, page 33 Includes student beneficiaries Male head of household usually is the father of the student Represents full time college students aged 18-34 Complete data for mothers not available

<sup>3</sup> Based on data from American Council on Education, *American Fresh*

*men National Norms for Fall 1972 Vol 7 No 5, 1972* Includes student beneficiaries

<sup>2</sup> For student beneficiaries, excludes parents not household members in 1972 and those for whom education is not known

<sup>4</sup> Data not available

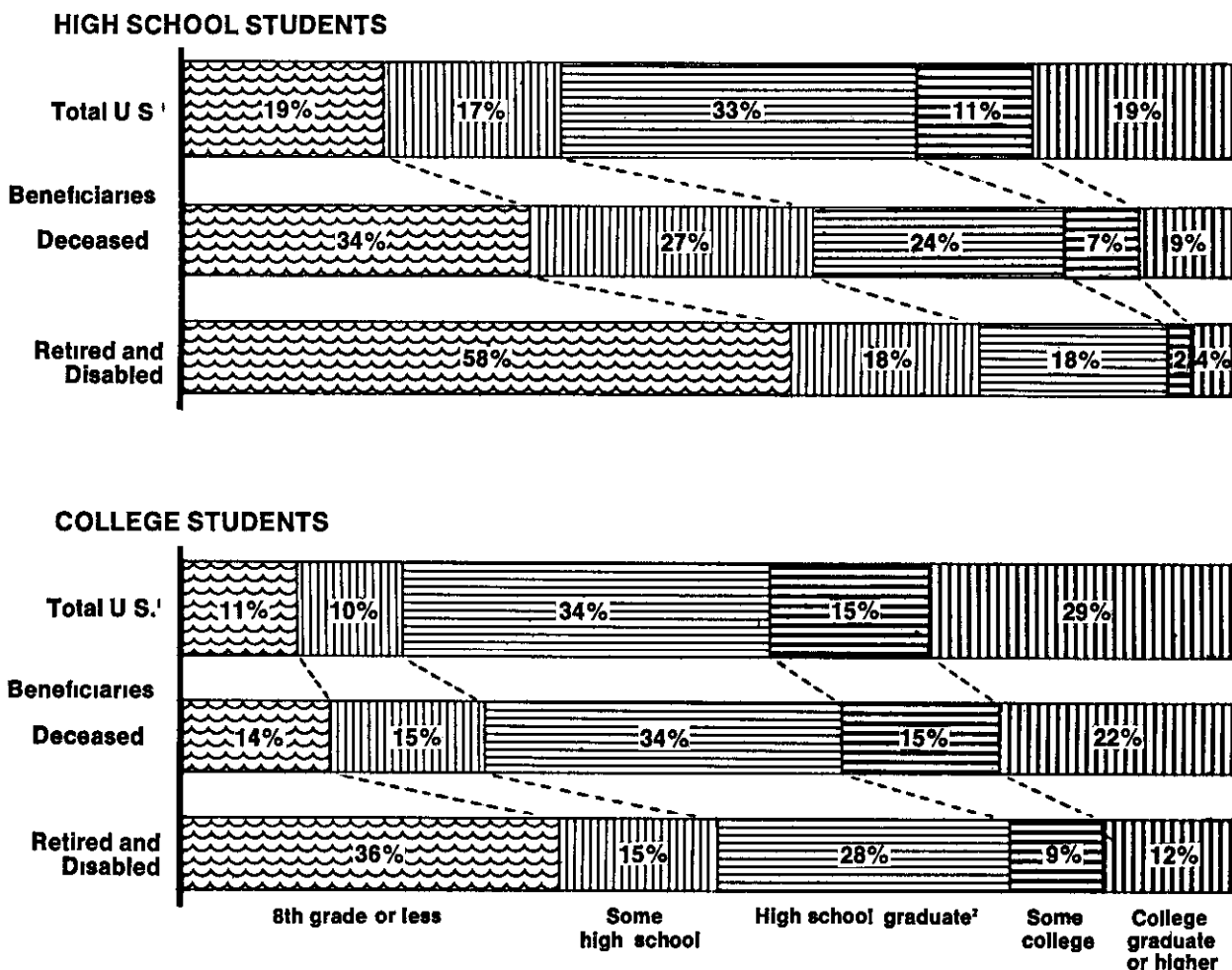
When college student beneficiaries are compared with all college students in 1972, a similar pattern is apparent. Among college student beneficiaries, 19 percent of the fathers are college graduates, in the general population, 29 percent are college graduates. Examination of mothers' educational attainment shows that 13 percent of the mothers of college freshmen beneficiaries are college graduates, compared with 19 percent of the mothers of college freshmen in the general population (table 4).

*Educational background and basis of entitlement*—For parents of student beneficiaries entitled because of the death of a parent, educational attainment was consistently higher than it was for the parents of students with a retired or

disabled parent (table 5). Overall, 56 percent of the fathers of student beneficiaries are high school graduates, including 16 percent who are also college graduates.

About 62 percent of the deceased fathers or the husbands of deceased mothers were high school graduates, including 18 percent who had also finished college. Only 42 percent of disabled or retired fathers or the husbands of disabled or retired mothers had completed high school, including 10 percent who had a college degree. Deceased fathers might be expected to have a higher level of education than that of retired or disabled workers who, being older (with a median age over 60), went to school in a time of generally lower educational attainment.

CHART 2—Educational attainment of fathers of high school and college students in the total U.S. population and of student beneficiaries, by basis of entitlement, 1972-73 school year



<sup>1</sup> Bureau of the Census, 'Social and Economic Characteristics of Students, October 1972,' *Current Population Reports*, Series P 20, No. 260, table 10  
<sup>2</sup> Includes noncollege postsecondary education

Sixty-four percent of all mothers of student beneficiaries are high school graduates or more, and 12 percent are also college graduates. Sixty-eight percent of the widowed mothers are high school graduates, including 13 percent who also graduated from college. About 55 percent of the wives of disabled or retired wage earners had completed high school, with 9 percent also completing college.

*Parents' educational attainment and children's type of school*—Predictably, the level of school in which the student beneficiary is enrolled and the parent's educational attainment are strongly associated, as the figures below indicate. (The

| Parent/student characteristics | [Percent]  |                                    |                          |                                    |
|--------------------------------|--|------------------------------------|--------------------------|------------------------------------|
|                                | Educational attainment of parents, by basis for entitlement of student beneficiaries |                                    |                          |                                    |
|                                | High school graduate or more   |                                    | College graduate or more |                                    |
|                                | Death of parent  | Retirement or disability of parent | Death of parent          | Retirement or disability of parent |
| Parents of students in—        |  |                                    |                          |                                    |
| High school                    |  |                                    |                          |                                    |
| Father                         | 40   | 23                                 | 9                        | 4                                  |
| Mother                         | 45   | 33                                 | 6                        | 4                                  |
| College                        |  |                                    |                          |                                    |
| Father                         | 71   | 50                                 | 22                       | 12                                 |
| Mother                         | 76   | 64                                 | 16                       | 11                                 |
| Noncollege postsecondary       |  |                                    |                          |                                    |
| Father                         | 43   | 27                                 | 4                        | 11                                 |
| Mother                         | 49   | 43                                 | 2                        | 9                                  |

characteristics of high school students tend to resemble those of postsecondary students to the extent that the high school students go on with their education.)

Student beneficiaries in college were much more likely to have parents who had graduated from college or who were at least high school graduates than were noncollege students. Students in noncollege postsecondary schools—that is, vocational, secretarial, technical, and business—were more like high school students with respect to parents' educational attainment than they were like college students.

### Father's Occupation

The occupation of the student's father before he died, retired, or became disabled is another

TABLE 5—Educational attainment of parent. Number and percentage distribution of student beneficiaries, by basis for entitlement, 1972-73 school year

| Educational attainment of parent         | Student beneficiaries, by basis for entitlement |                 |                                    |
|--|---|-----------------|------------------------------------|
|  | Total   | Death of parent | Retirement or disability of parent |
| <i>Father</i>                            |   |                 |                                    |
| Total number (in thousands) <sup>1</sup> | 512   | 357             | 156                                |
| Total percent                            | 100   | 100             | 100                                |
| 8 years or less                          | 27  | 20              | 42                                 |
| High school (in years)                   |   |                 |                                    |
| 1-3                                      | 17  | 17              | 15                                 |
| 4  | 25  | 28              | 21                                 |
| Technical or business                    | 4   | 4               | 4                                  |
| College (in years)                       |   |                 |                                    |
| 1-3                                      | 11  | 13              | 7                                  |
| 4 or more                                | 16  | 18              | 10                                 |
| <i>Mother</i>                            |   |                 |                                    |
| Total number (in thousands) <sup>1</sup> | 523   | 354             | 168                                |
| Total percent                            | 100   | 100             | 100                                |
| 8 years or less                          | 19  | 16              | 26                                 |
| High school (in years)                   |   |                 |                                    |
| 1-3                                      | 17  | 16              | 19                                 |
| 4  | 36  | 37              | 32                                 |
| Technical or business                    | 5   | 6               | 5                                  |
| College (in years)                       |   |                 |                                    |
| 1-3                                      | 11  | 12              | 9                                  |
| 4 or more                                | 12  | 13              | 9                                  |

<sup>1</sup> Excludes parents not household members in 1972 and those for whom education is not known.

measure of the social status of student beneficiaries.<sup>12</sup> Generally, the fathers of student beneficiaries were found to have had occupations before their death, disability, or retirement that can be classified as blue-collar or low white-collar. Overall, more than two-thirds of student beneficiary fathers worked in occupations other than high white-collar.

Of the deceased fathers and the husbands of deceased mothers, 15 percent had been in professional and technical occupations and an additional 19 percent were managers, officials, and proprietors—with more than one-third in the higher white-collar jobs (table 6). Fourteen percent were in clerical and sales (low white-collar) occupations. About 47 percent had worked in blue-collar occupations. 20 percent were craftsmen, 16 per-

<sup>12</sup> The "occupation" is the previous occupation of the deceased fathers or of disabled or retired fathers not now working, or the current occupation of fathers with deceased, disabled, or retired wives. "White-collar" occupations include those in professional or technical jobs, managers, officials, proprietors, and clerical and salespersons. "Blue-collar" occupations include craftsmen, foremen, operatives, laborers, and service workers. "Low white collar" refers to clerical and sales occupations.



cent operatives, 6 percent service workers, and 5 percent laborers. Five percent were farmers.

The retired or disabled fathers were less likely to have been in professional or technical positions or managers, officials, or proprietors—21 percent altogether. They were more likely than the deceased to have worked in blue-collar occupations—63 percent, compared with only 47 percent. The larger proportion of disabled or retired fathers who had worked in blue-collar occupations probably reflects the generally more dangerous or more physically demanding nature of such occupations.

Among the fathers of college freshmen in general in 1972, close to half were in the higher white-collar occupations, as the following figures show.

| Father's occupation <sup>1</sup> | Percent |
|----------------------------------|---------|
| Total                            | 100     |
| High white-collar <sup>2</sup>   | 48      |
| Skilled                          | 12      |
| Semiskilled                      | 7       |
| Unskilled                        | 4       |
| Military career                  | 2       |
| Farmer or forester               | 6       |
| Other <sup>3</sup>               | 19      |
| Unemployed                       | 2       |

<sup>1</sup> Adapted from the American Council On Education, *The American Freshman: National Norms for Fall 1972*, Vol. 7 No. 5, 1972, p. 35. Includes student beneficiaries.

<sup>2</sup> Eleven occupations (professional and technical workers, managers, officials, and proprietors).

<sup>3</sup> Includes a variety of white collar and blue collar occupations.

This proportion is greater than that shown in table 6 for the fathers of freshmen student beneficiaries. Higher occupational levels were found for deceased fathers than for disabled or retired fathers (34 percent, compared with 20 percent).

The previous occupation of the student beneficiary's father is related to the type of school the student attended. College students who are children of deceased workers are more likely to have had fathers with high white-collar jobs (professional, technical, or managerial) than are those in high schools or noncollege postsecondary schools—40 percent, compared with 19 percent and 18 percent, respectively. College students who are children of disabled or retired workers are also more likely to have had fathers with high white-collar jobs than those in the other two types of schools—27 percent, compared with 8 percent for the high school students and 14 percent for the noncollege students in postsecondary schools.

Whether male or female children receive higher education has been found to be variously related

TABLE 6—Preentitlement occupation of father. Number and percentage distribution of all student beneficiaries and of college freshmen beneficiaries, by basis for entitlement, 1972-73 school year.

| Preentitlement occupation of father <sup>1</sup>                                     | Student beneficiaries, by basis for entitlement |                                    |                          |                                    |
|--|---|------------------------------------|--------------------------|------------------------------------|
|  | All students                                    |                                    | College freshmen         |                                    |
|  | Death of parent                                 | Retirement or disability of parent | Death of parent          | Retirement or disability of parent |
| Total number (in thousands) <sup>2</sup>   | 366   | 104                                | 81                       | 19                                 |
| Total percent  | 100   | 100                                | 100                      | 100                                |
| High white-collar<br>Professional, technical,<br>Managers, officials,<br>proprietors | 34<br>15  | 21<br>8                            | 34<br>16                 | 20<br>9                            |
| Low white-collar<br>Clerical<br>Sales  | 19<br>14<br>6<br>8                              | 13<br>9<br>5<br>4                  | 18<br>15<br>7<br>8       | 11<br>9<br>3<br>6                  |
| Blue-collar<br>Craftsmen<br>Operatives<br>Service<br>Laborers                        | 47<br>20<br>16<br>6<br>5                        | 63<br>24<br>20<br>8<br>11          | 46<br>19<br>17<br>5<br>5 | 60<br>23<br>17<br>8<br>12          |
| Farmers  | 5   | 7                                  | 5                        | 11                                 |

<sup>1</sup> Represents occupation before 1972 for deceased, disabled, or retired father and current occupation for husband of deceased, disabled, or retired mother.  
<sup>2</sup> Excludes fathers for whom only the retirement occupation was known, fathers working in a job under disability rehabilitation program, fathers who were husbands of retired or disabled women and who did not work in 1972, fathers not members of the household in 1972, and those for whom occupation was not known.

to a number of socioeconomic factors. Among student beneficiaries, survey data show that, for white-collar fathers, the proportion of student beneficiaries attending college is similar for male and female students—81 percent and 86 percent, respectively. For blue-collar fathers there is some evidence that the proportion of daughters in college is higher (66 percent) than for sons (59 percent).

### 'Practical' and 'Idealistic' Orientation

Student beneficiaries in college were asked during the survey which of these two statements more closely represented their own views about college and careers:

1 For me, college is mainly a practical matter. With a college education I can earn more money, have a more interesting career, and enjoy a better position in society.

2 I'm not really concerned with the practical benefits of college. I suppose I take them for granted. College for me means something more intangible, perhaps the opportunity to change things rather than make out well within the existing system.

This question was included in the student beneficiary survey because the 1969 *Fortune* survey had found it related to other attitudes as well as to socioeconomic background. Children from families headed by blue-collar workers were found more likely to view college as a practical matter than were children of white-collar workers.<sup>13</sup>

TABLE 7—Factors in choosing major field of study. Number and percentage distribution of college student beneficiaries, by reason for choice and sex, 1972-73 school year

| Reason for choosing major field of study                | College student beneficiaries |      |        |
|---|-------------------------------|------|--------|
|   | Both sexes                    | Male | Female |
| Total number (in thousands) <sup>1</sup>                | 420                           | 211  | 209    |
| <i>The job it would lead to pays well</i>               |                               |      |        |
| Total percent   | 100                           | 100  | 100    |
| Very important  | 31                            | 34   | 29     |
| Somewhat important                                      | 48                            | 47   | 50     |
| Not important   | 20                            | 19   | 21     |
| Mean importance score <sup>2</sup>                      | 2.1                           | 2.2  | 2.1    |
| <i>The course of study is interesting</i>               |                               |      |        |
| Total percent   | 100                           | 100  | 100    |
| Very important  | 80                            | 75   | 84     |
| Somewhat important                                      | 19                            | 22   | 15     |
| Not important   | 2                             | 3    | 1      |
| Mean importance score <sup>2</sup>                      | 2.8                           | 2.7  | 2.8    |
| <i>The kind of work it would lead to is interesting</i> |                               |      |        |
| Total percent   | 100                           | 100  | 100    |
| Very important  | 85                            | 80   | 89     |
| Somewhat important                                      | 13                            | 17   | 10     |
| Not important   | 2                             | 3    | 1      |
| Mean importance score <sup>2</sup>                      | 2.8                           | 2.8  | 2.9    |
| <i>It is what I can best afford</i>                     |                               |      |        |
| Total percent   | 100                           | 100  | 100    |
| Very important  | 7                             | 6    | 8      |
| Somewhat important                                      | 16                            | 15   | 16     |
| Not important   | 77                            | 78   | 76     |
| Mean importance score <sup>2</sup>                      | 1.3                           | 1.3  | 1.3    |

<sup>1</sup> Includes less than 3 percent in graduate school.

<sup>2</sup> Represents the weighted average of the importance ranks—not important, 1, somewhat important, 2, very important, 3. College student beneficiaries were asked how important each factor was in influencing their decision to take their major field of study.

In the earlier study, 58 percent reported themselves as “practical-minded,” compared with 76 percent of the college student beneficiaries. This relatively high proportion for student beneficiaries is probably related to their lower socioeconomic status. On the other hand, the idealistic/practical orientation of students may have changed in the 4 years between 1969 and 1973.

<sup>13</sup> “What They Believe,” *Fortune*, January 1969, page 70ff. Conducted by Daniel Yankelovich, Inc., this survey included a sample of 324 college men and women.

Student beneficiary orientations may thus reflect only a longitudinal effect shared by all students rather than any socioeconomic factor specific to them.

The income level of student beneficiary families is such that they cannot take the practical benefits “for granted,” in the words of the second statement. In terms of the proportion that were practical-minded, no marked differences in these attitudes were found between male and female students, nor between orphaned children and those with living parents.

Students’ answers about factors considered in choosing a college major might also reflect a “practical” orientation (table 7). College student beneficiaries consider it very important that the course of study be interesting (80 percent) and that it lead to interesting work (85 percent). Only 31 percent consider it important that the program of study would lead to jobs that pay well. Apparently the student who reports attending college for practical reasons does not intend it to mean sacrifice of his personal interest in his career and his course of study for the sake of well-paying jobs. And even less significant was the question whether the program of study was what they could best afford. Only 23 percent consider this factor very or even somewhat important.

## EDUCATIONAL CHARACTERISTICS

### Type of School

Student beneficiaries must be in full-time attendance in an accredited school—secondary school, college, or other postsecondary institution. These schools include public, nonprofit, and proprietary (profitmaking) schools but exclude mail-order establishments, since study at such places is not full time. The type or level of school attended is not a condition of benefit receipt, nor is the student constrained to spend benefits for any special purpose such as for tuition or dormitory costs. Thus, since there are no constraints, the ways in which beneficiaries pursue their education are reflections only of their academic preferences, opportunities, and available resources.

TABLE 8—School attended Number and percentage distribution of student beneficiaries, by sex, 1972-73 school year

| Type of school attended          | Student beneficiaries |      |        |
|----------------------------------|-----------------------|------|--------|
|                                  | Both sexes            | Male | Female |
| Total number (in thousands)      | 588                   | 307  | 281    |
| Total percent                    | 100                   | 100  | 100    |
| High school..                    | 21                    | 26   | 16     |
| Business, secretarial            | 2                     | 1    | 3      |
| Technical vocational             | 5                     | 4    | 7      |
| 2-year, junior college..         | 18                    | 17   | 18     |
| 4-5 year college <sup>1</sup> .. | 54                    | 52   | 56     |

<sup>1</sup> Includes less than 3 percent in graduate school

As the data in table 8 show, 21 percent of the student beneficiaries were in high school in the 1972-73 school year, with a higher proportion for male students (26 percent) than for female students (16 percent). These students are overwhelmingly (89 percent) in academic or general high schools. Only 8 percent are in high schools specializing in trade, vocational, business, or secretarial training.

Seventy-two percent of the student beneficiaries were in college, with the proportion somewhat higher for female students than for male students (74 percent and 69 percent, respectively). One-fourth of the college students, both male and female, were in 2-year or junior colleges. This proportion is slightly higher, overall, than the 21 percent of the general population of full-time students, aged 18-21 in 2-year colleges, with female students accounting for the difference. 25 percent of the student beneficiaries in junior college, compared with 19 percent in the general population.<sup>14</sup> Seventy-three percent of the student beneficiaries in junior college reported it was likely that they would go on to a 4-year college, and 54 percent said very likely. More of the male students than the female students by about 15 percentage points indicated their intention to continue their college education past the 2-year degree level.

About 7 percent of the student beneficiaries were in noncollege postsecondary schools. 2 percent in business or secretarial schools and 5 percent in technical or vocational schools. Nearly two-thirds were female students, of whom 70 per-

<sup>14</sup> Bureau of the Census, "Undergraduate Enrollment in 2-year and 4-year Colleges October 1972," *Current Population Reports*, Series P-20, No 257, November 1973, page 15

cent were in technical or vocational curriculums. Expectably, about 80 percent of the noncollege postsecondary male students were in technical or vocational schools.

*Basis of entitlement and type of school*—The data that follow show no differences between orphaned children and the children of retired or disabled workers in the type of school attended.

| Type of school              | Basis for entitlement |                                    |
|-----------------------------|-----------------------|------------------------------------|
|                             | Death of parent       | Retirement or disability of parent |
| Total number (in thousands) | 401                   | 187                                |
| Total percent               | 100                   | 100                                |
| High school ..              | 21                    | 23                                 |
| Business                    | 2                     | 2                                  |
| Technical                   | 5                     | 5                                  |
| 2 year, junior college      | 17                    | 18                                 |
| 4-5 year college ..         | 55                    | 52                                 |

This lack of difference is worth noting, given the differences in the fathers' occupational status and the levels of parents' education already noted.

*Public or private school*—A measure related to cost of school attended is whether the school is under public or private auspices. Ninety-five percent of the high school student beneficiaries attend public school, an expectably high proportion, with universal public education at the secondary level (table 9). This proportion is slightly higher than the proportion (92 percent) in the general population.<sup>15</sup> Possibly the families of student beneficiaries are less able to afford private secondary schools, whether denominational or those that specialize in preparing students for college.

Of college beneficiaries, 71 percent attend publicly controlled institutions, about 3 percent less than the proportion in the general population of college students.<sup>16</sup> Since publicly controlled colleges are generally less expensive than private colleges, the direction of the difference, slight though it is, is an anomaly in light of the low income levels of student beneficiaries and their families.

Student beneficiaries in noncollege postsecond-

<sup>15</sup> Bureau of the Census, *Current Population Reports*, Series P-20, No 260, *op cit*, page 22

<sup>16</sup> Bureau of the Census, *ibid*, page 42

TABLE 9—Attendance in public or private school Number and percentage distribution of student beneficiaries, by type of school and sex, 1972-73 school year

| Public or private school    | Type of school |             |                      |                          |
|-----------------------------|----------------|-------------|----------------------|--------------------------|
|                             | Total          | High school | College <sup>1</sup> | Noncollege postsecondary |
| Both sexes                  |                |             |                      |                          |
| Total number (in thousands) | 588            | 126         | 420                  | 41                       |
| Total percent               | 100            | 100         | 100                  | 100                      |
| Public                      | 75             | 95          | 71                   | 54                       |
| Private                     | 25             | 5           | 29                   | 46                       |
| Male                        |                |             |                      |                          |
| Total number (in thousands) | 307            | 80          | 211                  | 15                       |
| Total percent               | 100            | 100         | 100                  | 100                      |
| Public                      | 76             | 94          | 70                   | 55                       |
| Private                     | 24             | 6           | 30                   | 45                       |
| Female                      |                |             |                      |                          |
| Total number (in thousands) | 281            | 46          | 209                  | 27                       |
| Total percent               | 100            | 100         | 100                  | 100                      |
| Public                      | 73             | 96          | 71                   | 53                       |
| Private                     | 27             | 4           | 29                   | 47                       |

<sup>1</sup> Includes less than 3 percent in graduate school

ary schools are about as likely to attend public (54 percent) as private (46 percent) institutions. Nearly nine-tenths of the noncollege postsecondary schools are under private control—the great majority of them proprietary.<sup>17</sup> Since these schools, especially those offering home-study programs, do not typically require full-time attendance, the low proportion of student beneficiaries in privately controlled technical, vocational, business, or secretarial schools is not surprising.

### Plans of High School Students

Student beneficiaries who were high school seniors were asked about their most likely activity after they leave high school. About 40 percent reported that college was their single most likely post-high-school activity.

<sup>17</sup> National Center for Educational Statistics, *Directory of Post-Secondary Schools with Occupational Programs, 1971, 1973*, page XIX.

| Post high-school plans      | Percent |
|-----------------------------|---------|
| Total percent               | 100     |
| Will continue education     | 57      |
| College                     | 39      |
| 2-year                      | 19      |
| 4 year                      | 20      |
| Noncollege postsecondary    | 17      |
| Other                       | 1       |
| Will not continue education | 42      |
| Work                        | 34      |
| Enter military              | 4       |
| Keep house                  | 4       |

Among the 631,000 high school seniors in the general population aged 18-34, however, only 28 percent plan to go to college, as the figures that follow indicate.<sup>18</sup>

| College plans                               | Percent |
|---|---------|
| Total                                       | 100     |
| Will continue education in college          | 28      |
| 2-year                                      | 16      |
| 4-year                                      | 12      |
| May attend or do not plan to attend college | 67      |
| Plans not reported                          | 5       |

Used as a comparison group is the percentage who plan to attend (excluding those who may attend), because the overall proportion planning to attend (45.4 percent of all seniors) is consistent with the independent finding of the Office of Education's National Longitudinal Study, which showed that 45.5 percent expected to go to college.<sup>19</sup> Both the 40-percent rate for the student beneficiaries and the 28 percent for those in the general population are substantially lower than the 45-percent rate for seniors of all ages, as might be expected since the high school senior aged 18 or older is not on the normal schedule of completing secondary education.

Student beneficiaries comprise a surprisingly large proportion (15 percent) of the general high school population aged 18-21. Beneficiary children aged 16-17 are about 10 percent of all children of those ages. Among high school seniors aged

<sup>18</sup> Bureau of the Census, "College Plans of High School Seniors—October 1972," *Current Population Reports*, Series P-20, No. 272, August 1973, page 13. Data from the Bureau of the Census, *Current Population Reports*, Series P-20, No. 260, table 14, indicate that more than 90 percent of these students are aged 18-21. If the 10 percent aged 22-34 do not all plan to attend, of the remaining 90 percent aged 18-21, 31 percent would plan to attend.

<sup>19</sup> U.S. Office of Education, *National Longitudinal Study of the High School Class of 1972, Tabular Summary of Student Questionnaire Data, 1974*, vol. 1, pages 410-411.

18-21, student beneficiaries represent about 17 percent. Twenty-one percent of all high school seniors aged 18-34 who intend to go to college are student beneficiaries. The proportion (28 percent) of high school seniors in that age group intending to go to college is thus necessarily inflated by the large number of student beneficiaries included.<sup>20</sup>

It appears that the age at which a high school student is a senior affects his intent with respect to higher education and that this intent differs for those for whom benefits would be available after high school. A future report will explore the impact of the age limitation on receiving benefits for the student who graduates relatively late from high school.

### Living Arrangements

Student benefits are paid on a year-round basis and regardless of the living arrangements of the student during the school year. Unlike recipients of scholarships and educational grants, which are tied to the choice and cost of school attended, the student beneficiary is free to choose the school and the living arrangements without effect on his benefits. Almost all student beneficiaries in high school live at home—a reflection of the fact that they typically attend public schools near their homes (table 10). The 2 percent living in a rented room or apartment presumably have established patterns of independence from their parents. The remainder are away at school, or in some other living arrangement.

Two-thirds of the noncollege postsecondary students lived in the home of their parents. Eighteen percent were living in private rooms or apartments, 13 percent in dormitories, and 2 percent in all other dwellings. Relatively few live in dormitories since they are generally not provided by vocational, technical, business, or secretarial schools.

College student beneficiaries had the greatest variety of types of living arrangements. Forty-two percent live in their parents' home, 19 percent in rented rooms or apartments, 36 percent in dormitories, and 2 percent in such other

TABLE 10—School-year living arrangements: Number and percentage distribution of student beneficiaries, by type of school and sex, 1972-73 school year

| Living arrangement          | Type of school |             |                      |                          |
|-----------------------------|----------------|-------------|----------------------|--------------------------|
|                             | Total          | High school | College <sup>1</sup> | Noncollege postsecondary |
| Both sexes                  |                |             |                      |                          |
| Total number (in thousands) | 588            | 125         | 420                  | 41                       |
| Total percent               | 100            | 100         | 100                  | 100                      |
| Parents home                | 55             | 96          | 42                   | 67                       |
| Dormitory                   | 27             | 1           | 36                   | 13                       |
| Rented room or apartment    | 16             | 2           | 19                   | 18                       |
| Fraternity, sorority        | 2              | 0           | 2                    | 1                        |
| Other                       | 0              | 1           | 0                    | 1                        |
| Male                        |                |             |                      |                          |
| Total number (in thousands) | 307            | 80          | 211                  | 16                       |
| Total percent               | 100            | 100         | 100                  | 100                      |
| Parents home                | 8              | 97          | 43                   | 64                       |
| Dormitory                   | 23             | 1           | 32                   | 11                       |
| Rented room or apartment    | 17             | 2           | 22                   | 24                       |
| Fraternity, sorority        | 2              | 0           | 2                    | 0                        |
| Other                       | 0              | 1           | 0                    | 2                        |
| Female                      |                |             |                      |                          |
| Total number (in thousands) | 281            | 46          | 209                  | 27                       |
| Total percent               | 100            | 100         | 100                  | 100                      |
| Parents home                | 52             | 95          | 41                   | 68                       |
| Dormitory                   | 32             | 1           | 41                   | 15                       |
| Rented room or apartment    | 14             | 3           | 16                   | 19                       |
| Fraternity, sorority        | 2              | 0           | 2                    | 1                        |
| Other                       | 0              | 0           | 0                    | 1                        |

<sup>1</sup> Includes less than 3 percent in graduate school.

accommodations as fraternity or sorority houses. These data can be compared with information on college students in general in the fall of 1971.<sup>21</sup> Forty-three percent of all college students lived at home and 32 percent in college dormitories, proportions similar to those found for student beneficiaries. Only 13 percent lived in rented rooms or apartments, and 12 percent were in such other living arrangements as fraternity or sorority housing. Possibly the student beneficiary is not likely to be able to afford such fraternal housing and chooses more often the economies of a rented room or an apartment (probably shared).<sup>22</sup>

Among those in postsecondary schools, differences between male and female students in living

<sup>21</sup> Bureau of the Census, "Characteristics of American Youth 1972," *Current Population Reports*, Series P-23, No. 44, March 1973, page 8.

<sup>22</sup> Data for all college students include those married and living in apartments, but beneficiary college students living in apartments must be assumed to be unmarried.

<sup>20</sup> After adjustment by excluding student beneficiaries, an estimated 26 percent of nonbeneficiary high school seniors aged 18-34 plan higher education.

arrangements suggest a pattern of less freedom for women students, as shown in the following tabulation that gives the percentages choosing specific living arrangements. Male students were

| Living arrangement and sex | Percent of student beneficiaries |                          |
|----------------------------|----------------------------------|--------------------------|
|                            | College                          | Noncollege postsecondary |
| Parents' home              |                                  |                          |
| Male ..                    | 43                               | 64                       |
| Female ..                  | 41                               | 68                       |
| Dormitory                  |                                  |                          |
| Male ..                    | 32                               | 11                       |
| Female ..                  | 41                               | 15                       |
| Rented room                |                                  |                          |
| Male ..                    | 22                               | 24                       |
| Female ..                  | 16                               | 15                       |
| Fraternity, sorority       |                                  |                          |
| Male ..                    | 2                                | 0                        |
| Female ..                  | 2                                | 1                        |
| Other                      |                                  |                          |
| Male ..                    | 0                                | 2                        |
| Female ..                  | 0                                | 1                        |

more likely than female students to live in a rented room, female students were more likely to live in school-controlled housing.

### Highest Intended Degree

Another parameter on which to compare similarities or differences between student beneficiaries and students in the general population is their highest intended degree. Forty-six percent of

TABLE 11—Highest intended degree. Number and percentage distribution of college freshmen beneficiaries and of college freshmen in general population, by sex, 1972-73 school year

| Highest intended degree or certificate     | College freshmen beneficiaries |      |        | All college freshmen <sup>1</sup> |      |        |
|--|--------------------------------|------|--------|-----------------------------------|------|--------|
|  | Both sexes                     | Male | Female | Both sexes                        | Male | Female |
| Total number (in thousands) . . .          | 126                            | 61   | 65     | (?)                               | (?)  | (?)    |
| Total percent . . . .                      | 100                            | 100  | 100    | 100                               | 100  | 100    |
| High school diploma . . .                  | 1                              | 1    | 0      | 3                                 | 3    | 4      |
| Vocational, technical, certificate . . . . | 4                              | 3    | 4      | (?)                               | (?)  | (?)    |
| Associate or equivalent . . .              | 10                             | 7    | 12     | 8                                 | 7    | 10     |
| Bachelor . . . . .                         | 34                             | 34   | 34     | 37                                | 34   | 41     |
| Teacher's certificate . . .                | 2                              | 0    | 5      | (?)                               | (?)  | (?)    |
| Master . . . . .                           | 30                             | 29   | 31     | 27                                | 26   | 29     |
| Doctorate . . . . .                        | 7                              | 9    | 5      | 9                                 | 11   | 7      |
| Medical doctor or dentist . .              | 5                              | 8    | 3      | 7                                 | 10   | 4      |
| Divinity . . . . .                         | 0                              | 0    | 0      | 0                                 | 1    | 0      |
| Law . . . . .                              | 4                              | 7    | 1      | 5                                 | 7    | 2      |
| Other <sup>4</sup> . . . . .               | 4                              | 2    | 6      | 3                                 | 3    | 3      |

<sup>1</sup> Based on data from American Council on Education, *op cit*, Vol. 7, No. 5, pages 20, 28, and 36. Includes 3 percent who are student beneficiaries.  
<sup>2</sup> Data not available.  
<sup>3</sup> Excluded from American Council on Education survey.  
<sup>4</sup> Includes certified public accountants, paramedical or technical certificates, and a variety of non-degree-designated occupations.

TABLE 12—Major field of study. Number and percentage distribution of college student beneficiaries and of college students in general population, by sex, 1972-73 school year

| Current major                         | College student beneficiaries <sup>1</sup> |      |        | All college students <sup>2</sup> |       |        |
|---------------------------------------|--|------|--------|-----------------------------------|-------|--------|
|                                       | Both sexes                                 | Male | Female | Both sexes                        | Male  | Female |
| Total number (in thousands) . . . . . | 420  | 211  | 209    | 6,137                             | 3,498 | 2,639  |
| Total percent . . . . .               | 100  | 100  | 100    | 100                               | 100   | 100    |
| Education . . . . .                   | 20   | 11   | 28     | 13                                | 6     | 2      |
| Other humanities . . . . .            | 9  | 7    | 11     | 6                                 | 6     | 6      |
| English or journalism . . . .         | 5  | 5    | 5      | 4                                 | 3     | 3      |
| Social sciences . . . . .             | 16   | 17   | 15     | 13                                | 12    | 1      |
| Biological sciences . . . . .         | 6  | 8    | 4      | 4                                 | 4     | 4      |
| Health or medical profession .        | 9  | 4    | 13     | 9                                 | 6     | 1      |
| Engineering . . . . .                 | 3  | 6    | 0      | 5                                 | 8     | 8      |
| Business or commerce . . . .          | 14   | 19   | 9      | 17                                | 22    | 1      |
| Physical or earth sciences . . .      | 2  | 3    | 1      | 2                                 | 3     | 3      |
| Law . . . . .                         | 2  | 3    | 0      | 2                                 | 3     | 3      |
| Mathematics or statistics . . .       | 2  | 2    | 2      | 3                                 | 4     | 4      |
| Agriculture or forestry . . . .       | 1  | 3    | 0      | 1                                 | 2     | 2      |
| Other . . . . .                       | 11   | 12   | 11     | 20                                | 21    | 1      |

<sup>1</sup> Includes less than 3 percent in graduate school.  
<sup>2</sup> Based on data from Bureau of the Census, Series P-20, No. 260, page 54. About 9 percent are student beneficiaries. Excludes students beyond the fourth year of college. Data represent students aged 14-34 of whom almost 70 percent are aged 18-21.

freshmen college student beneficiaries plan to get graduate or professional degrees—master or doctorate or medical, legal, or divinity. Forty-eight percent of all college freshmen intend such advanced work (table 11).

Differences between male and female students in intended highest degree were similar for both the general and beneficiary freshmen college population. 42 percent of all first-year college women intend to take graduate or professional degrees, compared with 55 percent for freshmen men. Similarly, beneficiary women starting college were less likely to plan graduate or professional degrees (40 percent) than were men (53 percent).

### Major Field of Study

Student beneficiaries in college were found studying education, humanities, and social-science-related subjects more frequently than college students generally, with male beneficiary students engaged in these studies more often than male college students generally (table 12). Among college students in general, women were more likely to be found in education and in health or medical studies than men (who are more likely to study engineering or business or commerce), beneficiary women were slightly more likely to pursue education courses than were college women.

TABLE 13—Current average grades Number and percentage distribution of college students and college freshmen among student beneficiaries and of all freshmen in general population, by sex, 1972-73 school year

| Average grade                         | College student beneficiaries |      |        |            |      |        | All freshmen <sup>1</sup> |      |        |
|---------------------------------------|-------------------------------|------|--------|------------|------|--------|---------------------------|------|--------|
|                                       | All <sup>1</sup>              |      |        | Freshmen   |      |        | Both sexes                | Male | Female |
|                                       | Both sexes                    | Male | Female | Both sexes | Male | Female |                           |      |        |
| Total number (in thousands) . . . . . | 420                           | 211  | 209    | 126        | 61   | 65     | (?)                       | (?)  | (?)    |
| Total percent . . . . .               | 100                           | 100  | 100    | 100        | 100  | 100    | 100                       | 100  | 100    |
| A or A+ . . . . .                     | 5                             | 4    | 6      | 6          | 4    | 7      | 11                        | 9    | 13     |
| A- or B+ . . . . .                    | 17                            | 15   | 20     | 15         | 12   | 17     | 18                        | 16   | 21     |
| B . . . . .                           | 32                            | 30   | 33     | 29         | 31   | 27     | 25                        | 23   | 26     |
| B- or C+ . . . . .                    | 26                            | 29   | 24     | 20         | 23   | 17     | 26                        | 27   | 24     |
| C . . . . .                           | 16                            | 18   | 14     | 20         | 23   | 17     | 15                        | 18   | 12     |
| Less than C . . . . .                 | 3                             | 4    | 2      | 5          | 6    | 5      | 5                         | 7    | 4      |

<sup>1</sup> Includes less than 3 percent in graduate school  
<sup>2</sup> Based on data from U S Office of Education, *National Longitudinal Study of the High School Class of 1972* Preliminary data for October 1973

from the National Center for Educational Statistics Includes all post secondary school students from the high school class of 1972  
<sup>3</sup> Data not available

generally Among student beneficiaries, smaller proportions overall were studying engineering, law, business or commerce, and mathematics or statistics, in comparison with the general population

TABLE 14—High school grades of college freshmen Number and percentage distribution of college freshmen beneficiaries and of college freshmen in general population, by sex, 1972-73 school year

| Average grade                         | College freshmen beneficiaries |      |        | All college freshmen <sup>1</sup> |      |        |
|---------------------------------------|--------------------------------|------|--------|-----------------------------------|------|--------|
|                                       | Both sexes                     | Male | Female | Both sexes                        | Male | Female |
| Total number (in thousands) . . . . . | 126                            | 61   | 65     | (?)                               | (?)  | (?)    |
| Total percent . . . . .               | 100                            | 100  | 100    | 100                               | 100  | 100    |
| A or A+ . . . . .                     | 9                              | 6    | 11     | 7                                 | 5    | 9      |
| A- or B+ . . . . .                    | 23                             | 17   | 28     | 29                                | 24   | 36     |
| B . . . . .                           | 28                             | 29   | 27     | 26                                | 24   | 28     |
| B- or C+ . . . . .                    | 23                             | 23   | 22     | 29                                | 34   | 22     |
| C . . . . .                           | 16                             | 22   | 11     | 9                                 | 12   | 6      |
| Less than C . . . . .                 | 1                              | 2    | 1      | 1                                 | 1    | 0      |

<sup>1</sup> Based on data from American Council on Education, *op cit*, Vol 7, No 5, 1972, pages 20, 28, and 36 About 8 percent are student beneficiaries  
<sup>2</sup> Data not available

### Grade-Point Average of College Students

Student beneficiaries who are attending college generally have high current grade-point averages More than half had grades of B or better (table 13) Freshmen student beneficiaries were as likely to have grades of B or better as were freshmen students generally Forty-seven percent of the male freshmen beneficiaries had B or better, compared with 48 percent of male freshmen in general, for female freshmen, the corresponding proportions are 51 percent and 60 percent<sup>23</sup> The high school grades of beneficiary freshmen were found to be slightly lower than those of freshmen generally (table 14)

Female college student beneficiaries had better grades than did the male students 49 percent of the male students but 59 percent of the female students had B or better (table 13) Among beneficiary freshmen, the difference in grades was much less sharp (51 percent of the female students and 47 percent of the male students had such high grades) than the differences seen for all freshmen or for beneficiary college students

<sup>23</sup> Both sets of data represent the students who reported on grades Informal communication from the American Council on Education indicates a close correspondence between school records and the student's own report of grades

### SCHOOL COSTS AND STUDENT FINANCES

The question "What do student beneficiaries pay for education?" is most meaningful, of course, when addressed to those enrolled at the post-secondary level, where substantial charges for tuition, fees, and books are typical<sup>24</sup> Direct costs do exist, however, at the secondary school level Almost 60 percent of the student beneficiaries in high school reported some costs for attending school (table 15) Except for a few living away from home at school, such costs were low, especially in relation to the costs of higher education

Students in noncollege postsecondary schools were paying a median \$1,220 for their education,

<sup>24</sup> School costs do not include the opportunity cost of completing high school or of pursuing postsecondary levels of education that is incurred when (possibly) earnings are forgone Costs were not adjusted for student aid

TABLE 15—School costs Number and percentage distribution of student beneficiaries, by type of school, 1972-73 school year

| Type of cost                               | Type of school |         |                          |
|--|----------------|---------|--------------------------|
|  | High school    | College | Noncollege postsecondary |
| Total (in thousands)                       | 126            | 420     | 41                       |
| Total percent                              | 100            | 100     | 100                      |
| No cost                                    | 41             | 3       | 4                        |
| With cost <sup>1</sup>                     | 59             | 97      | 96                       |
| Tuition, fees, and books                   | 43             | 97      | 97                       |
| Room and board                             | 3              | 50      | 31                       |
| Commuting, travel, and private health fees | 42             | 13      | 15                       |
| Median nonzero cost                        | \$170          | \$1,810 | \$1,220                  |

<sup>1</sup> Represents those reporting on one or more cost item. Includes a few for whom details of cost were not fully reported

an amount both higher than that paid by those in high school and more heavily composed of costs for tuition and living expenses. Those in college experienced even higher costs and were more likely to have costs for room and board than were the noncollege postsecondary students.

The question of what beneficiary students pay can also be related to what students in general pay. In this form, the answers are especially interesting, given the basic differences in the income picture of these two groups of students. By definition, family income for beneficiary students has been reduced by the death, disability, or retirement of the worker. The traditional picture of the student paying for higher education from family contributions (that is, the father's earnings), own earnings, and such scholarships or aid as needed must be modified in the case of the beneficiary student. Social security benefits, including the students' benefits, are paid in lieu of regular earnings that support the family, and they are nearly always lower in amounts than the worker's previous earnings. Thus, the traditional picture changes for beneficiary students into one of family contribution from earnings-replacement income, the students' or parents' earnings (subject to the earnings-test provision), and scholarships or educational aid.

The median income of college student beneficiary families, including all benefits of the family (\$9,690), was lower than that of the general population (\$13,600) with college student children. Despite this lower basic ability of beneficiary families to afford higher education for their children, these beneficiary students appear not to

TABLE 16—Selected school charges Number and percentage distribution of college student beneficiaries, by attendance in public or private school and by type and amount of charge, 1972-73 school year

| Amount                                   | Public                         | Private |
|--|--------------------------------|---------|
|  | Tuition, fee, and book charges |         |
| Total number (in thousands) <sup>1</sup> | 293                            | 122     |
| Total percent                            | 100                            | 100     |
| \$1-249                                  | 14                             | 1       |
| 250-499                                  | 25                             | 3       |
| 500-749                                  | 29                             | 6       |
| 750-999                                  | 17                             | 5       |
| 1,000-1,499                              | 10                             | 13      |
| 1,500-1,999                              | 2                              | 18      |
| 2,000-2,499                              | 1                              | 25      |
| 2,500-2,999                              | 1                              | 18      |
| 3,000 or more                            | 0                              | 12      |
| Median                                   | \$600                          | \$2,080 |
| Mean                                     | 659                            | 2,020   |
| Room and board charges                   |                                |         |
| Total number (in thousands) <sup>1</sup> | 293                            | 122     |
| Without costs <sup>2</sup>               | 132                            | 43      |
| With costs <sup>3</sup>                  | 161                            | 78      |
| Total percent                            | 100                            | 100     |
| \$1-249                                  | 2                              | 2       |
| 250-499                                  | 6                              | 3       |
| 500-749                                  | 13                             | 7       |
| 750-999                                  | 22                             | 17      |
| 1,000-1,249                              | 36                             | 38      |
| 1,250-1,499                              | 12                             | 19      |
| 1,500 or more                            | 8                              | 14      |
| Median                                   | \$1,050                        | \$1,140 |
| Mean                                     | 1,010                          | 1,150   |

<sup>1</sup> Includes less than 3 percent in graduate school, includes a few for whom public or private school is unknown

<sup>2</sup> Represents primarily those living at home. Includes 9 percent living away from home

<sup>3</sup> Represents primarily those living in school, fraternal, or private housing. Includes 6 percent living at home paying room and board

differ sharply from college students generally with respect to school costs.<sup>25</sup>

### School Costs

The basic "cost" of college consists of tuition, fees, and books, students living away from home also pay for room and board. For tuition, fees, and books, the student beneficiaries had an average charge of \$650 in public colleges and \$2,020 in private schools (table 16). In the US college population, charges for tuition, fees, and books are only \$550 at public schools and \$2,100 at private colleges.<sup>26</sup> Since student beneficiaries

<sup>25</sup> Exactly comparable data on college costs are not available. Data for beneficiaries are average costs paid by the student, for the general population, however, the data represent average institutional charges, unweighted by the numbers of students attending.

<sup>26</sup> Communication from National Center for Educational Statistics. The sum of \$150 for books has been added to tuition and fees in both public and private institutions for comparability with student beneficiary data.



attend public colleges at about the same rate as the general population (71 percent and 74 percent, respectively), the two populations appear to have comparable basic costs of college

In both private and public colleges, student beneficiaries had room-and-board charges that correspond, on the average, to the institutional charges of the schools attended by college students generally (table 16) The average room-and-board charge of American colleges was \$1,025 for those under public control and \$1,144 for privately controlled schools<sup>27</sup> Student beneficiaries paid an average of \$1,010 at public colleges and \$1,150 at private schools For both populations, costs at private schools are about 10 percent higher

This general correspondence of the costs of college between beneficiaries and all students appears anomalous when one considers the relatively lower incomes of beneficiary families and their likely lower ability to help meet the costs of higher education A variety of compensating factors may account for the overall correspondence of costs The effect of the student benefit, the student's own earnings, a greater need for and receipt of aid, or extraordinary family contributions It is also possible that beneficiary students budget their available money between tuition and living costs by living at home or away or by attending a public or private school in such a way that the averages of these costs appear to correspond when viewed separately Future analysis will examine how beneficiary students combine work and a variety of scholarships and aids with options regarding type of living arrangements, school, or curriculum in order to arrive at their choice for higher education

### Family Income

An important consideration in evaluating the student benefit program is the "total money income" of the "immediate family"<sup>28</sup> The median family income of student beneficiaries in 1972

<sup>27</sup> *Ibid*

<sup>28</sup> For definitions of survey terms in this section, see the Technical Note, pages 30-31 Both the immediate-family and total-income concepts correspond to those used by the Internal Revenue Service and the Office of Education in defining dependency of a child

was \$8,540—substantially lower than the median income of \$12,820 for all American families with children aged 18-24 enrolled in high school or college, full time (table 17)<sup>29</sup> As the tabulation

| Type of school           | Median family income for students— |                  |
|--------------------------|------------------------------------|------------------|
|                          | With benefits                      | Without benefits |
| Total                    | \$8 540                            | \$7,180          |
| High school              | 6,090                              | 4 840            |
| College                  | 9,690                              | 8 390            |
| Noncollege postsecondary | 6 980                              | 5,550            |

above shows, the student's benefit was an important component of the family income

The median total income (\$9,690) for families of college student beneficiaries was only 71 percent of the median income (\$13,600) for all American families with unmarried children aged 18-24 who were in college full time<sup>30</sup> The median income of families with a college student beneficiary is much higher than that for either non-college postsecondary students (\$6,980) or families with a student beneficiary in high school (\$6,090) No substantial differences were found between the incomes of survivor families and those of families with a disabled or retired parent

### Student Benefits

Overall, students received benefits at an annual rate of almost \$1,400 per year Benefit levels for students in high school were lower than the levels received by those in postsecondary education (table 18)<sup>31</sup> Apparent differences between children of a deceased worker and the children of a

<sup>29</sup> Bureau of the Census, *Current Population Reports*, Series P-20, No 260, *op cit*, page 42 Family income from that study is reported in terms of broad income intervals and is "significantly understated as compared with results from more detailed questions," such as those used in the student beneficiary interviews

<sup>30</sup> Bureau of the Census, *ibid* In comparing student beneficiary family income with that of all families with college students, one must recognize that the former includes large components of nontaxable income—that is, social security benefits—while the latter amount, which is income before taxes, overrepresents disposable income The differential effect would therefore be less than what is apparent

<sup>31</sup> Family income levels and benefit levels of high school students tend to resemble those of other students to the extent that high school students go on to higher education or have a sibling in higher education

**TABLE 17—Total money income of family Number and percentage distribution of student beneficiaries, by basis for entitlement and type of school, 1972**

| Money income <sup>1</sup> | All student beneficiaries |             |         |                            | Student beneficiaries, by basis for entitlement |             |         |                            |                                    |             |         |                            |
|---------------------------|---------------------------|-------------|---------|----------------------------|---|-------------|---------|----------------------------|------------------------------------|-------------|---------|----------------------------|
|                           |                           |             |         |                            | Death of parent                                 |             |         |                            | Retirement or disability of parent |             |         |                            |
|                           | Total                     | High school | College | Non-college post-secondary | Total   | High school | College | Non-college post-secondary | Total                              | High school | College | Non-college post-secondary |
| Number (in thousands)     |                           |             |         |                            |   |             |         |                            |                                    |             |         |                            |
| Total                     | 553                       | 120         | 393     | 40                         | 374   | 78          | 269     | 27                         | 179                                | 42          | 124     | 13                         |
| Reporting <sup>2</sup>    | 483                       | 109         | 339     | 35                         | 322   | 70          | 228     | 24                         | 161                                | 39          | 111     | 10                         |
| Total percent             | 100                       | 100         | 100     | 100                        | 100   | 100         | 100     | 100                        | 100                                | 100         | 100     | 100                        |
| Less than \$2,000         | 4                         | 8           | 3       | 4                          | 5   | 10          | 4       | 2                          | 2                                  | 4           | 1       | 2                          |
| 2,000-2,999               | 5                         | 9           | 4       | 5                          | 5   | 9           | 4       | 5                          | 4                                  | 8           | 2       | 4                          |
| 3,000-3,999               | 7                         | 11          | 5       | 10                         | 7   | 9           | 5       | 12                         | 8                                  | 14          | 5       | 6                          |
| 4,000-4,999               | 8                         | 11          | 7       | 11                         | 7   | 8           | 7       | 10                         | 10                                 | 16          | 8       | 15                         |
| 5,000-5,999               | 7                         | 11          | 6       | 11                         | 7   | 11          | 4       | 13                         | 8                                  | 11          | 8       | 7                          |
| 6,000-6,999               | 8                         | 10          | 7       | 10                         | 8   | 10          | 7       | 11                         | 9                                  | 11          | 8       | 7                          |
| 7,000-7,999               | 7                         | 7           | 7       | 6                          | 7   | 7           | 7       | 6                          | 8                                  | 8           | 8       | 9                          |
| 8,000-8,999               | 12                        | 10          | 13      | 11                         | 11  | 10          | 12      | 10                         | 14                                 | 10          | 16      | 15                         |
| 10,000-14,999             | 22                        | 13          | 24      | 21                         | 22  | 15          | 24      | 21                         | 21                                 | 11          | 25      | 21                         |
| 15,000 or more            | 20                        | 10          | 24      | 11                         | 21  | 11          | 26      | 10                         | 16                                 | 7           | 19      | 14                         |
| Median income             | \$8,540                   | \$6,090     | \$9,690 | \$6,984                    | \$8,776   | \$6,324     | \$9,953 | \$6,643                    | \$8,168                            | \$5,656     | \$9,212 | \$7,962                    |

<sup>1</sup> Represents total money income for calendar 1972. Includes students' benefits and other social security benefits received by family. Excludes other income of children and incomes of household members not in the

student beneficiaries immediate family. See Technical Note for definition of terms.

<sup>2</sup> Includes only those who reported fully on all items.

retired or disabled worker are the result of the different proportions of the worker's basic benefit (75 percent and 50 percent, respectively) they receive as their part of the total benefits paid on that worker's account.

### Work and Earnings of the Student

Student beneficiaries demonstrate impressive attachment to work. 76 percent work at some time during the year, with college students (80 percent) working more than those in high school (70 percent) or in noncollege postsecondary schools (66 percent) because of their higher employment rates in the summer (table 19). Almost half the student beneficiaries work during the school year, along with their full-time school attendance.

Of college students working during the school year, the median amount worked was 28 weeks—a very large portion of the school year. Thirty-five percent of the working students worked 35 or more weeks in the school year, which means they worked between semesters and during holiday recesses, as well as during semesters. The median number of hours worked for college students who worked during the school year was 15 per week or about the same as the nominal

number of hours in classroom required of the full-time student.

When college and high school student beneficiaries are compared with their counterparts in the general population, student beneficiaries, both male and female, whether in high school or college, are found to be more likely to have worked during the school year, as the following figures show.<sup>32</sup> Male students work more often than the female students, especially during the summer months.

| Sex    | Percent working, aged 18-19 |             |                           |             |
|--------|-----------------------------|-------------|---------------------------|-------------|
|        | Student beneficiaries       |             | All students <sup>1</sup> |             |
|        | College                     | High school | College                   | High school |
| Male   | 47                          | 51          | 37                        | 42          |
| Female | 41                          | 35          | 29                        | 33          |

<sup>1</sup> Estimated from Bureau of Labor Statistics, *Employment of School Age Youth, October 1972* (Special Labor Force Report 158), 1973, tables A and B and text on page 13. The proportion working is the product of the percent employed and the percent in the labor force.

Student beneficiaries—by definition full-time students—do not earn at such high levels that their benefits are reduced because of excess earn-

<sup>32</sup> The counterpart group was asked about work last week while the beneficiary student was asked whether he usually worked during the school year. The bias is toward larger proportions of student beneficiaries who reported work.

TABLE 18—Monthly benefit amount Number and percentage distribution of student beneficiaries, by basis for entitlement and type of school, December 1972

| Monthly benefit amount <sup>1</sup> | All students beneficiaries |             |         |                            | Student beneficiaries, by basis for entitlement |             |         |                            |                                    |             |         |                            |
|-------------------------------------|----------------------------|-------------|---------|----------------------------|---|-------------|---------|----------------------------|------------------------------------|-------------|---------|----------------------------|
|                                     |                            |             |         |                            | Death of parent                                 |             |         |                            | Retirement or disability of parent |             |         |                            |
|                                     | Total                      | High school | College | Non-college post secondary | Total   | High school | College | Non college post secondary | Total                              | High school | College | Non college post secondary |
| Total number (in thousands)         | 588                        | 126         | 420     | 41                         | 401   | 83          | 289     | 29                         | 187                                | 43          | 131     | 13                         |
| Total percent <sup>2</sup>          | 100                        | 100         | 100     | 100                        | 100   | 100         | 100     | 100                        | 100                                | 100         | 100     | 100                        |
| \$0-45                              | 10                         | 18          | 8       | 7                          | 4   | 8           | 3       | 3                          | 23                                 | 28          | 19      | 18                         |
| 46-75                               | 13                         | 17          | 12      | 13                         | 9   | 13          | 7       | 7                          | 22                                 | 23          | 22      | 24                         |
| 76-90                               | 10                         | 11          | 10      | 8                          | 10  | 11          | 10      | 8                          | 9                                  | 11          | 9       | 8                          |
| 91-105                              | 11                         | 9           | 11      | 8                          | 9   | 9           | 10      | 5                          | 13                                 | 10          | 14      | 14                         |
| 106-120                             | 11                         | 10          | 12      | 12                         | 8   | 9           | 8       | 9                          | 19                                 | 12          | 21      | 19                         |
| 121-135                             | 10                         | 7           | 11      | 15                         | 9   | 7           | 9       | 13                         | 13                                 | 6           | 15      | 17                         |
| 136-150                             | 7                          | 7           | 7       | 8                          | 10  | 10          | 10      | 11                         | 0                                  | 0           | 0       | 0                          |
| 151-165                             | 12                         | 12          | 12      | 12                         | 17  | 18          | 17      | 18                         | 0                                  | 0           | 0       | 0                          |
| 166-180                             | 11                         | 7           | 12      | 13                         | 16  | 10          | 17      | 20                         | 0                                  | 0           | 0       | 0                          |
| 181 or more                         | 5                          | 2           | 6       | 4                          | 8   | 4           | 9       | 6                          | 0                                  | 0           | 0       | 0                          |
| Median amount                       | \$115                      | \$98        | \$118   | \$123                      | \$138   | \$135       | \$151   | \$142                      | \$85                               | \$62        | \$92    | \$90                       |

<sup>1</sup> Benefits were increased 20 percent effective for October 1972. Monthly benefit amount may overstate the actual amount received when either the worker or the student has had earnings above the exempt amount or when an adjustment for overpayment has been made.

<sup>2</sup> Survivor children receive 75 percent of the worker's basic benefit, other children receive 50 percent. Distributions reflect these different portions of the worker's basic benefit.

TABLE 19—Students' work experience Number and percentage distribution of student beneficiaries, by type of school and sex, 1972-73 school year

| Students' work experience                           | All students |         |        | Type of school |       |        |                      |         |        |                          |         |        |
|---|--------------|---------|--------|----------------|-------|--------|----------------------|---------|--------|--------------------------|---------|--------|
|   |              |         |        | High school    |       |        | College <sup>1</sup> |         |        | Noncollege postsecondary |         |        |
|   | Both sexes   | Male    | Female | Both sexes     | Male  | Female | Both sexes           | Male    | Female | Both sexes               | Male    | Female |
| Total number (in thousands)                         | 588          | 307     | 281    | 126            | 80    | 46     | 420                  | 211     | 209    | 41                       | 15      | 27     |
| Total percent                                       | 100          | 100     | 100    | 100            | 100   | 100    | 100                  | 100     | 100    | 100                      | 100     | 100    |
| No work   | 24           | 18      | 29     | 30             | 22    | 44     | 20                   | 16      | 25     | 34                       | 22      | 41     |
| Any work <sup>2</sup>                               | 76           | 82      | 71     | 70             | 78    | 56     | 80                   | 84      | 75     | 66                       | 78      | 59     |
| Both summer and school year                         | 35           | 39      | 33     | 35             | 42    | 23     | 37                   | 38      | 34     | 32                       | 39      | 28     |
| Summer only   | 32           | 35      | 27     | 25             | 27    | 21     | 34                   | 39      | 30     | 24                       | 30      | 20     |
| School year only                                    | 9            | 8       | 11     | 10             | 9     | 12     | 9                    | 7       | 11     | 10                       | 9       | 11     |
| Median total earnings of those working <sup>3</sup> | \$990        | \$1,100 | \$770  | \$770          | \$860 | \$560  | \$980                | \$1,160 | \$800  | \$930                    | \$1,320 | \$800  |

<sup>1</sup> Includes less than 3 percent in graduate school.

<sup>2</sup> Includes work study, whether in the form of aid or part of an academic program.

ings under the earnings test.<sup>33</sup> The median amount of total earnings was \$920. Beneficiaries in high school earn less than those in college or noncollege postsecondary schools. Female students earned significantly less than male students.

### Perceived Ability To Meet Costs

One measure of the impact of the student beneficiary program is the student's own report on

<sup>33</sup> In 1972, the exempt amount of earnings was \$1,680, in 1973, it was \$2,100. Data for earnings and work include students in university-sponsored training and work study programs.

the difficulties in meeting the costs of education and on the extent to which benefits make possible the pursuit of education. Similar proportions of freshmen student beneficiaries and freshmen in general felt no difficulty or concern with respect to financing their college education (table 20), despite the lower family incomes of the beneficiary group.

If benefits are the major reason for this felt parity, student beneficiaries could be expected to report heavily that school would not be possible except for such benefits. A third of the student beneficiaries felt they would not be in school full

TABLE 20 — College freshmen's concern with or difficulty in meeting school costs. Number and percentage distribution of college freshmen beneficiaries and of college freshmen in general population, by sex, 1972-73 school year

| Sex           | College freshmen beneficiaries |   |      |      | Percentage distribution of all college freshmen <sup>1</sup> by concern with meeting costs |      |      |       |      |
|---------------|--------------------------------|---|------|------|--|------|------|-------|------|
|               | Total number (in thousands)    | Percentage distribution, by difficulty in meeting costs |      |      | Total  | None | Some | Major |      |
|               |                                | Total   | None | Some |  |      |      |       | Much |
| Both sexes... | 126                            | 100   | 37   | 54   | 9  | 100  | 36   | 49    | 15   |
| Male          | 61                             | 100   | 33   | 56   | 11   | 100  | 37   | 49    | 14   |
| Female        | 65                             | 100   | 41   | 51   | 8  | 100  | 34   | 50    | 16   |

<sup>1</sup> Based on data from American Council on Education, *op cit*, Vol 7, No 5, December 1972, pages 22, 30, and 38. About 8 percent are student

beneficiaries

time if they were not receiving benefits, with substantial differences according to type of school.

The student beneficiary children of deceased workers were more likely to feel that school would not be possible without benefits than were other student beneficiaries. Fifty-two percent of all student beneficiaries reported they would continue

school without benefits, and 14 percent were unsure (table 21). Female students and maternal or paternal orphans were least likely to report they would be in school if they were not receiving student benefits. Expectably, when tuition or living costs are involved, smaller proportions reported they could continue school without benefits. Less

TABLE 21 — Student beneficiaries reporting on likelihood of school attendance without benefits. Number and percentage distribution of student beneficiaries, by type of school and sex, 1972-73 school year

| Likelihood of school attendance without benefits | All student beneficiaries |      |        | Student beneficiaries, by basis for entitlement |      |        |                                    |      |        |
|--|---------------------------|------|--------|---|------|--------|------------------------------------|------|--------|
|  |                           |      |        | Death of parent                                 |      |        | Retirement or disability of parent |      |        |
|  | Both sexes                | Male | Female | Both sexes                                      | Male | Female | Both sexes                         | Male | Female |
| Total  |                           |      |        |   |      |        |                                    |      |        |
| Total number (in thousands)                      | 588                       | 307  | 281    | 401   | 210  | 191    | 187                                | 97   | 91     |
| Total percent --                                 | 100                       | 100  | 100    | 100   | 100  | 100    | 100                                | 100  | 100    |
| Not in school                                    | 33                        | 31   | 36     | 36  | 34   | 38     | 28                                 | 25   | 31     |
| Maybe, don't know                                | 14                        | 14   | 14     | 15  | 15   | 15     | 13                                 | 13   | 14     |
| In school  | 52                        | 55   | 50     | 49  | 51   | 47     | 59                                 | 62   | 55     |
| High school                                      |                           |      |        |   |      |        |                                    |      |        |
| Total number (in thousands)                      | 126                       | 80   | 46     | 83  | 52   | 31     | 43                                 | 28   | 15     |
| Total percent...                                 | 100                       | 100  | 100    | 100   | 100  | 100    | 100                                | 100  | 100    |
| Not in school                                    | 16                        | 17   | 15     | 16  | 16   | 16     | 17                                 | 18   | 15     |
| Maybe, don't know                                | 8                         | 8    | 8      | 9   | 9    | 9      | 6                                  | 6    | 7      |
| In school  | 76                        | 75   | 77     | 75  | 75   | 75     | 77                                 | 76   | 78     |
| College  |                           |      |        |   |      |        |                                    |      |        |
| Total number (in thousands)                      | 420                       | 211  | 209    | 289   | 147  | 142    | 131                                | 64   | 67     |
| Total percent --                                 | 100                       | 100  | 100    | 100   | 100  | 100    | 100                                | 100  | 100    |
| Not in school                                    | 36                        | 35   | 38     | 40  | 38   | 41     | 30                                 | 27   | 33     |
| Maybe, don't know                                | 16                        | 17   | 16     | 17  | 18   | 18     | 15                                 | 15   | 15     |
| In school  | 47                        | 48   | 46     | 43  | 44   | 43     | 55                                 | 58   | 52     |
| Noncollege postsecondary                         |                           |      |        |   |      |        |                                    |      |        |
| Total number (in thousands)                      | 41                        | 15   | 27     | 29  | 11   | 18     | 13                                 | 4    | 9      |
| Total percent ---                                | 100                       | 100  | 100    | 100   | 100  | 100    | 100                                | 100  | 100    |
| Not in school                                    | 54                        | 54   | 55     | 57  | 59   | 56     | 49                                 | 41   | 53     |
| Maybe, don't know                                | 13                        | 14   | 13     | 12  | 10   | 13     | 16                                 | 24   | 12     |
| In school  | 32                        | 32   | 32     | 31  | 31   | 31     | 35                                 | 36   | 35     |

than half those in college and less than a third of the noncollege postsecondary students reported that they could continue school without student benefits

## SUMMARY

Student beneficiaries resemble all students aged 18-21 with respect to their own educational characteristics but differ in other ways—primarily in socioeconomic background. Beneficiary students are more likely to be black and to have parents who had worked at blue-collar occupations. Family income with one parent—usually the father—no longer working because of death, disability, or retirement was lower than the incomes of families nationally and much lower than incomes of other families with children in college.

About a fifth of beneficiary students were completing their secondary education or—by modern standards—the minimum preparation for adult life and a working career. In comparison with other high school seniors aged 18 or older, those with benefits are more likely to attend college. Seven percent were pursuing technical, business, vocational, or secretarial training full time. Of the more than 70 percent in college, most were studying at the baccalaureate level.

For college student beneficiaries, the education of their parents was lower than what was typical for other children in college. When they were away at college, the beneficiary students were more likely to live in school-provided housing than were students generally. They were more likely to work than college students in general while they were maintaining similar grades. More were found pursuing the social sciences or education as a major field of study. The college student beneficiaries showed a more practical than idealistic orientation toward the value of college and careers.

Similar proportions of beneficiary college students and college students in general plan graduate work. The cost of undergraduate studies for both groups was similar, as was their reported ability to meet those costs. More than half of those in college were unsure of being able to meet those costs and continue in college without benefits.

## Technical Note\*

The estimates presented here are based on data obtained in the 1973 Survey of Student Beneficiaries, the first nationwide survey of children aged 18-22 receiving monthly cash benefits under the old-age, survivor, and disability insurance (OASDI) program. The Opinion Research Corporation of Princeton, N.J., acted as collection agent under contract with the Social Security Administration. The Division of Retirement and Survivor Studies of the Office of Research and Statistics initiated the study, supervised the data collection, and performed subsequent processing and tabulation operations.

## STUDENT BENEFITS

Dependent children of insured deceased, retired, or disabled workers receive monthly cash benefits as long as they are unmarried and younger than age 18. This child's benefit continues up to age 22 if the dependency of the child continues as a result of full-time school attendance and non-marriage. These "student beneficiaries" comprise nearly 15 percent of all child beneficiaries under the OASDI program.<sup>34</sup>

Benefits are not payable to those engaged in home-study courses or those taking courses of study shorter than 13 weeks. Benefits are paid year round and without regard to type or level of school, course of study, or to any other constraints normally associated with scholarships, grants, loans, or education aid. As with all OASDI benefits, the amount received is subject to reduction or suspension because of earnings above the exempt amount specified in the law either by the worker-beneficiary on whose record the benefits are paid or by earnings of the student beneficiary. The student's benefit amount is one-half the retired or disabled parent's basic benefit or three-fourths of the deceased parent's basic benefit, subject to reduction if the total of benefits

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\* Prepared by Wayne W. Finegar, Division of Retirement and Survivor Studies, Office of Research and Statistics.

<sup>34</sup> The railroad retirement program pays benefits to students under provisions similar to those of the social security program, as does the "black lung" program of the Federal Coal Mine Health and Safety Act.

paid on that earnings record exceeds the statutory family maximum<sup>35</sup>

Student benefits were first payable as a result of the 1965 amendments to the Social Security Act. The program has grown steadily in the number receiving benefits and the benefit levels, as the following figures for the first 11 years of the program show.<sup>36</sup>

| Year | Number receiving students' benefits | Average monthly amount |
|------|-------------------------------------|------------------------|
| 1965 | 205 677                             | \$66 73                |
| 1966 | 375,873                             | 63 85                  |
| 1967 | 427 267                             | 64 24                  |
| 1968 | 474 056                             | 72 23                  |
| 1969 | 498 015                             | 72 34                  |
| 1970 | 537 170                             | 83 16                  |
| 1971 | 583 374                             | 91 55                  |
| 1972 | 634 481                             | 109 7                  |
| 1973 | 651 540                             | 111 45                 |
| 1974 | 679 101                             | 124 75                 |
| 1975 | 774 000                             | 136 46                 |

Since substantial numbers of student benefits are terminated each year (usually for graduation, marriage, or reaching age 22) and others are added as children with child's benefits reach age 18 or as children aged 18-21 become entitled upon their parent's death, disability, or retirement the year-end numbers seen above understate the total receiving benefits at any time in a year. In 1972, about 11 million children received a student benefit some time during that year, the average monthly amount received at the end of the year was \$110. In the decade 1965-75, more than 44 million children had been awarded student benefits while completing high school, college, or other postsecondary education.

Student benefits are among the least known of the components of the social security program, and, probably because of their name, among the least accurately understood. It is the intent of all OASDI programs to provide benefit income to replace in part the earned income lost when the worker dies, becomes disabled, or retires. Benefits are paid not only in proportion to the level of earnings lost, but also in proportion to

<sup>35</sup> The family maximum, which varies with the primary insurance amount or basic benefit of the worker, ranges from 150 percent to 188 percent of the basic benefit. Generally, if more than two persons receive benefits on an earnings record, the total of the benefits is limited and, by proration, the individual dependent and survivor benefits are reduced.

<sup>36</sup> See Barbara A. Lingg, "Social Security Benefits for Students, 1965-75," pages 43-48, in this issue of the *Bulletin*.

size of the family dependent on those lost earnings. Specifically, the student benefit is paid in recognition of the continuing family membership of the student.<sup>37</sup>

The provisions for receipt of student benefits explicitly define the situations under which a student's dependent family membership will cease. Upon marriage, student's earnings above the exempt amount, or leaving full-time studies. The student benefit is paid up to the limit of age 22 for the duration of his continuing dependent family membership—a time when the costs of school are in fact likely to increase such dependency and to impact most heavily on family income.

Government and private educational aid programs commonly address the needs of students whose families cannot contribute the full cost of education from earnings, savings, or other income. Unfortunately, the student benefit is sometimes misunderstood to be a form of aid rather than a component of family income. Despite its name and the requirement for school attendance, the student benefit program is not a grant, scholarship, loan, or aid program. The distinction is fundamental, as stated above, and explicit in many of the administrative details. Neither need nor scholarship ability determine receipt of the benefit or its level, the benefits are paid monthly, year round, rather than on a school-year basis; they are not paid to enable the student to pursue a particular course of study or attend a particular school, there is no commitment for service or repayment, the benefit is a direct cash payment, not scrip negotiable only for school expenses. Entitlement to the student benefit derives directly from the child's relationship to the worker whose earnings are lost, the amount of the benefit is determined by those earnings and not the cost of the school attended.

## STUDY DESIGN

### Target Population

The target population for the 1973 Survey of Student Beneficiaries was that population meeting the criteria of dependency, hence currently

<sup>37</sup> Since 1973 the student benefit is usually paid as a separate check and is not included with benefits for children under age 18 in a single family check. In 1972 and earlier, the student's benefit was normally paid as part of the single family check.

receiving cash benefits, as of January 1973. Not included are (1) those who had received student benefits earlier in the year but who had dropped from the rolls before the end of 1972 while they were still aged 18-21, (2) those whose benefits were terminated in 1972 at age 22, and (3) those whose child's benefits were terminated in 1972 at age 18 but who did not receive student benefits. Selected characteristics of these three groups are known from analysis of data obtained during pretest operations for the 1973 Survey.<sup>88</sup>

### Sample Design

The sample design used for the 1973 Survey of Student Beneficiaries was provided by the collection agency. Their sample design represents the general population of the conterminous United States. It was assumed in adopting the sample design that the distribution of insured and entitled workers, and therefore their student children, closely corresponded to the distribution of the general population.

The sample was selected by means of a two-stage design. The first stage consisted of the selection of 170 primary sampling units (PSU's), including 26 self-representing areas—that is, counties or groups of counties (towns and groups of towns in New England). The second stage

consisted of systematic sampling from the Social Security Administration master beneficiary record within the 170 primary sampling areas. Equal numbers of survivor children cases and cases of children with a retired or disabled parent were sought. A total of 3,715 cases were initially drawn.

After the initial draw, 289 cases were found technically outside the target population. Nearly two-thirds of these beneficiaries reported they had not in fact entered school for the 1972-73 school year; most of the remaining third represented cases of benefits suspended as a result of earnings of the retired or disabled worker. As table I shows, these 289 cases covered an estimated 46,492 students. Their data were excluded from analysis.

### Interview Units

For each of the 3,426 selected cases technically in scope, two separate interviews were attempted. One with the student and one with the head of the family of which the student was a member. Ninety-seven percent of respondents within the family were mothers, fathers, stepparents, or guardians.

### Data Collection

Field work was carried out at the end of the 1972-73 school year—from March through June

<sup>88</sup> Patricia Ruggles and Carol Zuckert, "Social Security Student and Former Child Beneficiaries Aged 18-21," *Social Security Bulletin*, March 1974.

TABLE I—Weighted population estimates of student beneficiaries, December 1972

| Basis for entitlement and sex             | Total in universe <sup>1</sup> | Ineligible for survey <sup>2</sup> | Eligible for survey, by type of school |             |                   |                       |                            |             |                   |                       |
|---|--------------------------------|------------------------------------|--|-------------|-------------------|-----------------------|----------------------------|-------------|-------------------|-----------------------|
|   |                                |                                    | With interview data                    |             |                   |                       | With family interview data |             |                   |                       |
|   |                                |                                    | Total                                  | High school | College, graduate | Technical, vocational | Total                      | High school | College, graduate | Technical, vocational |
| <i>All student beneficiaries</i>          |                                |                                    |  |             |                   |                       |                            |             |                   |                       |
| Total number                              | 634 481                        | 46,492                             | 587 989                                | 126 044     | 420,453           | 41 492                | 553 298                    | 120,154     | 393 262           | 39,882                |
| Male                                      | 330 743                        | 24 235                             | 306 508                                | 80 378      | 211,291           | 14 839                | 287,829                    | 77,184      | 196 356           | 14,289                |
| Female                                    | 303 738                        | 22 257                             | 281,481                                | 45 666      | 209,162           | 26 653                | 265,469                    | 42,970      | 196 906           | 25,593                |
| <i>Death of parent</i>                    |                                |                                    |  |             |                   |                       |                            |             |                   |                       |
| Total number..                            | 426,796                        | 25 894                             | 400 902                                | 83 145      | 289 173           | 28 584                | 374 204                    | 78 063      | 208 814           | 27 237                |
| Male                                      | 223 496                        | 13 560                             | 209 936                                | 52 455      | 147,023           | 10 548                | 195 715                    | 49,541      | 136 266           | 9 908                 |
| Female                                    | 203 300                        | 12 334                             | 190,966                                | 30,690      | 142,150           | 18,126                | 178 489                    | 28,512      | 132 648           | 17,329                |
| <i>Retirement or disability of parent</i> |                                |                                    |  |             |                   |                       |                            |             |                   |                       |
| Total number..                            | 207,685                        | 20 598                             | 187 087                                | 42 899      | 131 280           | 12 908                | 17,094                     | 42 101      | 124 348           | 12 645                |
| Male                                      | 107 204                        | 10 632                             | 96,572                                 | 27,923      | 64 268            | 4 381                 | 92 114                     | 27,643      | 60 090            | 4 381                 |
| Female                                    | 100,481                        | 9 966                              | 90,515                                 | 14,976      | 67,012            | 8,527                 | 86,980                     | 14,458      | 64 258            | 8 264                 |

<sup>1</sup> Totals from payment records for sex, estimates impute proportions ineligible.

<sup>2</sup> For totals, estimated from difference between survey estimates and

universe counts, for sex, estimates impute proportions ineligible from interview data.

Direct interviews were completed for 2,946 families, or 86 percent of those eligible. Direct interviews were completed for 2,646 students, in addition to completed mail and telephone interviews for 286 more, or 86 percent of those eligible. Complete student and family interviews were matched for 2,772 cases, or 81 percent of those eligible.

Field work by the collection agency involved four stages of interviewer training: Programmed self-instruction, group instruction and practice interviews, first interview debriefing, and intensive early interview evaluation and validation. Each interview passed through four stages of checking, consistency editing, and callback to ensure full responses on income and education-related items before being accepted as complete. Field work included data conversion to tape, computer editing for valid codes, and further skip-pattern and consistency checking. The resulting interview data were merged with selected data from the master beneficiary record system to produce the data file used in preparing the sample estimates reported here.

## ESTIMATION

### Weighting

The estimates presented for the student beneficiary population are based on weighted counts of the sample population, reflecting the probability of their selection and adjusted for non-interview. The inverse of the probability of selection, the basic weight, reflects the probabilities first of selecting the PSU and then for selection of the individual sample case, separately for cases of survivor children and for children of retired or disabled workers.

No interview was obtained for 494 students technically in scope. A noninterview adjustment factor was determined on the basis of the student's age (18 or 19 and older) and five categories of levels of basic benefits, separately for survivor children and for children of retired or disabled workers. The range of factors was between 1.11 and 1.23.

Final weights consist of the basic weight adjusted for noninterview. The average survivor case weight is 2.70, the average weight for children sampled in families of disabled or retired

workers is 1.29, the overall average student beneficiary weight is 2.00.

The basic survey estimates of the student beneficiary population in 1972 are shown in table I. Characteristics of sex, type of school attended, and basis for benefit receipt for students with matched family interviews do not differ from those of the entire target population of eligible students. Note that the population estimates reported for the survey exclude those cases found ineligible for student-benefit status in the 1972-73 school year.

## SAMPLING VARIABILITY

Since the population estimates given in this report are based on the responses of individuals in a sample, they will differ from the values that would have been obtained in a complete census. A measure of this sampling variability of an estimate is given by the standard error of the estimate. Generally speaking, the chances are about 68 out of 100 that an estimate will differ from the value given by a complete census by less than one standard error. The chances are about 95 out of 100 that the difference will be less than twice the standard error.

Tables II-IV give approximate standard errors for the estimated percentages of individuals who have certain characteristics. Linear interpolation may be used to obtain values not specifically given. In order to derive standard errors that are applicable to a wide variety of items, a number of assumptions and approximations were required. As a result the tables of standard errors provide an indication of the order of magnitude rather than the precise standard error for any specific item.

Standard errors were obtained by deriving the approximate design effect of the survey. The standard errors of mean values of certain characteristics were calculated directly taking into account the complex sampling design of the survey. The standard errors of these same means were then calculated as if the sample were a simple random one. The ratio of these two estimates of standard error is an estimate of the design effect.

The design effect of this survey was estimated to be 2.25, and so the estimates given in the tables



TABLE II—Approximate standard errors of estimated percentage of children of deceased workers

| Size of base<br>(in thousands) | Estimated percentage |               |                |                |                |                |                |                |     |  |
|--------------------------------|----------------------|---------------|----------------|----------------|----------------|----------------|----------------|----------------|-----|--|
|                                | 2<br>or<br>98        | 5<br>or<br>95 | 10<br>or<br>90 | 15<br>or<br>85 | 20<br>or<br>80 | 25<br>or<br>75 | 30<br>or<br>70 | 40<br>or<br>60 | 50  |  |
| 50                             | 2.3                  | 3.5           | 4.8            | 5.8            | 6.5            | 7.0            | 7.4            | 7.9            | 8.1 |  |
| 75                             | 1.8                  | 2.9           | 4.0            | 4.7            | 5.3            | 5.7            | 6.0            | 6.5            | 6.6 |  |
| 100                            | 1.6                  | 2.5           | 3.4            | 4.1            | 4.6            | 5.0            | 5.2            | 5.6            | 5.7 |  |
| 125                            | 1.4                  | 2.2           | 3.1            | 3.6            | 4.1            | 4.4            | 4.7            | 5.0            | 5.1 |  |
| 150                            | 1.3                  | 2.0           | 2.8            | 3.3            | 3.7            | 4.0            | 4.3            | 4.6            | 4.7 |  |
| 200                            | 1.1                  | 1.8           | 2.4            | 2.9            | 3.2            | 3.5            | 3.7            | 4.0            | 4.0 |  |
| 250                            | 1.0                  | 1.6           | 2.2            | 2.6            | 2.9            | 3.1            | 3.3            | 3.5            | 3.6 |  |
| 300                            | 9                    | 1.4           | 2.0            | 2.4            | 2.6            | 2.9            | 3.0            | 3.2            | 3.3 |  |
| 350                            | 8                    | 1.3           | 1.8            | 2.2            | 2.4            | 2.6            | 2.8            | 3.0            | 3.1 |  |
| 400                            | 8                    | 1.2           | 1.7            | 2.0            | 2.3            | 2.5            | 2.6            | 2.8            | 2.9 |  |

are those for a simple random sample multiplied by 2.25 Table II gives standard errors of percentages of students who are survivors Table III applies to students who are children of retired or disabled workers, and table IV applies to the combined population of all students receiving benefits

Suppose, for example, it is estimated that 18 percent of 325,000 students who are survivors have a certain characteristic Interpolation in table II gives an estimate of the standard error to be 2.4 percent Thus, with 95-percent confidence the percentage of students with this characteristic lies between 13.2 percent and 22.8 percent

In order to make a rough determination of the statistical significance of the difference between two independent percentages, the following procedure may be used Find estimates of standard errors of the percents in question Square these standard errors to get variances and add the variances Take the square root of this sum to get the standard error of the difference If the absolute difference between the two percentages in question is greater than twice the standard error of the difference, they are said to be significantly different from one another at the 5-percent level

TABLE III—Approximate standard errors of estimated percentage of children of retired or disabled workers

| Size of base<br>(in thousands) | Estimated percentage |               |                |                |                |                |                |                |     |  |
|--------------------------------|----------------------|---------------|----------------|----------------|----------------|----------------|----------------|----------------|-----|--|
|                                | 2<br>or<br>98        | 5<br>or<br>95 | 10<br>or<br>90 | 15<br>or<br>85 | 20<br>or<br>80 | 25<br>or<br>75 | 30<br>or<br>70 | 40<br>or<br>60 | 50  |  |
| 50                             | 1.6                  | 2.6           | 3.5            | 4.1            | 4.7            | 5.1            | 5.4            | 5.7            | 5.9 |  |
| 75                             | 1.3                  | 2.1           | 2.9            | 3.4            | 3.8            | 4.1            | 4.4            | 4.7            | 4.9 |  |
| 100                            | 1.2                  | 1.8           | 2.5            | 3.0            | 3.3            | 3.6            | 3.8            | 4.1            | 4.1 |  |
| 125                            | 1.0                  | 1.6           | 2.2            | 2.6            | 3.0            | 3.2            | 3.4            | 3.6            | 3.7 |  |
| 150                            | 9                    | 1.5           | 2.0            | 2.4            | 2.7            | 2.9            | 3.1            | 3.3            | 3.4 |  |
| 200                            | 8                    | 1.3           | 1.8            | 2.1            | 2.3            | 2.5            | 2.7            | 2.9            | 2.9 |  |

TABLE IV—Approximate standard errors of estimated percentage of all student beneficiaries

| Size of base<br>(in thousands) | Estimated percentage |               |                |                |                |                |                |                |     |  |
|--------------------------------|----------------------|---------------|----------------|----------------|----------------|----------------|----------------|----------------|-----|--|
|                                | 2<br>or<br>98        | 5<br>or<br>95 | 10<br>or<br>90 | 15<br>or<br>85 | 20<br>or<br>80 | 25<br>or<br>75 | 30<br>or<br>70 | 40<br>or<br>60 | 50  |  |
| 50                             | 2.0                  | 3.1           | 4.3            | 5.1            | 5.7            | 6.2            | 6.5            | 7.0            | 7.1 |  |
| 75                             | 1.6                  | 2.5           | 3.5            | 4.1            | 4.6            | 5.0            | 5.3            | 5.7            | 5.8 |  |
| 100                            | 1.4                  | 2.2           | 3.0            | 3.6            | 4.0            | 4.4            | 4.6            | 4.9            | 5.0 |  |
| 125                            | 1.3                  | 2.0           | 2.7            | 3.2            | 3.6            | 3.9            | 4.1            | 4.4            | 4.5 |  |
| 150                            | 1.1                  | 1.8           | 2.5            | 2.9            | 3.3            | 3.6            | 3.8            | 4.0            | 4.1 |  |
| 200                            | 1.0                  | 1.6           | 2.1            | 2.5            | 2.8            | 3.1            | 3.3            | 3.5            | 3.6 |  |
| 250                            | 9                    | 1.4           | 1.9            | 2.3            | 2.5            | 2.8            | 2.9            | 3.1            | 3.2 |  |
| 300                            | 8                    | 1.3           | 1.7            | 2.1            | 2.3            | 2.5            | 2.7            | 2.8            | 2.9 |  |
| 350                            | 8                    | 1.2           | 1.6            | 1.9            | 2.2            | 2.3            | 2.5            | 2.6            | 2.7 |  |
| 400                            | 7                    | 1.1           | 1.5            | 1.8            | 2.0            | 2.2            | 2.3            | 2.5            | 2.5 |  |
| 500                            | 6                    | 1.0           | 1.3            | 1.6            | 1.8            | 1.9            | 2.1            | 2.2            | 2.2 |  |
| 600                            | 6                    | 9             | 1.2            | 1.5            | 1.6            | 1.8            | 1.9            | 2.0            | 2.1 |  |

**Confidence Intervals for Estimated Percentiles**

The percentiles of a distribution are values of the variable under discussion below which a stated percentage of units of the population lies In particular, the 50th percentile is known as the median, and the 25th, 50th, and 75th percentiles are known as quartiles of the distribution Estimates of these population values are subject to sampling variability that may be estimated in the following way and used to calculate confidence intervals for the percentiles in question

- 1 Using the appropriate base, determine the standard error of the percent in question—the standard error of a 50 percent characteristic, for example
- 2 For 95 percent confidence limits, add to and subtract from the desired percentage twice the standard error found in step 1
- 3 On the cumulated distribution of the variable in question, find by linear interpolation the values that correspond to the limits in step 2 These values are the 95-percent confidence limits for the percentile under discussion

If the cumulative distribution of all units (including those with zero or negative amounts of the variable in question) is given and percentiles and confidence limits of the distribution of units with nonzero amounts are desired, the zero and negative units must be excluded and the percentage distribution recalculated to include only those with "some" of the characteristic involved

**DISPLAY OF DATA**

Percentage distributions and measures of central tendency are not shown when the base for

computation is less than 50 sample cases. Thus, computations are not shown when the base-weighted estimate is less than 10,000 for all student beneficiaries, 13,500 for survivor students, 6,450 for student children of retired or disabled workers. Population estimates based on fewer than 50 sample cases are typically too unreliable for substantive analysis.

## NONSAMPLING ERRORS

As with other surveys, data from the 1973 Survey of Student Beneficiaries are subject to errors of nonresponse, incomplete response, and response error. Social Security Administration benefit record data, available for all sample cases, permit some evaluation of bias likely when no interview at all is obtained. Editing operations provide some data on the concentration and bias of incomplete, inconsistent, or unlikely responses. Since both the parent and the student were asked about school costs and educational aid, nonsampling error evaluation was also possible through comparison of responses.

### Nonresponse

Nonreporting, whether a refused interview or one not obtainable, is a source of error when concentrated in subgroups of the sample population. The bias from nonreporting for which an adjustment was made for noninterview of eligible cases is shown below. Race was not found to be related to nonreporting.

| Eligible cases       | Percentage distribution |                              |   |           |                                      |
|----------------------|-------------------------|------------------------------|---|-----------|--------------------------------------|
|                      | Total                   | Children of deceased workers | Children of retired or disabled workers | At age 18 | Basic benefit amount less than \$200 |
| Interviewed . . . .  | 100                     | 51                           | 49                                      | 37        | 42                                   |
| Noninterview . . . . | 100                     | 42                           | 58                                      | 35        | 49                                   |
| Bias factor . . . .  | ---                     | +11                          | -9                                      | +2        | -7                                   |

### Incomplete Response

Failure to respond to one or a few particular items in an otherwise complete student interview

was negligible. Less than 2 percent for the worst-reported items of education aid or student income. "Don't know" responses were slightly more frequent than nonreport or refused responses and were found concentrated among items where the student can be assumed to lack information. For example, about 1 percent of students did not know the amount their parents paid the school directly or the amount their parents received as veterans' benefits for a dependent child. These very high completeness rates result from special efforts in the field work to ensure completeness in the student-income and education-aid areas.

Despite similar efforts when parents were interviewed, their reporting on the asset components of family income was less complete than were student responses. Family income in the form of transfer payments (pensions, unemployment, etc.) was reported with less than 1 percent incomplete response. Two items of asset income were less well-reported, however: Corporate stock and bond income (4 percent incomplete) and savings interest (7 percent). For these and other asset income items, the "don't know" response was most likely to be the cause of incompleteness. Parents were substantially less reluctant to report earned income than asset income. About 2 percent refused to report their earnings or said they did not know the amount.

### Response Error

Response error (whether intentional, from accidental misrecording of responses by interviewers, or from simple communication faults) was subject to control only through extensive interviewer training and the constant supervision and detailed consistency checking maintained during field work. Interviews passed on from the field as complete received another phase of manual editing and checking before conversion to tape.

### Validation of Education Costs and Aid Data

Since both parent and student were asked similar questions as to the cost of school and the source and amounts of money used to pay for school, comparison of these responses offered several opportunities to validate the survey data.

TABLE V—Interrespondent agreement

| Response                           | Non Federal aid              |                              | School costs            |                |                   |
|------------------------------------|------------------------------|------------------------------|-------------------------|----------------|-------------------|
|                                    | Grants, aid, and scholarship | Loans and personal borrowing | Tuition, fees and books | Room and board | Travel and health |
| Total percent <sup>1</sup> . . . . | 100                          | 100                          | 100                     | 100            | 100               |
| Agreed . . . . .                   | 94                           | 99                           | 91                      | 94             | 94                |
| Disagreed <sup>2</sup> . . . . .   | 6                            | 1                            | 9                       | 6              | 6                 |
| Total number disagreeing . . . .   | 165                          | 29                           | 242                     | 179            | 165               |

<sup>1</sup> 2,772 matching parent and student interviews  
<sup>2</sup> Parents and students disagreed by more than \$200 on aid and \$300 for school costs, with both reporting nonzero amounts

As table V shows, interrespondent agreement was high, within a tolerance of \$200 for aid receipt and \$300 for school costs. Those cases found out of tolerance were given a special secondary editing to resolve disagreement between respondents.

Disagreement as to the amount of non-Federal aid and loans or own-borrowing by the student was found to result from misidentification by the parent as to the source of the aid, rather than a conflict as to the amount. When parent and student responses were compared in editing, the student was most often able to distinguish among the many and varied Federal and non-Federal programs and to classify them as either loans or grants.

Disagreement between parent and student as to the cost of the school was found to result from a variety of definitional problems—guessing by one respondent when the other handled all school finances, and confusion over whether school costs were semester, trimester, quarterly, or year-based. Parents frequently persisted in reporting clothing, automobile, and special health costs as real components of the cost of schooling. As the data in table VI show, parents generally reported higher costs than did their children.

Disagreement as to the cost of tuition, fees, and books and/or room and board were resolved by secondary editing of the two responses taken together and in comparison with four reference sources.<sup>30</sup> The percentages given in table VI on the source of the best estimate of school costs when

<sup>30</sup> National Center for Education Statistics, *Education Directory 1972-73 (Higher Education)*, 1973, *Barron's Profiles of American Colleges*, eighth edition, 1972, James Cass and Max Birnbaum, *Comparative Guide to American Colleges*, Harper & Row, 1972, *Rand McNally Road Atlas US, Canada, and Mexico*, Rand McNally, 1972

the respondents disagreed show that interview data was accepted directly in 85 percent of the discrepant cases. For nearly all cases where the reference sources were taken as the best estimate of school costs, those sources provided additional data on fees, books, structure of the school year, residency requirements, and travel distances that served to complete the interview data.

Best estimates for each sample case were prepared for use in tabulation, as a result of these validation editing procedures. The student interview alone was taken as the best estimate for sources and amounts of educational aid, own earnings, veterans' benefits, and money taken from own savings. Best estimate of school costs was taken from the student interview for cases agreeing within \$300. For the remainder the best estimate was either the parent or student interview as confirmed by or supplemented with reference source data. Editing procedures included examination of a 10-percent sample of nondiscrepant cases, for whom very close agreement was found between respondents and with the reference sources.

TABLE VI—Interrespondent disagreement and resolution of disagreement of school costs

| Item  | Type of cost           |                |                   |
|---|------------------------|----------------|-------------------|
|   | Tuition fees and books | Room and board | Travel and health |
| Total number of cases disagreeing . . . . . | 242                    | 179            | 165               |
| Total percent . . . . .                     | 100                    | 100            | 100               |
| Interrespondent disagreement                |                        |                |                   |
| Student's amount larger . . . . .           | 38                     | 41             | 37                |
| Parent's amount larger . . . . .            | 62                     | 59             | 63                |
| Resolution of disagreement by—              |                        |                |                   |
| Parents' response . . . . .                 | 38                     | 36             | 36                |
| Students' response . . . . .                | 44                     | 55             | 45                |
| Either, with reference . . . . .            | 18                     | 9              | 19                |

**GENERALITY OF ESTIMATES**

Data from the survey may differ from other data as a result of factors relating to the month for which sampling occurred (December), rather than as a result of errors in survey estimates. The student beneficiary population increases in most school years to its peak in May or June because of automatic conversions of child beneficiaries aged 17 (of whom many are in high school) to student beneficiary status. Beneficiary

rolls for September or October are thought to be composed of more students in postsecondary education, but the data may not be complete because of the time required for reporting matriculation to the Social Security Administration. Sampling from the December rolls, although representing the midpoint of the academic year, cannot reflect such changes in composition.

## DEFINITIONS AND CONCEPTS

The concepts of total money income, money received solely for school attendance (educational income), student benefit amount, family composition, and student age and employment are used with definitions specific to the 1973 Survey of Student Beneficiaries.

*Total money income*—Total money income is defined as all 1972 income received by the mother (or stepmother) and father (or stepfather) of the family of which the student beneficiary is a member. Excluded are incomes received by household members not part of the student's immediate family, such as cousins, aunts or uncles, grandparents, or the family of a nonrelated guardian. Also excluded are funds received solely for reason of school attendance (educational income) and the earnings of student and other children of the immediate family. Included is any income before taxes from the following sources: Earnings of father and/or mother, family social security benefits, benefits from railroad retirement and private or public pension, dividends, income from estates or trusts, net rental income or royalties, and interest (except on US savings bonds), public assistance and other welfare payments, veterans' benefits (except those under the GI bill), unemployment and workmen's compensation, alimony and regular contributions from persons outside the household, and other income. One-time money income such as inheritance or insurance payments, loans, tax refunds, gifts, bank withdrawals, and sale of property were not included. Where a working son or daughter continues as a family member, the financial situation of the family will be underestimated to the extent their earnings are a source of family support.

*Total money income other than student benefits*—For selected analyses, 1972 total money income

less any student benefits was computed. Included are social security benefits paid to the parent(s) of the student(s).

*Effective family income*—Effective family income was computed from survey data with a definition corresponding to that used by the Office of Education in administering the "basic educational opportunity grant program"<sup>40</sup>. Under that program's regulations for the 1973-74 school year, effective family income was computed as 1972 total money income less the benefits postsecondary students in the family could expect in 1973, and less an imputed income tax on parents' earnings and other taxable income. Additionally, effective family income was estimated for the 1975-76 school year by computing total money income for 1972 to include, according to that program's regulations, all student benefits less imputed income tax.

*Expected total contribution*—The contribution from family and student that can reasonably be expected to help pay school costs was computed under a definition like that used to determine the total family contribution (in 1975-76 called the student's eligibility index) under the basic educational opportunity grant program of the Office of Education. The "expected total contribution" was computed as the sum of contributions expected from the student's own resources plus contributions from the family resources. For the 1973-74 school year, the student contribution was computed as the sum of one-third of the student's own savings or value of assets plus one-half of GI Bill benefits, plus expected student benefits in 1973. For the 1975-76 school year, only one-third of own savings or assets was taken as the student's own contribution.<sup>41</sup> For both years, the family contribution was computed as 5 percent of

<sup>40</sup>This program, established by the 1972 amendments to the Higher Education Act and first effective in the fall of 1973, pays an award in an amount reflecting the difference between the cost of the school attended and the ability of the student and family to meet these costs. Awards under the program are intended to provide a floor in meeting the costs of postsecondary education.

<sup>41</sup>The College Scholarship Service and the American College Testing Service continue to treat student benefits, at least in part, as directly available for meeting school costs. In general, their computations of expected total family contribution correspond to the Office of Education computation method.

net assets in excess of \$7,500 plus 20 percent of effective family income above \$5,000, plus 30 percent of the amount above \$5,000, after standard 1973-74 offset allowances under the basic educational opportunity grant program for family size and cost of employment. When offset allowances exceeded the effective family income, the excess amount was a further offset against net assets. The family contribution for the sampled student beneficiary was 70 percent when there was one other postsecondary student, 50 percent for two others, and 40 percent for three or more.

All student beneficiaries were treated according to the dependent-student computation method of the basic educational opportunity grant program. Net assets were imputed as 5 percent of reported asset income. Income-tax imputation was based on 1972 tax rates for families taking standard deductions. Family size was based on size of the immediate family (see below). Student's earnings are not part of the basic educational opportunity grant program computations.

*Educational income*—Amounts from sources outside the student's family received solely for reason of school attendance and used to pay school costs are counted as educational income. Educational income for the 1972-73 school year was the sum of GI bill benefits, ROTC payments, benefits as a dependent of a veteran, educational opportunity grants, other Federal grants, private, State, school, or institutional grants, scholarships, or fellowships, Federal guaranteed loans, State guaranteed loans, loans from outside the family, school loans, other loans.

*Immediate family*—The student's immediate family are those household members who are siblings, the mother or father, and the stepmother or stepfather or guardian. About 3 percent of students in the survey had no immediate family other than a guardian. The family of the guardian (*nonimmediate family*) was not considered in the survey. Ten percent were members of households with both an immediate family and a nonimmediate family. Only the immediate family was considered by the survey when matching with the student's interview. A few students have no families at all and are included in the group of interviews without any matching family data.

*Student age*—The age of the student reported in survey estimates is the attained age as of January 1, 1973. Some few beneficiaries were in fact aged 22 at time of interview and still receiving benefits, since the social security program pays benefits to the end of the semester in which the student reaches age 22. They are shown in tabulation as aged 21.

*Student employment*—Employment and earnings of the student are reported in the survey as the result of school-year work, summer work, and whether part of a school-sponsored work-study program integrated with the course of study. Aid in the form of student employment supported by the school or Federal programs is assumed to have been reported as part of a work-study program during the school year.

*Student benefits*—The monthly student benefit amount reported in the survey is taken from master beneficiary record data and represents the amount as of January 1, 1973. Benefit increases of 11 percent in 1974, 8 percent in June 1975, and 6.4 percent in 1976 have since been enacted. The annual student benefit amount is that for 1972 and reflects the 20-percent increase in effect for September through December.

*School year*—The 1972-73 academic year is used as the base for reporting school costs and educational income for high school and college students. Similar data for noncollege postsecondary students do not usually relate to costs for an academic year but rather to a training program of different and possibly longer duration.

*Basis of entitlement*—The death, disability, or retirement of the insured worker, who is normally the father of the student beneficiary, is the basis of entitlement to student benefits. About 2 percent receive student benefits because of a disabled mother, 7 percent because of a deceased mother, and 1 percent because of a retired mother.

## MISCELLANEOUS DATA ADJUSTMENTS

Because of differences in definition and survey methodology between the 1973 Survey and other data used for comparison purposes, certain ad-

justments at times were made to either set of data. Thus, high school students in the general population, as of October 1972, are all assumed to be full-time students. Data for college students in the general population, which include both full-time and part-time students, were adjusted for full-time study as needed by age and race, using factors between 80 and 93.<sup>42</sup> Data from the 1973 Survey will at times exclude vocational, business, secretarial, and technical students to establish comparability with other data. These and other adjustments required for reasonable comparisons are noted in the text.

### CHARACTERISTICS OF THE STUDENT

All data from the 1973 Survey are sample estimates for student beneficiaries and cannot pro-

<sup>42</sup> Bureau of the Census, *Current Population Reports*, Series P-20, No. 247, table 1, No. 260, table 14.

vide estimates of parents, families, or schools with student beneficiaries. This distinction derives necessarily from the fact that the sample drawn was of student children. The distinction is important, as the figures below show.

| Number of students in family | Number in universe (in thousands) |          | Percent in sample     |                            |
|------------------------------|-----------------------------------|----------|-----------------------|----------------------------|
|                              | Students                          | Families | Actual student sample | Hypothetical family sample |
| Total .. .                   | 588                               | 541      | 100                   | 100                        |
| 1..... - - -                 | 495                               | 495      | 84                    | 91                         |
| 2..... - - -                 | 87                                | 43       | 15                    | 8                          |
| 3 or more .. .               | 6                                 | 3        | 1                     | 1                          |

Eighty-four percent of those sampled were from families with no other students, but if the survey concerned families with student beneficiaries the figure would have exceeded 90 percent.