

Crucial Choices

*How Students'
Financial Decisions
Affect Their
Academic Success*

By Jacqueline E. King



American Council on Education
Center for Policy Analysis

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American Council on Education
One Dupont Circle NW
Washington, DC 20036

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Introduction

SCENE:

A departmental office at Any College, USA. Kelly, a student, comes in carrying a drop slip.

Secretary: How can I help you, dear?

Kelly: I'm dropping a class and I need this signed.

Secretary: Oh, that's a shame. Why are you dropping the course?

Kelly: I have to work and I can't handle five classes and my job, too.

Secretary: Goodness, dear, how much are you working?

Kelly: About 25 hours a week. It's a lot of time, but I have a bunch of bills to pay and I really don't want to take out any student loans.

Secretary: Have you visited the student aid office?

Kelly: What's the point? They'll just tell me to take out a student loan. I don't want any more debt — I already have a car loan and a credit card. I'll just take an extra semester to graduate. It's no big deal.

Secretary: All right, dear. Give me the form.

Every day, students like Kelly make decisions that affect their ability to complete a degree. They weigh some of these choices carefully, such as which college to attend. Yet they underestimate the impact of many other choices, such as whether to drop a course or accept more hours at work, not understanding the cumulative effect these decisions might have on their likelihood of completing a degree. Having more information on the consequences of student choices may help institutions influence students to make decisions that improve their chances of persistence. This report will demonstrate that, by working long hours and studying part time, students like Kelly are not only lengthening their time-to-degree, but also increasing their likelihood of dropping out. Given that more than half of all undergraduates attend college part time and 80 percent work while enrolled (U.S. Department of Education 2001), it is crucial that institutions understand and confront the effects of student choices on academic success.

This report examines the most recent evidence on the effects of students' choices on their prospect of succeeding in college. It attempts to describe students who are entering college, the academic background they bring with them, the resources they use to pay for their education, and the potential impact of their choices on the likelihood that they will graduate. The report pays particular attention to the characteristics and financing choices of low-income students, since these individuals are at greatest risk of dropping out.

The report addresses the following questions:

- What are the demographic characteristics of entering students and how do low-income students differ from those with greater financial resources?
- What is the academic background of entering students and how do their backgrounds differ by income?
- How do students pay for college and how do the financing patterns of low-income students differ from those of other students?
- What is the impact of students' financing choices on their academic success?

Why should the answers to these questions matter to campus leaders? They matter because colleges increasingly will be challenged to maintain and enhance graduation rates and, in many cases, to shorten time-to-degree. As the student population becomes more diverse in terms of age, race/ethnicity, and socioeconomic status, improving graduation rates will become more difficult. Understanding as much as possible about the critical links between students' financial decisions and academic success—especially for low-income students—will help campuses continue to refine their efforts to help all students succeed.

While it would be most helpful to have data for every state and even for every institution, insights derived from broader, national data can be a catalyst for research, program design, and policy innovation on the campus level. To help readers relate the national data to their local situation, each section of this report ends with a series of institutional self-study questions. Answering these questions should help campus leaders identify the extent to which their students mirror the national data.

DATA AND LIMITATIONS

The data for this report come from two national studies conducted by the U.S. Department of Education's National Center for Education Statistics. The National Postsecondary Student Aid Study: 1995–96 (NPSAS) provides a comprehensive

national picture of how students pay for college in a single year. It includes data from college records, student interviews, and federal student financial aid files for more than 35,000 undergraduate and graduate students. Approximately 12,000 students included in the 1995–96 iteration of NPSAS were first-time freshmen. These students were questioned again in fall 1998. The resulting longitudinal data set is called Beginning Postsecondary Students 1996/1998 (BPS). This report will rely on the BPS data to examine persistence among students who began college in 1995–96. While the three-year window of BPS does not allow researchers to measure bachelor's degree completion, it does indicate the percentage of students who have persisted into their third year and who are well on their way to completing a bachelor's degree.

This report will examine only undergraduates, as the BPS study encompasses only undergraduate students and no comparable national data set exists for graduate students. Furthermore, the financial resources and types of financial aid available to graduate and undergraduate students differ so sharply, and there are so many important distinctions among different types of graduate students, that it would be impossible to adequately describe both graduate and undergraduate students in a single publication. Since most policy discussions center on undergraduates, those students will be the subject of this report.

DEFINITION OF LOW-INCOME STUDENTS

Determining who is a low-income student might seem, at first, to be a simple matter, but this is not the case. Numerous student characteristics should be considered to make a fair determination of which college students truly are low income. The characteristics considered in this report are dependency status, attendance status, and family size.

The first step in assessing family income is to divide undergraduates into three groups: dependent students, independent students without dependents, and independent students with dependents. Dependent students are under the age of 25, unmarried, not veterans, and do not have children. When dependent students apply for financial aid, their parents' income and assets are considered in the determination of their financial need. Students are considered independent—and count only their own income and that of a spouse when applying for aid—if they are 25 or older, married, a veteran, or they have children. Independent students are further divided into those who do and do not have dependent children. These distinctions are critical when assessing student income.

The second consideration is attendance status. This characteristic is particularly important when assessing independent students' income. Some independent students may seem quite poor, but if they are attending college full time, this "poverty" may be a temporary condition. To control for this problem, this report uses students' income from the year prior to entering college.

Family size is the third characteristic used to determine which students are low income. A family of four with an income of \$30,000 usually is worse off than a family of two with the same income. The analysis in this report takes family size into account by converting income to a percentage of the federal poverty standard, which varies by family size. Because the federal poverty thresholds are very low, this report considers students to be low income if their income is at or below 150 percent of the poverty threshold. Eight out of 10 entering students falling into this income category who attended college at least half time and applied for aid received a Pell Grant, the primary federal grant for low-income students. Throughout the report, low-income students are compared with middle- and upper-income students who had incomes of at least 300 percent of the poverty level. **Table 1** summarizes: (1) the income thresholds for the federal poverty level by family size in 1994, the year before the subject students entered college, (2) 150 percent of those thresholds, and (3) 300 percent of the poverty thresholds.

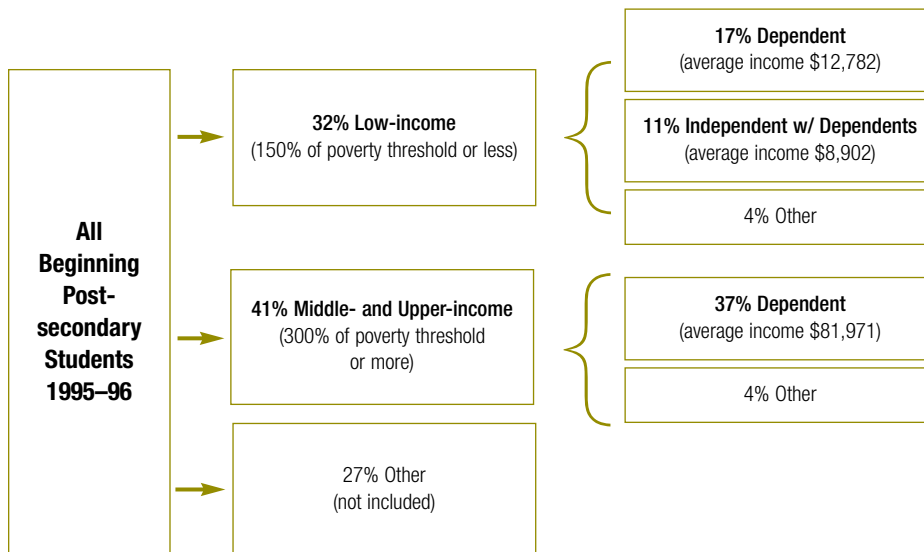
Family Size	Poverty Threshold	150% of Threshold	300% of Threshold
1	\$7,710	\$11,565	\$23,130
2	\$9,976	\$14,964	\$29,928
3	\$11,821	\$17,732	\$35,463
4	\$15,141	\$22,712	\$45,423
5	\$17,900	\$26,850	\$53,700
6	\$20,235	\$30,353	\$60,705

Source: U.S. Department of Health and Human Services, 1995.

Demographic Characteristics

As illustrated in **Figure 1**,¹ 32 percent of undergraduates who began college in 1995–96 came from families with incomes at or below 150 percent of the poverty threshold and 41 percent came from families with incomes of at least 300 percent of the poverty threshold. These two groups of students will be compared throughout this report because they provide a contrast between those at the low and high ends of the income spectrum. Figure 1 also shows that when dependency status is considered along with income, most of these students fall into one of three groups: low-income dependent students (17 percent of all beginning students); low-income independent students with dependents (11 percent); and

Figure 1
Distribution of Beginning Postsecondary Students, by Dependency Status and Income: 1995–96



¹ The data source for this figure, and all subsequent tables and figures, is U.S. Department of Education, National Center for Education Statistics, Beginning Postsecondary Students Study: 1996/1998.

middle- and upper-income dependent students (37 percent). The average income of students in these three groups ranged from \$8,900 for low-income independent students with dependents to approximately \$82,000 for middle- and upper-income dependent students. It is important to consider dependency status as well as income in this report because dependent students and independent students with dependents have different family obligations that affect their range of financing options.

There is no “typical” student, because the American undergraduate population is so diverse, but in 1995–96, the most common beginning postsecondary student was an 18-year-old, single, white female. Low-income undergraduates differ from this profile in several ways (see **Table 2**). They are even more likely than their middle- and upper-income peers to be female, but they also are more likely to be African

Table 2
Demographic Characteristics of Beginning Postsecondary Students,
by Income, 1995–96

	Low- income (%)	Middle- and Upper-income (%)	All Undergraduates (%)
Gender			
Male	40.3	50.0	45.5
Female	59.7	50.0	54.5
Race/Ethnicity			
White	52.0	80.0	68.0
African American	18.0	6.0	11.0
Hispanic	21.0	9.0	14.0
Asian American	8.0	4.0	5.0
American Indian	1.4	0.6	1.0
Other	0.8	0.4	0.0
Age			
19 or younger	56.0	85.0	71.0
20 to 24	21.0	5.0	12.0
25 or older	23.0	9.0	17.0
Family Status			
Not married, no children	65.0	93.0	81.0
Married, no children	3.0	4.0	4.0
Not married, children	23.0	1.0	9.0
Married, children	9.0	3.0	6.0

Note: Figures may not add to 100 percent due to rounding.

American, Hispanic, Asian American, or American Indian; 48 percent of low-income students are racial or ethnic minorities, compared with only 20 percent of middle- and upper-income students.

Low-income and middle- and upper-income undergraduates also significantly differ in age. Low-income undergraduates tend to begin college later in life than their middle- and upper-income peers. Only 56 percent of low-income students began college at age 19 or younger, compared with 85 percent of middle- and upper-income students. Almost one-quarter of low-income students enrolled in college for the first time at age 25 or older, compared with just 9 percent of middle- and upper-income students. Low-income students also are far more likely to have started a family. More than one-third of low-income students are married and/or have children and almost one-quarter are single parents. The vast majority of middle- and upper-income students are single and have no children. These demographic characteristics affect students' financing decisions.

QUESTIONS FOR INSTITUTIONAL SELF-STUDY

- What is the composition of your institution's entering class by income and dependency status? How does your institution's entering class compare to the profile in Figure 1 and Table 2? In particular, what percentage of entering students are parents?
- What are the implications of your entering student profile for the financing choices students are likely to make and the institutional services and support they will need? For example, if your institution has a large population of independent students with dependents, would expanding child care enable students to take more classes each term? Are special counseling services needed to help students balance work, family, and academic obligations?

Academic Background

Many academic background factors negatively affect persistence. Students who do not take rigorous high school courses, who earn an alternative high school credential, who do not enter college immediately after high school, or whose parents did not attend college are more likely than other students to drop out before earning a degree (Adelman 1999, U.S. Department of Education 1995).² Unfortunately, low-income students are more likely than other undergraduates to possess each of these “high-risk” characteristics (see **Table 3** and **Table 4**, page 11).

	Low-income (%)	Middle- and Upper-income (%)	All Undergraduates (%)
Parents' Education			
No high school credential	12.0	2.0	7.0
High school graduate	52.0	31.0	42.0
Some college/AA/certificate	18.0	18.0	18.0
Bachelor's degree	14.0	26.0	19.0
Graduate degree	5.0	24.0	14.0
High School Completion			
Traditional diploma	82.5	94.7	90.4
Alternative credential	12.9	3.4	7.0
No high school credential	4.5	2.0	2.7
Delayed Entry to Higher Education	56.2	23.3	38.7

² Several institution-based studies found no difference in persistence between students with a high school diploma and those with an alternative credential (Beltzer 1985; Wilson, Davis, and Davis 1981).

As shown in Table 3, two-thirds of low-income beginning students come from families in which neither parent attended college (12 percent did not complete high school and 52 percent earned only a high school diploma), compared with one-third of middle- and upper-income students. Conversely, 50 percent of middle- and upper-income students have at least one parent who earned a bachelor's degree or higher, compared with less than 20 percent of low-income students. First-generation college students face many disadvantages: They have far less experience and information on the social and academic culture of higher education, and they may not be able to rely on their parents for assistance in these matters.

Previous research has shown that students who do not earn a traditional high school diploma and those who delay entry into higher education after high school are more likely to drop out of college than other students (U.S. Department of Education 1995). Although the vast majority of entering students have earned a regular high school diploma, low-income students are more than four times as likely as middle- and upper-income students to have earned an alternative credential (13 percent of low-income students versus 3 percent of middle- and upper-income students). More important, low-income students are much more likely than more affluent students to delay entry into higher education after completing high school. More than half of low-income students delayed entry into higher education, compared with 23 percent of middle- and upper-income students.

The BPS data include extensive information on the high school curriculum and achievement of students who began college in 1995–96. Adelman's research (1999) shows that one of the most important factors influencing college success is the rigor of a student's high school curriculum. This variable is even more important than high school grades and test scores. BPS only includes this information for students who took a college entrance examination; since only four-year institutions require these examinations, no information is available for students who had determined in high school that they would attend a two-year or less-than-two-year institution.

With regard to admissions test takers, the difference in high school curriculum between low-income students and their peers is significant. As detailed in Table 4, 22 percent of low-income students completed at least a moderately rigorous high school curriculum (four years of English; three years each of math [including Algebra II], social science, and science [including biology, chemistry, and physics]; and two years of a foreign language). In comparison, 36 percent of middle- and upper-income students completed at least a moderately rigorous high school curriculum. Conversely, for half of low-income students, their high school courses were not rigorous, compared with 31 percent of middle- and upper-income students.

Table 4
High School Curriculum of Beginning Postsecondary Students, by Income: 1995–96

	Low-income (%)	Middle- and Upper-income (%)	All Undergraduates (%)
Not rigorous	51.0	30.9	38.4
Slightly rigorous	27.0	33.0	30.8
Moderately or highly rigorous	22.0	36.1	30.7

Note: Data available only for students who took the SAT or ACT college admissions examination.

In summary, low-income students are more likely than more affluent students to have earned an alternative credential and to have delayed their entry into postsecondary education. In addition, most low-income students are first-generation college attendees. Among those who take admissions tests, low-income students are less likely than middle- and upper-income students to have completed a rigorous high school curriculum.

Previous research suggests that students who devote most of their time to their studies and to developing a close connection with their campus community are most likely to persist (Pascarella and Terenzini 1991). Given the deficits in academic preparation and experience they must overcome, devoting adequate time to studying and forging ties with the campus community is of particular importance to low-income students. The financing resources available to these students—and the financing choices they make—can either facilitate this process or erect roadblocks that make achieving academic success even more difficult.

QUESTIONS FOR INSTITUTIONAL SELF-STUDY

- What proportion of the entering class are first-generation students? What special support will these students require?
- What proportion of new students have delayed entry into higher education? How much remedial coursework might these students need?
- How might financing choices facilitate or impede the academic success of under-prepared students?

College Financing

Students draw upon many different resources to pay for college. Most begin with a certain amount of family resources—primarily in the form of income—and choose institutions that vary in how much they charge and how much grant aid they have available. Students also make choices that determine their living expenses, such as whether to live on campus or at home. Then, they make up whatever difference exists between their family’s resources and their total student budget (adjusted for their attendance pattern and living situation, and reduced by any grant aid they may have received) through a combination of work, student loans, and commercial credit. The BPS data describe the different means and financing choices of low-income students and their more affluent peers.

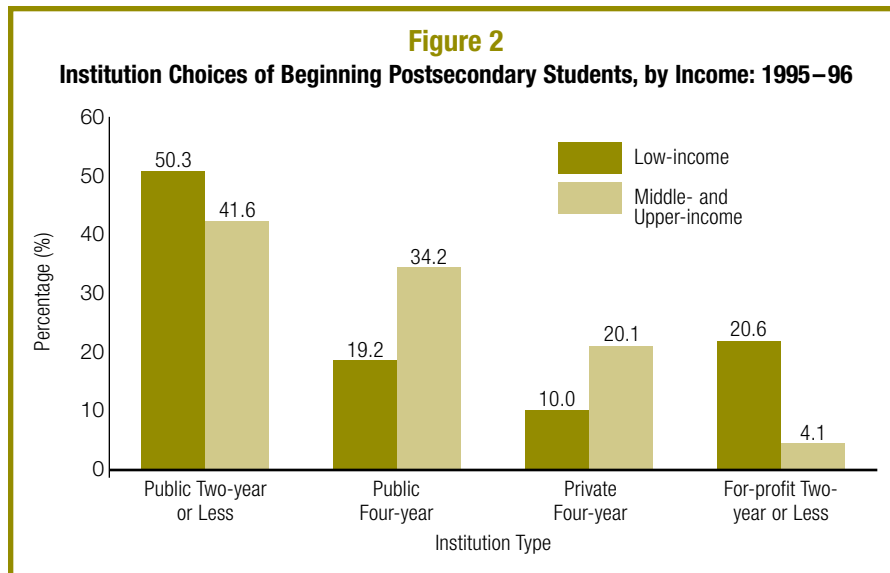
INSTITUTIONAL TYPE AND PRICE

Whether for academic or financial reasons (or a combination of the two), low-income students are more likely than their academic peers to choose institutions that offer programs of two years or less. As illustrated in **Figure 2** (see next page), low-income students are somewhat more likely than their middle- and upper-income peers to attend public community and vocational colleges (50 percent versus 42 percent) and are far more likely to attend two-year and less-than-two-year for-profit institutions (21 percent versus 4 percent).³ Conversely, low-income students were less likely than middle- and upper-income students to attend public and private not-for-profit four-year institutions. More than half of middle- and upper-income freshmen began at four-year institutions, compared with 29 percent of low-income freshmen.

Analysts define the price of attending college in many ways. The definitions of total price and net price used in this report are based on the total student budget. This budget includes institutional charges for tuition, fees, and on-campus room and board for a full-time/full-year student, as well as institutions’ estimates of expenses for such items as books and supplies, transportation, entertainment, and housing for commuter students.⁴ Low-income students save money by choosing institutions

³ The 1.5 percent of first-time freshmen attending private, not-for-profit two-year and less-than-two-year institutions and for-profit four-year institutions are excluded from this analysis.

⁴ These estimates reflect the institution’s best approximation of the amount students reasonably should spend on these items. They cannot reflect the wide variance in actual student expenditures.



with shorter academic programs—not substantially lower annual total prices. Overall, low-income students in 1995–96 chose institutions with an average annual total student budget that was only about \$1,500 less than the average total price of institutions chosen by middle- and upper-income students. Low-income students are somewhat more likely to attend lower-priced community colleges and are less likely to attend more expensive four-year institutions. However, 21 percent of low-income students chose for-profit institutions, which carried an average annual total student budget of \$10,000. Low-income students face annual total prices that are similar to those paid by their middle- and upper-income peers but, because they are more likely to attend two-year and less-than-two-year institutions, their total multi-year educational costs are less.

Price Definitions Used in this Report

Total Student Budget—Also called the total price, this figure includes institutional charges for tuition, fees, and on-campus room and board for a full-time/full-year student, as well as institutions’ estimates of expenses for such items as books and supplies, transportation, and entertainment.

Adjusted Student Budget—This figure is the total student budget adjusted to reflect attendance status and housing choice.

Net Price—The adjusted student budget less any grant aid received.

Unmet Need—The adjusted student budget less all aid (including loans) and the student’s expected family contribution.

When low-income students choose among institutions of the same type, they generally do not make choices that save them much money. For example, when choosing among public four-year colleges, low-income undergraduates selected institutions with an average total budget that was \$1,000 lower than the average budget of institutions chosen by middle- and upper-income freshmen. At private four-year institutions, price varied more between student groups: The average total budget for low-income students attending private institutions was lower than the average total budget for middle- and upper-income students by about \$4,300. At community colleges and for-profit institutions, there was little difference in the average price of institutions chosen by low-income students and their middle- or upper-income peers.

The finding that low-income students do not tend to choose less expensive institutions than their middle- and upper-income peers is not as surprising as it initially may appear. Price is only one factor among many that students consider when choosing an institution. Location, selectivity, and curricular offerings all play a major role in student choice. In fact, when asked to name the most important factor influencing their choice of institution, low-income students were no more likely to name a price-related factor than middle- and upper-income students.

ATTENDANCE STATUS, LIVING ARRANGEMENT, AND ADJUSTED STUDENT BUDGET

Other factors influencing the prices that students pay are attendance status (whether they attend on a full- or part-time basis and for either a full or partial academic year) and whether they live on campus, off campus, or with their parents. The data in **Table 5** (see next page) show that the beginning student population is split almost evenly between those who study full time/full year (53 percent) and those who attend part time and/or part year (47 percent). Low-income beginning students are less likely to study full time/full year than middle- and upper-income freshmen (42 percent versus 64 percent). Of course, the prevalence of less-than-full-time/full-year attendance varies by type of institution. For example, one-quarter of entering students at for-profit institutions attend full time/full year, versus nearly 80 percent of entering students at private four-year institutions.⁵ At all types of institutions, low-income students are less likely than middle- and upper-income students to attend full time/full year.

⁵ In this analysis, a full academic year is considered nine months. Many programs at for-profit institutions operate on a shorter schedule. Students attending such programs full time would not be considered full time/full year in this analysis.

Table 5		
Distribution of Beginning Postsecondary Students, by Income, Attendance Status, and Institution: 1995–96		
	Full-time/ Full-year (%)	Less than Full-time/ Full-year (%)
	All Institutions	
All Students	52.7	47.3
Low-income	42.4	57.6
Middle- and Upper-income	63.8	36.2
	Public Two-year or Less-than-two-year	
All Students	29.6	70.4
Low-income	23.5	76.6
Middle- and Upper-income	37.0	63.0
	Public Four-year	
All Students	72.9	27.1
Low-income	62.4	37.6
Middle- and Upper-income	78.4	21.6
	Private Four-year	
All Students	79.2	20.8
Low-income	65.1	34.9
Middle- and Upper-income	84.9	15.1
	For-profit Two-year or Less-than-two-year	
All Students	25.4	74.6
Low-income	24.2	75.8
Middle- and Upper-income	29.5	70.5
Note: Figures may not add to 100 percent due to rounding.		

In terms of living arrangements, 30 percent of all beginning students live on campus, 27 percent live off campus, and 43 percent live with their parents or other relatives. Most two-year and less-than-two-year institutions do not offer on-campus student housing. At four-year institutions, almost two-thirds of beginning students live on campus. Low-income students are far less likely than middle- and upper-income students to live on campus at four-year institutions (45 percent versus 75 percent). Many low-income students are older and have their own families; these students may prefer to remain in their existing homes or apartments, or the institution they attend may not offer suitable accommodations. Another explanation is that low-income students are twice as likely as middle- and upper-income students to choose to live with their parents. At four-year institutions, 35 percent of low-income freshmen live with their parents, compared with 16 percent of middle- and upper-income beginning students. There are many reasons why students might choose this option, but the cost saving is likely a primary reason for living at home.

When the total student budget is adjusted for students' attendance status and housing choices, the average price for all entering undergraduates drops by 20 percent. At community colleges and for-profit institutions, where the majority of students study part time and many live at home, the average adjusted student budget is lower than the average total student budget by \$2,600 and \$3,000, respectively. This amount varies little by student income. At both public and private four-year institutions, where low-income students are somewhat more likely to live on campus and study full time, there is less difference between the average total and adjusted student budget. At public institutions, these choices reduce the average student budget only by approximately \$1,000. Again, this amount varies little by student income. Low-income students at private four-year institutions save more than their middle- and upper-income peers; their average adjusted student budget is approximately \$2,200 less than the average total student budget. For middle- and upper-income students at these institutions, the average adjusted student budget is \$1,250 less than the average total student budget. Of course, averages can mask great variation; some students reap significant savings by attending part time and/or by living at home. Nonetheless, in general, students make living and attendance choices that save relatively little money.

By contrast, students' attendance and housing choices can significantly affect their ability to succeed in college. Attending full time may result in higher annual costs, but it also can shorten time-to-degree, resulting in lower total expenses over a college career. In addition, research has consistently shown that, after other contributing factors such as family income and prior academic preparation are taken into account, students who attend college full time are more likely to complete a degree than those who attend part time (Pascarella and Terenzini 1991). Studies also have shown that students who live on campus are more likely to persist than students who live off campus or with their parents (Pascarella and Terenzini 1991).

GRANTS AND NET PRICE

Eighty-three percent of low-income freshmen applied for financial aid for the 1995–96 academic year. In contrast, 62 percent of all middle- and upper-income freshmen applied for assistance. Most students—and especially those with incomes less than 150 percent of the poverty threshold—will likely receive assistance if they apply for it. In general, 69 percent of incoming students who applied for aid received grants averaging \$3,006. Among low-income freshmen, 86 percent of those who applied for financial aid received grant assistance averaging \$2,857. In contrast, 52 percent of entering middle- and upper-income students who applied for aid received grants, but the average amount that these students received was slightly greater, at \$3,322.

This difference in the average grant aid received reflects the fact that a higher proportion of middle- and upper-income students attend more expensive private institutions that offer significant amounts of institutional grant assistance.

When grant assistance is taken into account in addition to living situation and attendance pattern, the average net price for all entering students (whether or not they received grants) is reduced by 33 percent, compared with the total price. Grants reduce the average price for low-income students by 45 percent, or by \$3,700 to \$7,750, depending on type of institution. When grants are deducted, low-income students face substantially lower prices than middle- and upper-income students—especially at public and private four-year institutions. This pattern reflects the fact that most grant assistance is based on financial need—low-income students, of course, demonstrate more need than students with greater financial resources. Despite this grant assistance, low-income students still must pay an average of \$5,400. This is equivalent to 42 percent and 61 percent of average family income, respectively, for low-income dependent students and independent students with dependents. In contrast, the \$8,745 average net price faced by middle- and upper-income dependent students is equivalent to 11 percent of their average family income. Clearly, despite lower net prices, low-income students will experience far more financial difficulty than their middle- and upper-income peers.

STUDENT LOANS

Despite the financial burden faced by low-income students, they are not much more likely to borrow than their middle- and upper-income peers. One-third of low-income freshmen received student loans in 1995–96, versus 27 percent of middle- and upper-income entering students. Because annual borrowing limits in the federal student loan programs are relatively low (\$2,625 for dependent freshmen and \$6,625 for independent freshmen), the amount students borrow varies little by income. For both groups, the average loan is about \$3,000. Relying on student loans is a less popular choice for both income groups than either attending part time or living at home.

Although many low-income students avoid student loans, those who do borrow often accrue substantial debt over the course of their academic careers. Low-income students who persist to graduation are more likely to borrow and accrue more debt than their middle- and upper-income peers.

Table 6
Average Unmet Need of Beginning Postsecondary Students,
by Income and Type of Institution: 1995–96

	Public Two-year or Less	Public Four-year	Private Four-year	For-profit Two-year or Less	All Institutions
All Students	\$1,455	\$1,816	\$3,786	\$4,073	\$2,182
Low-income	2,704	3,151	5,275	5,193	3,556
Middle- and Upper-income	245	773	2,881	1,026	994

UNMET NEED AND EMPLOYMENT

When the expected family contribution (EFC), grants, loans, and other assistance (such as employer aid) are deducted from the adjusted student budget, the remaining amount is a student's unmet need.⁶ When students have no unmet need, it means that they have received enough aid to pay the entire net price of college, less the EFC. Low-income students face a lower average net price than middle- and upper-income students. However, because low-income students' average family contribution is very small, their average unmet need is more than three times that of middle- and upper-income undergraduates (\$3,556 versus \$994). The \$3,556 in unmet need faced by low-income undergraduates is equivalent to 28 and 40 percent of average annual income for low-income dependent students and independent students with dependents, respectively. In contrast, the \$994 unmet need of middle- and upper-income dependent students is equivalent to only 1 percent of average annual family income.

Table 6 details unmet need by type of institution. Except for students at for-profit institutions, low-income freshmen have approximately \$2,400 more average unmet need than middle- and upper-income freshmen. At for-profit institutions, low-income students face \$4,000 more in average unmet need than their middle- and upper-income peers.

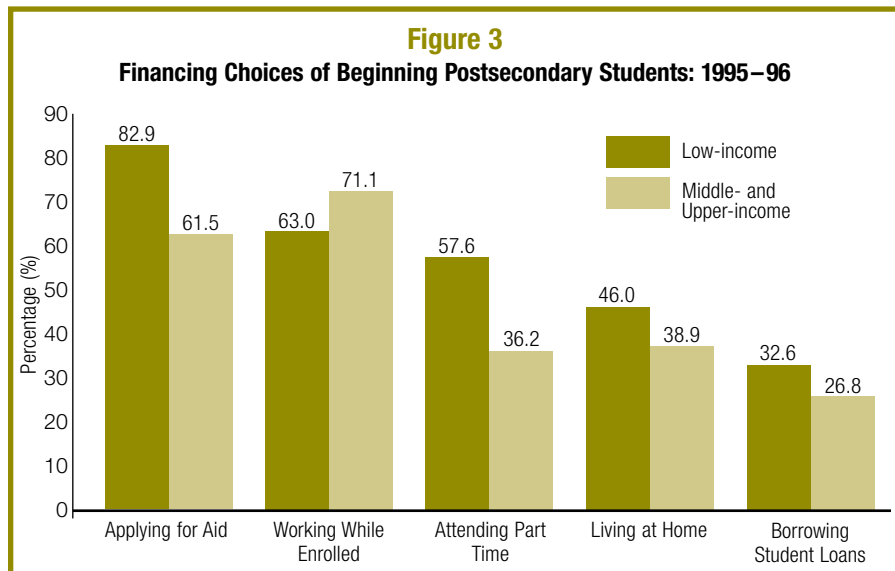
Most students work during the academic year, at least in part to compensate for their unmet need. Despite their higher unmet need, low-income students are somewhat less likely to work than their middle- and upper-income peers: Sixty-three percent of low-income freshmen worked during the 1995–96 academic year, compared with 71 percent of middle- and upper-income students. However, low-income

⁶ EFC is defined by a federal formula that takes into account student income and—in the case of dependent students—parental income, assets, family size, and number of family members in college.

dependent students are as likely to work, and to work about the same number of hours per week, as middle- and upper-income dependent students. Low-income independent students with dependents, who account for more than one-third of low-income freshmen, are less likely to work than their dependent peers—most likely because of their child-rearing responsibilities.

In addition, differences in income seem to have little impact on the role that work plays in students' lives. Students were asked whether they consider themselves primarily a student who works to meet college expenses or primarily an employee who also is attending classes. Only one-third of working low-income students and one-quarter of middle- and upper-income working students consider themselves employees who study. Despite the fact that they consider themselves students first, these “students who work” spend an average of 24 hours per week on the job.

In summary, low-income students generally do not choose institutions that are significantly less expensive on an annual basis than those chosen by middle- and upper-income students. Low-income students' most popular strategies for lowering their college expenses are, in order of frequency: applying for aid, working, and attending college part time (see **Figure 3**). The least popular strategy for students at all income levels is borrowing student loans.



QUESTIONS FOR INSTITUTIONAL SELF-STUDY

- What proportion of entering students study full time/full year? Does this proportion vary significantly by student income? What is the academic track record of students who enroll part time at your institution?
- If your institution offers on-campus housing, are low-income students less likely to choose this option? If so, why?
- What is the average unmet need at your institution, and how does it vary by student income?
- What proportion of students at your institution borrow? Among those who do not borrow, what are the primary reasons for not choosing this financing vehicle?
- What proportion of students at your institution work and for how many hours per week? How many would describe themselves primarily as a student who is working to meet college expenses, as opposed to an employee who is also taking classes? Among the “students who work,” how many spend more than 15 hours per week on the job?

Financing Choices and Persistence

The financing choices students make can have a substantial impact on their academic success. **Table 7** (see next page) shows the percentage of 1995–96 first-time freshmen who had either attained a certificate or degree, were still enrolled, or had dropped out by fall 1998, for each of the financing choices detailed earlier. It shows that, in general, 32 percent of 1995–96 entering freshmen had dropped out with no degree by the spring of 1998, 19 percent still were enrolled at two-year or less-than-two-year institutions, 37 percent still were enrolled at four-year institutions, and 11 percent had earned an associate degree or certificate and left higher education. In general, students who were least likely to drop out pursued a very traditional pattern: They began at four-year institutions, studied full time, lived on campus, and worked part time (one to 14 hours per week).⁷

This basic pattern varied somewhat by income. Not surprisingly, given their stronger academic background, middle- and upper-income students were less likely to have dropped out than low-income students. One-quarter of middle- and upper-income freshmen had left college without a degree by 1998, compared with 40 percent of low-income freshmen. For both groups of students, however, starting at a four-year institution, attending full time, living on campus, and working part time were associated with better-than-average persistence. Borrowing student loans and working part time produced the lowest dropout rate for both groups of students. Among both groups, students who worked part time persisted at higher rates than students who did not work at all. This finding, which at first seems counterintuitive, has been replicated across numerous studies (Pascarella and Terenzini 1991). The research literature suggests that students who work part time (and particularly those who work on the campus) are more connected to the institution, manage their time more effectively, and are more focused on their academic work than students who don't

⁷ It is important to note that some students may have had no intention of completing a degree or certificate program. This is particularly likely at community colleges. In addition, some students who had dropped out as of 1998 will return to complete their degree. Among 1989–90 beginning students, two-thirds of those who left during or after their first year returned within four years.

Table 7
**1998 Degree Attainment and Enrollment Status of Beginning Postsecondary Students,
 by Various First-year Financing Choices**

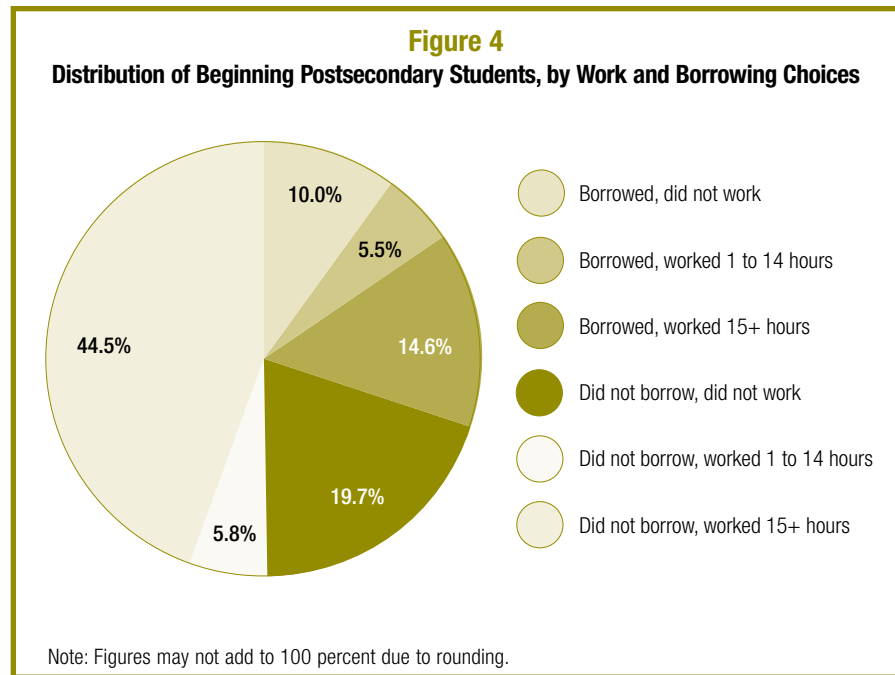
	No Degree, Not Enrolled (%)	Still Enrolled, Two-year or Less (%)	Still Enrolled, Four-year (%)	Attained an AA or Certificate (%)
All Students	32.3	19.4	37.4	10.8
Institution Type				
Public two-year or less	43.6	32.6	14.4	9.4
Public four-year	18.8	6.3	72.7	1.7
Private four-year	17.2	5.3	75.7	1.5
For-profit two-year or less	34.8	11.4	2.7	51.2
Attendance Pattern				
Full-time/full-year	15.8	14.9	60.5	8.6
Less than full-time/full-year	48.0	23.3	15.6	13.0
Residence				
On campus	15.4	5.7	76.5	2.1
Off campus	44.7	19.0	18.3	17.5
With parents or relatives	36.1	28.4	23.8	11.7
Filed Financial Aid Application				
No	37.3	25.0	29.0	8.5
Yes	30.5	17.3	40.5	11.5
Borrowed Federal Student Loan				
No	35.4	22.9	32.0	9.5
Yes	25.0	10.7	50.2	13.7
Hours Worked per Week While Enrolled				
None	26.7	14.9	44.1	14.2
1 to 14	15.8	13.2	64.8	5.7
15 to 34	30.6	26.7	31.7	10.8
35 or more	52.8	20.9	14.6	11.6
Working and Borrowing Status				
Borrowed, did not work	25.5	8.5	50.4	15.4
Borrowed, worked 1 to 14 hours	10.6	6.0	78.3	4.4
Borrowed, worked 15+ hours	27.6	16.2	38.5	17.1
Did not borrow, did not work	27.3	18.2	40.9	13.6
Did not borrow, worked 1 to 14 hours	21.4	13.8	58.8	5.4
Did not borrow, worked 15+ hours	42.0	26.6	22.4	8.8

Note: Figures may not add to 100 percent due to rounding.

work at all. Borrowing had a stronger correlation with persistence among low-income students: Those who combined borrowing with part-time work were more likely to persist than those who worked part time but did not borrow.

The importance of combining student loans with part-time work to the persistence of low-income students may be explained by the relationship between work and borrowing, on the one hand, and attendance status and institution type, on the other. Low-income students who borrowed and worked part time were far more likely to attend on a full-time/full-year basis; 82 percent of these students attended full time and for a full year. In contrast, only 27 percent of students who did not borrow and worked 15 hours per week or more attended full time/full year. Interestingly, low-income students who did not work at all were less likely to attend full time than those who worked part time. Of course, some low-income students—especially single parents—simply did not have the time to work or may have jeopardized their government benefits by working. Even among dependent students, those who worked part time were more likely to attend full time/full year than those who did not work. Low-income students who combine borrowing with part-time work can best afford—both financially and in terms of time—to attend on a full-time/full-year basis. Those who forgo borrowing and work more than part time may have every intention of attending full time but, like Kelly, drop to less than a full-time course load because they cannot manage full-time attendance and a heavy work schedule.

For low-income students, borrowing student loans and working one to 14 hours per week also are highly correlated with attendance at a four-year institution—another predictor of persistence. Three out of four students who borrowed and worked part time attended a four-year institution, compared with just 18 percent of those who did not borrow and worked 15 hours per week or more. Most likely, both work and borrowing were necessary for low-income students to afford a four-year institution. Nonetheless, students at two-year and less-than-two-year institutions who borrowed and worked part time also were far less likely to drop out than other students at these institutions. Only 9 percent of these students had dropped out by 1998, compared with 45 percent of all low-income students who began at two-year or less-than-two-year institutions. The pattern is similar, if not as dramatic, at four-year institutions. Thirteen percent of low-income students at four-year institutions who borrowed and worked part time as freshmen had dropped out by 1998, compared with 27 percent of all low-income students at these institutions.



Borrowing and working part time are clearly associated with success for students at all income levels, and especially for low-income students, yet less than 6 percent of freshmen adopted this strategy (see **Figure 4**).⁸ In fact, the largest group of freshmen (45 percent) chose the financing strategy that is least associated with success: borrowing nothing and working 15 or more hours per week. As discussed above, this pattern varies little with student income. Even those middle- and upper-income students who could best afford to follow this strategy chose instead to avoid student loans and work 15 or more hours per week.

Why are students making counterproductive choices? One explanation may be that students assume it will be less expensive in the long run to attend college part time and avoid student loan debt. For many students, this is not the case. Of course, for those who drop out because they cannot adequately juggle college with work, the cost of working too many hours while enrolled is enormous. These individuals will pay for the rest of their lives in lost earning power. However, even those students who simply extend their undergraduate career will pay in opportunity costs because they are delaying their entry into the job market as full-time, college-educated workers.

⁸ It is important to note that 15 percent of freshmen borrowed and worked 15 or more hours per week. These students would require additional grant assistance in order to reduce the amount they work.

Table 8	
Simulation of Income and Expenses Associated with Work and Borrowing Scenarios	
Wendy	
Works 25 hours/wk @ \$7.50/hr during academic year for 32 wks	\$6,000
Works 40 hours/wk @ \$7.50/hr during breaks for 16 wks	4,800
Total income	10,800
Fifth year of tuition, books, and supplies	5,000
Total expenses	5,000
Net gain	\$5,800
Paul	
Earnings from post-BA job	\$30,000
Total income	30,000
Borrowed \$10,000 to compensate for working 15 hours/wk over four academic yrs	
\$7.50/hr for 15 hrs/wk over 32 wks = \$3,600. \$6,000 – \$3,600 = \$2,400	
Total cost of \$10,000 loan @ 7.5% interest over 10 yrs	14,244
Total expenses	14,244
Net gain	\$15,756
Note: In both scenarios, living expenses are assumed to be constant.	

Table 8 illustrates the cost of this approach for two students attending a public four-year institution. Wendy does not borrow, works 25 hours per week, and, as a result, must take an extra year to graduate. Once her extra educational expenses are deducted from her earnings, she nets \$5,800 during her fifth year of college.⁹ Paul borrows \$2,500 each year to allow him to work only 15 hours per week and, as a result, to graduate in four years. During the fifth year, Paul, who has graduated, earns \$30,000. Even if the total cost of his \$10,000 loan is assigned to that first year after graduation, Paul nets \$15,756. In this scenario, working 25 hours per week cost Wendy about \$10,000. Each student's situation will differ, and this simulation ignores many other costs that students may incur when they either stay in college or move into the workforce. For some students, working longer hours and taking a longer time to graduate may be unavoidable and, in some cases, might even be in the student's best financial interest. The concern is that students appear to be making these choices without running through the set of calculations illustrated in Table 8.

⁹ This analysis assumes that the living expenses of both students are the same and therefore excludes those costs.

Many students may make crucial choices based on misinformation or faulty assumptions about the relative cost of the various options. These choices have serious consequences for all students, but they deal the hardest blow to low-income students, many of whom are first-generation college attendees who are not adequately prepared academically for college.

Student choices also have important consequences for institutions. Every institution wants—and is expected—to maximize its graduation rate. If a large proportion of the student body is working and attending part time, achieving this goal may prove very difficult. In many states, colleges and universities also are experiencing significant growth in enrollment. Colleges are implementing numerous strategies to accommodate the influx of new students, such as offering courses year-round and via the Internet. One of the most efficient, cost-effective means to accommodate growth is to lessen time-to-degree. If students move through their academic programs efficiently, they will graduate and make room for new students. When students carry less than a full-time load, they extend their time-to-degree, placing additional strain on campus resources. Helping students make wise financial decisions will pay dividends not only for individual students, but also for institutions.

In summary, the five financing choices that are related to student success are: type of institution, attendance status, housing arrangement, student loans, and employment. The message from these data is that the traditional choices—living on campus and studying full time—remain the factors most associated with academic success. This traditional approach is more expensive, but it pays off in the long run in several ways: increased likelihood of graduation, shorter time-to-degree, and lower opportunity costs. Unfortunately, for many low-income students, family obligations place these choices out of reach: One-third of low-income freshmen are independent students with dependents. Nonetheless, two-thirds of low-income freshmen do not have dependents; more students in this income category conceivably could make at least some of the choices that are associated with degree attainment if they had better information about how their choices can affect their academic progress.

Many middle- and upper-income students also could choose to work less and borrow student loans to pay their expenses. Given the higher unmet need of low-income students, it seems illogical that middle- and upper-income freshmen work as many hours per week as their low-income peers. Some middle- and upper-income students may be working to pay part of the EFC because their parents cannot or will not contribute as much as the formula suggests they can afford. Others may be working to support a lifestyle that costs more than the amount estimated in the college budget. In many cases, both explanations may be true.

Another possible explanation of students' work and borrowing choices, but one for which we have little systematic data, is that students at all income levels are compounding the cost of their lifestyle choices by using a credit card to pay for these purchases. The BPS survey does not contain any information on credit card use, but the 1999–2000 version of NPSAS contains several questions on credit cards. The responses reveal that more than half of dependent freshmen in 1999–2000 possessed at least one credit card.¹⁰ Among those with a credit card, nearly half carry a balance each month, and that balance averages \$1,400. These debt levels could push many students into working longer hours.

While credit cards offer convenience, if students carry a balance, they usually would be better off using a student loan instead. There is no data on the interest rates that these students pay on their credit cards, but it is safe to assume that, in most cases, the rates on their credit cards exceed the maximum interest rate on student loans of 7.5 percent. Moreover, student loan repayment does not begin until six months after a student leaves school, while credit card payments begin immediately. As noted, in 1999–2000 more than 50 percent of dependent freshmen possessed a credit card. Only 27 percent of these students took out a student loan. Many students appear to be choosing a more expensive form of credit that may be exacerbating their need to work.

QUESTIONS FOR INSTITUTIONAL SELF-STUDY

- Is there a relationship between working, borrowing, and academic success for various groups of students at your institution? Is borrowing or working associated with part-time attendance at your institution? What other financing choices are associated with student success at your institution?
- How much does an extra year cost your students in terms of additional educational expenses and lost income? Does this amount vary appreciably based on student major or other characteristics?
- What effect do students' financing choices have on your institution's graduation rate and average time-to-degree?
- How dependent are your students on credit cards? Does credit card debt influence the amount of time students at your institution work?

¹⁰ Independent students are excluded from this analysis because, like other American adults, most of them possess credit cards.

Conclusion

This report has described the demographic and academic background of entering college students and discussed how these students pay for college. It also has delineated the choices students can make to improve the likelihood that they will complete a college degree. The data show that low-income students arrive at college with many strikes against them. Among other characteristics, they are more likely to have children, to be the first in their family to attend college, and to have completed a high school curriculum that is not rigorous. Even after receiving grants, they must find an average of \$5,400 in additional resources to meet their college expenses.

The data presented in this report suggest that students often make choices that may negatively affect their academic performance for several reasons: to contain the price of attending college; to support lifestyle choices, such as living off campus or carrying a credit card balance; and, in some instances, to devote time to their dependents. Students also may be making certain choices because they do not have adequate information about the possible consequences and available alternatives. The question that these data pose for institutions is how to steer students toward making choices that suit their individual needs and maximize their likelihood of academic success.

Low-income students especially may find it difficult to make better choices because their level of unmet need is so high. Continued efforts to moderate college price increases and provide additional grant funding will help these students face lower levels of unmet need. That said, improvement in college affordability alone is not sufficient to solve this problem. More time and attention must be devoted to counseling students on college campuses, in high schools and community-based organizations, and through federal TRIO programs about the costs, benefits, and consequences of making various financing choices. Counseling students to attend college full time and work part time is not helpful if students do not have enough grant funding to make such a choice. However, additional grant funding will be most effective if students are counseled on the best ways to invest that money in their future academic success. Likewise, additional borrowing can only be helpful when students understand how to use the credit wisely.

An important option that campuses can pursue to assist low-income students (and their middle- and upper-income peers as well) is to forge stronger links between academic and financial advising. How often do students like Kelly approach professors or other academic advisers asking to be released from a course because their work schedule does not allow them to handle a full courseload? How do faculty members respond? Can the academic adviser refer that student directly to a financial counselor? Could the academic adviser help a student determine if dropping a course is in his or her financial—as well as academic—best interest? Is the importance of making the right choices about work, attendance, housing, and borrowing emphasized in student and parent orientation programs, academic advising sessions, and other such opportunities? Could work-study jobs be more closely linked to students' academic coursework? Do faculty understand how many hours students spend working and the effects of that work on their academic performance? Do students know how to use credit cards responsibly? What special programs are available to low-income students who so often enter college underprepared academically and with so few financial options?

There are no “right answers” that will suit all students or all institutions, but every student can be helped by having a clearer understanding of the costs, benefits, and potential pitfalls associated with the various options. Such a shift in thinking will help individual students reach their academic goals and may free vital space and resources at institutions that must accommodate a large influx of new students.

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