

**IMPROVING EDUCATIONAL OPPORTUNITIES  
FOR COLLEGE STUDENTS WHO WORK**

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## **IMPROVING EDUCATIONAL OPPORTUNITIES FOR COLLEGE STUDENTS WHO WORK**

College students who cannot pay the price of attendance from some combination of personal financial resources and grants typically have three options: do not attend college, borrow money using public and private loans, and/or work. Data show that increasing shares of students are utilizing both loans and work to pay for college-related expenses (Baum, 2005). Much attention has focused on growth in borrowing (e.g., Baum, 2005; Perna, 2001), as well as potential consequences of borrowing for various aspects of students' educational experiences, including persistence and degree completion (DesJardins, Ahlburg, & McCall, 2002; St. John, 2003) and graduate school enrollment (Choy & Carroll, 2000; Ehrenberg, 1991; Fox, 1992; Perna, 2004; Weiler, 1991).

Less attention has focused on the consequences of working, even though most students work some number of hours while they are enrolled, regardless of the type of institution they attend (Choy & Berker, 2003; King & Bannon, 2002; McMillion, 2005; NPSAS:04). The percentage of full-time college students who are employed has increased steadily over the past three decades, rising from 36 percent in 1973 to 48 percent in 2003 (Fox, Connolly, & Snyder as cited in Baum, 2005). The share of full-time college students who work at least 20 hours each week has also been growing, rising from 17 percent in 1973 to 30 percent in 2003 (Fox et al. as cited in Baum, 2005).

College students may realize several benefits from employment, including earning the financial resources that are necessary to pay college-related expenses and/or the costs of life-style choices and acquiring career-related knowledge and experiences. However, time spent

working necessarily reduces the amount of time available for educational activities (Baum, 2005; Pascarella & Terenzini, 2005; Stinebrickner & Stinebrickner, 2004). Therefore, employment likely reduces the quality of educational experiences for at least some portion of students.

## **Purpose of This Report**

The prevalence of working and the restrictions that working places on students' time for educational activities raises the following question for campus officials: What can institutions do to improve the educational experiences of students who work? To address this overarching question, this paper first examines the following sub-questions: What is the nature of student employment? Why do students work? And what are the consequences of working for students' educational experiences?

The paper concludes by suggesting four strategies that institutions may adopt to promote the educational success of undergraduates who work. In short, institutions should (1) determine the characteristics and consequences of employment for students at their own institution; (2) reduce students' financial need to work by controlling the costs of attendance, maximizing the availability of need-based grants, and encouraging students to borrow responsibly; (3) improve the quality of students' employment experiences by expanding on-campus employment opportunities and supporting increases in Federal Work-Study funding; and (4) adapt the delivery of education to better meet the needs of working students.

This paper addresses the research questions through a review of prior research and descriptive analyses of data from the National Postsecondary Student Aid Study (NPSAS:04). Sponsored by the U.S. Department of Education, the NPSAS is a cross-sectional survey that describes the ways students and their families pay the costs of attending college. When

appropriate weights are applied, the data are representative of undergraduates attending four-year, two-year, and less-than-two year colleges and universities nationwide. The analyses of the NPSAS:04 data describe the prevalence of employment among undergraduates, the characteristics of undergraduates who work, and the relationships between working and various educational outcomes. Although alternative explanations for the observed relationships are not controlled, the data provide insights into the phenomenon of college students who work.

### **What Is the Nature of Student Employment?**

Before determining how to respond, campus officials must first understand the characteristics of student employment. This section uses data from NPSAS:04 to describe the prevalence of student employment, the demographic characteristics of working students, and the type of employment in which students engage.

### **Prevalence of Student Employment**

The majority of undergraduates now work while enrolled. Table 1 shows that in 2003-04 about 75 percent of dependent undergraduates and 80 percent of independent undergraduates worked while attending college. Working dependent undergraduates averaged 24 hours of work per week while enrolled, while working independent undergraduates averaged 34.5 hours per week (NPSAS:04).

**Table 1. Percentage of undergraduates who worked, and average number of hours worked, by dependency status and institutional type: 2003-04**

Dependency Status	Total	Public 4-Year	Private 4-Year	Public 2-Year	Private For-Profit
Percentage Who Work While Enrolled					
Dependent	75.2	72.7	71.2	81.5	67.7
Independent	80.0	80.4	84.0	79.2	79.6
Average Number of Hours Worked per Week*					
Dependent	24.1	22.3	20.0	27.7	27.2
Independent	34.5	32.0	35.4	34.9	36.5

*Note:* Analyses are weighted by WTA00 study weight

\*Average hours worked does not include students who worked no hours.

*Source:* Analyses of NPSAS:2004 Undergraduate Students

The frequency and amount of working do not vary by the type of institution attended among independent undergraduates but do vary among dependent undergraduates. Working is relatively more common among dependent undergraduates at public two-year institutions, where 81.5 percent of 2003-04 dependent undergraduates worked while enrolled. Working is relatively less common at public four-year institutions, private four-year institutions, and private for-profit institutions, where 73 percent, 71 percent, and 68 percent, respectively, of dependent undergraduates worked while enrolled (Table 1). Working dependent undergraduates attending public two-year colleges and private for-profit colleges averaged a higher number of hours of employment per week (28 hours and 27 hours, respectively) than their counterparts attending public four-year institutions (22 hours) and private four-year institutions (20 hours, NPSAS:04).

### **Demographic Profile of Students Who Work**

Although the differences are generally not substantial, the likelihood of working while enrolled appears to vary based on students' race/ethnicity, family income, parents' educational attainment, enrollment pattern, and place of residence, but not based on students' gender. Table 2

shows a smaller percentage of Asians than of Whites, African Americans, and Hispanics worked while enrolled among both dependent undergraduates (67% versus 77%, 73%, and 74%) and independent undergraduates (73% versus 80%, 81%, and 82%). Also, when they work, Asians average fewer hours of work per week than Whites, African Americans, and Hispanics. Table 2 shows that working dependent Asian undergraduates averaged 22.1 hours of work per week, while Whites averaged 23.7, African Americans 25.1, and Hispanics 26.1. Among working independent undergraduates, the average number of hours worked per week ranged from 32.3 for Asians, to 34.4 for Whites, 35.0 for African Americans, and 34.5 for Hispanics (Table 2).

The relationship between working and socio-demographic characteristics varies based on students' financial dependency status. Working while enrolled is slightly less common among dependent undergraduates with family incomes of \$100,000 or more than among dependent undergraduates with lower family incomes. In contrast, the share of working independent undergraduates is smaller among those with the lowest incomes than among those with higher incomes. While parental educational attainment is unrelated to the likelihood of working while enrolled among independent undergraduates, working while enrolled is less common among dependent undergraduates whose parents have not completed high school (69%) or have completed advanced degrees (71%) than among undergraduates whose parents have completed a high school diploma (79%) or some college (79%).

Both enrollment status and residence are related to students' employment status, especially among dependent students. Smaller shares of both dependent and independent mostly full-time rather than mostly part-time enrolled undergraduates work while enrolled. Table 2 shows that 73 percent of dependent undergraduates enrolled mostly full time work while enrolled, compared with 82 percent of dependent undergraduates enrolled mostly part time.

**Table 2. Characteristics of undergraduates who work, by dependency status: 2003-04**

Characteristic	Percentage Who Work		Average Number of Hours Worked per Week*	
	Dependent	Independent	Dependent	Independent
<b>Total</b>	75.2	80.0	24.1	34.5
<b>Sex</b>				
Male	73.4	82.1	24.6	35.5
Female	76.9	78.8	23.6	33.8
<b>Race/Ethnicity</b>				
White	76.6	80.1	23.7	34.4
Black/African American	72.6	80.9	25.1	35.0
Hispanic/Latino	74.2	82.4	26.1	34.5
Asian/Other Pacific Islander	66.8	72.5	22.1	32.3
<b>Income</b>				
Less than \$30,000 (dependent)	74.6	—	25.4	—
\$30,000 - \$59,999 (dependent)	78.5	—	24.5	—
\$60,000 - \$99,999 (dependent)	76.5	—	23.7	—
\$100,000 or more (dependent)	69.6	—	22.4	—
Less than \$10,000 (independent)	—	71.8	—	30.0
\$10,000 - \$19,999 (independent)	—	81.3	—	32.9
\$20,000 - \$29,999 (independent)	—	82.4	—	35.6
\$30,000 - \$49,999 (independent)	—	83.4	—	36.0
\$50,000 or more (independent)	—	82.5	—	37.3
<b>Parent's Highest Education</b>				
Did not complete high school	69.7	77.7	27.1	35.2
High school	78.5	79.7	25.5	35.4
Some college	79.4	81.3	25.2	34.0
Bachelor's degree	73.5	79.7	23.4	34.0
Advanced degree	71.1	81.2	21.6	33.1
<b>Enrollment Pattern</b>				
Enrolled mostly full-time (FT)	73.1	75.2	22.2	32.0
Enrolled mostly part-time (PT)	82.2	83.6	29.9	36.1
Enrolled FT & PT equally	80.2	77.0	27.2	33.3
<b>Residence</b>				
On campus	64.8	77.4	19.3	29.7
Off campus	78.6	79.9	25.2	34.9
Living with parents	79.7	81.5	25.9	31.9

Note: Analyses weighted by WTA00

\*Average hours worked does not include students who worked no hours.

Source: Analyses of NPSAS: 2004 Undergraduate Students

Living on campus is associated with lower rates of working and, among those who work, with fewer hours worked per week. Table 2 shows that only 65 percent of dependent undergraduates who live on campus work while enrolled, compared with 79 percent of dependent undergraduates who live off campus and 80 percent of dependent undergraduates who live with their parents. Table 2 shows that the average number of hours worked per week among working dependent undergraduates is 19.3 for those who live on campus, compared with 25.2 for those who live off campus and 25.9 for those who live with their parents.

### Type of Employment

Work-study employment is substantially less common than non-work-study employment among both dependent and independent undergraduates. Table 3 shows that in 2003-04 only 7 percent of working dependent undergraduates and 2 percent of working independent undergraduates held only work-study jobs; 8 percent of working dependent undergraduates and 3 percent of working independent undergraduates held both work-study and non-work-study jobs; and 85 percent of working dependent undergraduates and 95 percent of working independent undergraduates held only non-work-study jobs.

Work-study employment is relatively more common among dependent undergraduates attending private four-year colleges and universities than among undergraduates attending other types of institutions. In 2003-04, 43 percent of working dependent undergraduates attending private four-year institutions held work-study jobs—compared with 14 percent of working dependent undergraduates attending public four-year institutions; 6 percent of working dependent students attending private for-profit institutions; and 5 percent of working dependent undergraduates attending public two-year institutions (Table 3).

**Table 3. Distribution of undergraduates, by type of job,  
institutional type, and dependency status: 2003-04**

	Regular Job Only	Work-Study/ Assistantship Only	Both
<b>Dependent Students</b>			
Total	85.2	7.0	7.8
Public 4-year	86.3	6.5	7.2
Private 4-year	57.4	21.9	20.7
Public 2-year	95.5	1.6	2.9
Private for-profit	93.9	2.4	3.7
<b>Independent Students</b>			
Total	95.0	2.1	2.8
Public 4-year	93.1	3.1	3.8
Private 4-year	92.9	2.8	4.3
Public 2-year	95.7	1.9	2.4
Private for-profit	97.9	0.9	1.3

*Note:* Analyses are weighted by WTA00 study weight

*Source:* Analyses of NPSAS: 2004 Undergraduate Students

In terms of location of employment, the majority (91%) of 2003-04 working dependent undergraduates worked off campus, with only 7 percent working on campus and 2 percent working both on campus and off campus (Table 4). Descriptive analyses of undergraduates who worked off campus while enrolled in two-year and four-year higher education institutions in Washington State during the 1997-98 academic year showed that the five most common off-campus employers were restaurants or bars; health, business, or education services; and retail establishments (Harding & Harmon, 1999). Although the most common source of employment, eating and drinking establishments averaged lower hourly wages than other off-campus employers: \$6.07/hour for eating and drinking establishments versus \$7.50/hour overall (Harding & Harmon, 1999).

**Table 4. Distribution of undergraduates who work by location of employment, institutional type, and dependency status: 2003-04**

Characteristic	On Campus	Off Campus	Both On and Off Campus
<b>Total</b>	6.8	91.1	2.1
<b>Institution Sector</b>			
Public 4-year	11.4	85.2	3.5
Private 4-year	12.7	84.2	3.1
Public 2-year	2.9	95.9	1.2
Private for-profit	3.0	96.0	1.0
<b>Dependency Status</b>			
Dependent	10.2	86.9	3.0
Independent	3.8	94.9	1.3

*Note:* Analyses are weighted by WTA00 study weight

*Source:* Analyses of NPSAS: 2004 Undergraduate Students

### Why Do Students Work?

To identify the most appropriate responses to student employment, institutional administrators and leaders must also understand the reasons that students work while enrolled. This section describes four perspectives that offer insights into why many students work: public policy, economics, sociocultural, and demographic. Together, these four perspectives suggest that paying college costs is only one of several reasons that students work.

#### Public Policy Perspective

From a public policy perspective, work may be required to pay college costs in at least two instances: (1) when a student receives some portion of financial aid in the form of Federal Work-Study; and (2) when the student and his/her family cannot, or will not, pay the cost of attendance less grants from current income, savings, and loans.

The federally mandated needs analysis formula determines eligibility for federal financial aid. Financial need is defined as the difference between the cost of attendance and the expected

family contribution (EFC). Cost of attendance includes tuition and fees, books, materials, and living expenses. EFC, or the amount a family is expected to contribute to a student's college costs, is determined by a formula specified under Part F of Title IV of the Higher Education Act of 1965 as amended (U.S. Department of Education, 2004). The EFC, calculated from data reported on the Free Application for Federal Student Aid (FAFSA), is based on such factors as family income and assets, family size, and the number of other college students in the family (U.S. Department of Education, 2004). The federally mandated needs analysis formula is used to determine student eligibility for several federal financial aid programs, including Pell grants, subsidized Stafford loans, and campus-based aid.

Along with Federal Supplemental Educational Opportunity Grants and Federal Perkins Loans, Federal Work-Study is one of three forms of federal campus-based aid, i.e., aid that is funded by the federal government but is administered through financial aid offices at individual colleges and universities. Campus financial aid administrators include Federal Work-Study in a student's financial aid package based on a consideration of the student's financial need, the types and amounts of other financial aid in the student's package, and the availability of funds at the institution for Federal Work-Study awards. The primary purpose of the Federal Work-Study program is to ensure that students have worthwhile and manageable opportunities to acquire the resources that are required to pay the costs of attendance, by engaging in paid community service and/or performing work that is related to their academic interests (Higher Education Act of 1965, Title IV, Part C, Sec. 441).

A second reason that students work, from a public policy perspective, is that working provides a mechanism for paying the costs of attendance. The Advisory Committee on Student Financial Assistance (2002) reports that in the late 1990s students from low-income families

averaged substantial unmet financial need (i.e., costs of attendance less expected family contribution and financial aid) even at public two-year institutions. Consequently, in order to pay the costs of college attendance, low-income students and their families must rely on other sources, most commonly their own employment and loans (King, 2002; St. John, in press). The Advisory Committee (2005) estimates that for dependent students with family incomes below \$50,000 who attended public four-year institutions in 2003-04 the average work and loan burden for that year exceeded \$7,300. Defined as the difference between total costs of attendance and all grant aid, the “work and loan burden” may be the best label for “the true net price of college and the [financial] barrier that must be overcome” for individuals to enroll and persist in higher education (Advisory Committee on Student Financial Assistance, 2002, p. 11).

Descriptive analyses suggest that a substantial share of students work in order to pay the costs of college attendance. Working was the second most common strategy (after applying for financial aid) that low-income undergraduates in 1995-96 reported using to reduce college expenditures, while working was the most common strategy reported by middle- and upper-income undergraduates (King, 2002). Table 5 shows that, in 2003-04, 71 percent of working dependent undergraduates and 92 percent of working independent undergraduates reported they had to work in order to pay the costs of attendance. Half (56%) of dependent undergraduates and three-fourths (77%) of independent undergraduates reported that the most important reason for working was to pay tuition, fees, and living expenses (Table 6).

**Table 5. Percentage of undergraduates who cannot afford to attend college without working, by institutional type and dependency status: 2003-04**

Characteristic	Dependent	Independent
<b>Dependent Students</b>		
Total	71.3	91.9
<b>Institutional Type</b>		
Public 4-year	69.1	88.6
Private 4-year	72.0	92.0
Public 2-year	73.5	92.8
Private for-profit	77.8	93.5
<b>Income—Dependent Students</b>		
Less than \$20,000	78.2	—
\$20,000 to \$49,999	76.6	—
\$50,000 to \$69,999	71.8	—
\$70,000 to \$99,999	68.3	—
More than \$100,000	62.0	—
<b>Income—Independent Students</b>		
Less than \$10,000	—	85.9
\$10,000-\$29,999	—	91.8
\$30,000-\$49,999	—	95.0
\$50,000 or more	—	95.1

*Note:* Analyses are weighted by WTA00 study weight

*Source:* Analyses of NPSAS: 2004 Undergraduate Students

**Table 6. Main reason for working among working undergraduates by dependency status: 2003-04**

Dependency Status	Total	Earn Money	Spending Money	Fees, or Living Expenses	Pay Tuition, Fees, or Living Expenses	Gain Job Experience	Other
Total	100.0	24.2	63.4	7.3	5.1		
Dependent	100.0	32.3	55.8	7.6	4.2		
Independent	100.0	9.2	77.4	6.7	6.7		

*Note:* Analyses are weighted by WTA00 study weight

*Source:* Analyses of NPSAS: 2004 Undergraduate Students

## **Economic Perspective**

Economic theories also inform our understanding of the reasons that students work.

Rational models of human capital investment assume that individuals decide to “invest” in higher education (i.e., enroll and persist in college) based on a comparison of the expected lifetime benefits with the expected costs (Becker, 1962, 1993; Ellwood & Kane, 2000; Paulsen, 2001). Individuals are assumed to act rationally in ways that maximize their utility, given their personal preferences, tastes, and expectations (Becker, 1962, 1993). Human capital theory assumes that individuals consider both monetary and nonmonetary benefits in their calculation of the total expected benefits of higher education (Becker, 1993). The theory predicts, and research shows, that individuals realize a number of benefits from an investment in higher education. Among the long-term benefits of higher education are increased lifetime earnings, more fulfilling work environments, better health, longer life, more informed purchases, and lower probability of unemployment. Individuals who attend college also realize such short-term consumption benefits as enjoyment of the learning experience, involvement in extracurricular activities, participation in social and cultural events, and enhancement of social status (Baum & Payea, 2004; Bowen, 1997; Leslie & Brinkman, 1988).

The costs of investing in a college education include the direct costs of attendance (e.g., tuition, fees, room, board, books, and supplies) less financial aid, the opportunity costs of foregone earnings and leisure time, and the costs of traveling between home and the institution (Becker, 1993). Foregone earnings, i.e., the opportunity costs of college attendance, are defined as the earnings that the student would realize if they were not attending college. Therefore, from an economic perspective, students may work while enrolled in college not only to pay the direct costs of attendance, but also to reduce the costs of foregone earnings. In a simulation of the rate

of return of working while enrolled, Stern and Nakata (1991) showed that unless a student is certain s/he will not graduate or will require additional time to complete their degree, working while enrolled increases the rate of return to their investment in college by reducing the costs of attendance.

## **Sociocultural Perspectives**

By emphasizing the ways in which socioeconomic and other background characteristics influence student decisions (Perna, 2006; Terenzini, Cabrera, & Bernal, 2001), sociocultural perspectives offer insights into differences across groups in the frequency and amount of working while attending college. These perspectives predict that different groups of students engage in different levels, amounts, and types of employment because of differences in such preferences and tastes as parental willingness to pay the costs of the student's college attendance, student willingness to borrow to pay the costs of attendance, and student preferences for particular lifestyles.

One type of sociocultural preference that may shape students' decisions about work is parental willingness to pay college costs. Ruling out such potential explanations as increased cost of attendance relative to family income, reduced availability of financial aid, growth in financial aid awards in the form of work, and increased earnings of college student workers compared to other workers, Stern and Nakata (1991) concluded that growth between the 1960s and the 1980s in the share of college students who work was most likely attributable to changes in preferences. More specifically, while acknowledging a lack of data or research to support this explanation, Stern and Nakata argued that growth in working could be explained by such changes as

increased student interest in financial independence and reduced parental willingness to pay students' cost of attendance.

Over the past decade students have become responsible for a relatively larger share of the costs of college attendance while parents have become responsible for a relatively smaller share of those costs (Hearn, 2001; Stringer, Cunningham, O'Brien, & Merisotis, 1998). Although many factors (e.g., increased consumer debt, inadequate savings, slow personal income growth) may contribute to parents' reduced ability to pay college costs (Perna & Li, *in press*), a reduced willingness to pay may also explain the decline in the share of costs covered by parents (Stringer, Cunningham, O'Brien, & Merisotis, 1998).

Parental willingness to pay appears to vary across racial/ethnic groups. Using national data and multinomial logit analyses, Steelman and Powell (1993) found—even after controlling for parents' education, parents' marital status, number of children, and family income—that African American, Hispanic, and Asian parents were more likely than White parents to perceive college costs to be the responsibility of parents rather than students.

Parental willingness to pay may also vary based on socioeconomic status, although observers offer conflicting views about the direction of the relationship. Based on their analyses of data describing high school seniors in the National Education Longitudinal Study and High School and Beyond, Ellwood and Kane (2000) concluded college enrollment rates may be positively related to family income at least in part because parental willingness to contribute to college costs increases with family income. On the other hand, King (2002) speculated that rates of working are as high among students from middle- and higher-income families as among students from lower-income families in part because of middle- and higher-income parents' unwillingness to pay their entire expected family contribution.

Regardless, parental ability/willingness to pay college costs is inversely related to the likelihood that an undergraduate works full time while enrolled. Nearly one-half (43%) of undergraduates whose parents did not help pay costs of tuition and fees worked full time in 2003-04, compared with 13 percent of undergraduates whose parents did help pay the costs of tuition and fees (McMillion, 2005).

A second sociocultural perspective suggests that variation in student employment behavior may be attributable to differences in willingness to borrow to pay college costs. In other words, some students may work because they are unwilling to use loans to fund educational costs. As indicated by the growing share of aid that is awarded in the form of loans, the declining share of aid that is awarded in the form of grants, and the declining value of the Pell grant (The College Board, 2005b), the nation's current system of financial aid seems to require that students and/or their families borrow to pay the costs of attendance. About one-half (44%) of the nearly \$142.7 billion in nonfamily funds used by postsecondary education students nationwide in 2004-05 was in the form of federal loans and an additional 10 percent was in the form of nonfederal loans (The College Board, 2005b). Moreover, low-income students are not exempt from the expectation to borrow (Perna, in press). Regardless of income, nearly half of full-time, full-year dependent undergraduates with family incomes below \$100,000 borrowed in 2003-04 (Berkner, Wei, He, Lew, Cominole, & Siegel, 2005).

Willingness to borrow varies based on economic, cultural, and psychological perspectives (Perna, in press). For example, Trent, Lee, and Owens-Nicholson (in press) argue that locus of control may influence willingness to borrow. Other research suggests racial/ethnic group differences in willingness to borrow. Using data from the U.S. Census Bureau and the 1999-00 National Postsecondary Student Aid Study, ECMC Group Foundation (2003) concluded that

differences in use of loans to finance costs contributed to lower college enrollment rates for Hispanics and American Indians than for Whites. African Americans, American Indians, and Hispanics were more likely than Whites to enroll in lower cost postsecondary educational institutions without borrowing, even after controlling for socioeconomic characteristics. Socioeconomic characteristics, particularly mortgage status and the householder's educational attainment, were important positive predictors of enrolling and borrowing (ECMC Group Foundation, 2003).

A third sociocultural perspective suggests that differences in student employment may be attributable to differences across groups in lifestyle choices and other preferences and expectations. For example, some upper-middle- and upper-income students may work because they want to support a particular lifestyle (e.g., own a car), not because they need to pay the costs of attendance (King, 2002). Students from low- and lower-middle-income families may also work for reasons other than paying costs of attendance, including an obligation to contribute to the financial well-being of their families (King, 2002).

## **Demographic Perspective**

A final perspective for understanding the phenomenon of working students is changing demographics. In other words, growth in the number of students who work may reflect changes in the demographics of college students generally, and an increase in enrollment of adult students more specifically. Likely reflecting an interest in updating skills in the face of changing technologies, the number of older individuals enrolling in higher education is increasing (Berker & Horn, 2003). Nearly half (43%) of all undergraduates in 1999-00 were age 24 or older (Berker

& Horn, 2003). Federal financial aid regulations categorize students who are at least 24 years old as financially independent of their parents.

Compared to dependent students, independent students are more likely to work while enrolled and work a greater number of hours. As described earlier, 80 percent of independent undergraduates worked an average of 34.5 hours per week in 2003-04, while 75 percent of dependent undergraduates worked an average of 24.1 hours per week (Table 1). Table 7 shows that, in 2003-04, 15 percent of independent undergraduates worked more than 40 hours per week compared with only 4 percent of dependent undergraduates. About half (52%) of independent undergraduates worked more than 30 hours per week while enrolled, compared with only 20 percent of dependent undergraduates.

**Table 7. Percentage distribution of undergraduates by number of hours worked per week, dependency status, and type of employment: 2003-04**

Status	Total	Hours Worked per Week					
		None	1-15	16-20	21-30	31-40	41 or more
<b>Dependent</b>	100.0	24.6	21.9	14.1	19.7	15.3	4.3
Non-work-study	100.0	—	26.5	19.8	27.9	21.5	4.4
Work-study	100.0	—	77.7	13.5	4.9	3.9	0.0
Both	100.0	—	12.9	12.8	26.1	22.9	25.4
<b>Independent</b>	100.0	20.0	8.3	7.9	11.3	37.2	15.4
Non-work-study	100.0	—	9.6	9.5	14.3	48.0	18.7
Work-study	100.0	—	48.2	29.3	9.3	13.2	0.0
Both	100.0	—	6.1	6.0	14.8	21.2	51.9

*Note:* Analyses are weighted by WTA00 study weight

*Source:* Analyses of NPSAS: 2004 Undergraduate Students

## **What are the Implications of Working for Students' Educational Experiences?**

Institutional leaders must also recognize that the effects of employment vary based on the quantity and quality of employment as well as the outcome of interest (Pascarella & Terenzini, 2005; U.S. Department of Education, 1998). This section reviews what is known from prior research about the effects of employment on the following aspects of students' educational experiences: cognitive skills and intellectual development, academic performance, community service and moral development, persistence to degree completion, time to degree, and post-college earnings.

### **Cognitive Skills and Intellectual Development**

A public policy perspective predicts that working, especially working a work-study job or other job that is related to students' academic program and/or career goals, is positively related to students' cognitive development. Nonetheless, based on their comprehensive review and synthesis of prior research, Pascarella and Terenzini (2005) concluded that the relationship between student employment and cognitive development is ambiguous. In an exploratory study, Pascarella and colleagues (1994) found among freshmen at one university that scores on tests of reading comprehension, mathematics and critical thinking were unrelated to whether students worked, to whether students worked on or off campus, or to the number of hours worked, after controlling for other variables. In a follow-up longitudinal study of freshmen attending 23 colleges and universities, Pascarella and colleagues (1998) found, after controlling for other variables, that neither location of employment (i.e., on or off campus) nor intensity of working was consistently related to measures of cognitive development at the end of students' first or second years of college. Scientific reasoning at the end of the second year was inversely related

to the number of hours worked. At the end of the third year, working up to 15 hours per week on campus or up to 20 hours per week off campus was positively related to such measures of cognitive development as reading comprehension and critical thinking, controlling for other variables, while working more than 15 hours per week on campus or more than 20 hours per week off campus was negatively related to these measures.

Few studies have tested the hypothesis that working promotes cognitive development when the employment is related to the student's major field or career goals (Pascarella & Terenzini, 2005). Based on their evaluation of the quality and range of available research, Pascarella and Terenzini concluded that employment has no effect on students' cognitive development.

## **Academic Performance**

A public policy perspective suggests that working while enrolled may enhance academic performance, especially when students are employed in Federal Work-Study programs. The U.S. Department of Education (2005) states that students who are awarded Federal Work-Study aid should perform work that is "related to the recipient's course of study," regardless of whether the student's FWS employer is on or off campus" ([www.studentaid.ed.gov](http://www.studentaid.ed.gov)). Working while enrolled may enhance the educational experiences of some portion of students (Choy & Berker, 2003), especially students who hold jobs that are related to their major field of study or career interest (Stern & Nakata, 1991). About one-fifth of 2003-04 working undergraduates believed that working had a positive effect on their grades (Table 8).

**Table 8. Distribution of undergraduates who worked by perceived effect of working on grades, institutional type, and number of hours worked per week: 2003-04**

	Total	Positive	Negative	None
<b>Institutional Type</b>				
Total	100.0	18.4	48.0	33.7
Public 4-year	100.0	18.5	49.3	32.2
Private 4-year	100.0	23.4	42.1	34.6
Public 2-year	100.0	16.9	48.3	34.7
Private for-profit	100.0	17.7	45.1	37.2
<b>Hours Worked per Week</b>				
1-15 hours	100.0	20.0	40.3	39.7
16-20 hours	100.0	20.3	43.1	39.9
21-30 hours	100.0	17.8	49.2	33.0
31-40 hours	100.0	16.7	52.4	31.0
41 or more hours	100.0	18.6	54.4	27.1

*Note:* Analyses are weighted by WTA00 study weight

*Source:* Analyses of NPSAS: 2004 Undergraduate Students

Nonetheless, most research suggests that working is unrelated to grades. Table 8 shows that about one-third of working undergraduates in 2003-04 believed that working was unrelated to their grades. Other research shows that the number of hours worked per week (regardless of whether worked on or off campus) is unrelated to academic achievement, at least when measured by performance on standardized tests (Pascarella & Terenzini, 2005) or grade point average (Ehrenberg & Sherman, 1987; Furr & Elling, 2000; Harding & Harmon, 1999; Stern & Nakata, 1991).

Working has been shown to be unrelated to academic achievement even though research consistently shows that working is negatively related to academic involvement and time spent studying (Furr & Elling, 2000; Pascarella, Bohr, Nora, Desler, & Zusman, 1994; Pascarella & Terenzini, 2005). Descriptive analyses show that as the number of hours worked per week increases so does the percentage of undergraduates who report that working limits their choice of classes, class schedule, number of classes taken, and access to the library (Choy & Berker, 2003; King & Bannon, 2002). In a descriptive study of students at one urban public university, Furr

and Elling (2000) found that, compared with students who did not work and students who worked less than 30 hours per week, students who worked 30 or more hours each week were less engaged with campus organizations. Students who did not work reported more frequent contacts, and more meaningful relationships, with faculty than students who worked (Furr & Elling, 2000). Pascarella and Terenzini (2005) speculate that together these findings suggest that, on average, working improves students' "organizational skills and work habits," thereby enabling them to use available study time more efficiently (p. 133).

### **Community Service and Moral Development**

A public policy perspective predicts that employment will be positively related to community service, at least for some proportion of students working in Federal Work-Study programs. Effective July 1, 1994, all institutions are required to use at least 7 percent of their Federal Work-Study funds to compensate students who are employed in community service jobs.

Research on the relationship between student employment and indicators of community service and/or moral development is limited in both quantity and scope. Anecdotal evidence suggests that working in a community service job may encourage students to pursue such careers as public school teaching (Cheng, 2004). Pascarella and Terenzini (2005) described two studies that showed a negative relationship between the number of hours worked per week off campus and such indicators as participation in community service during college and principled moral reasoning. This negative relationship may be attributable to the negative impact of time spent working on time available for community service and other activities that promote moral development (Pascarella & Terenzini, 2005). Regardless, additional research is required to fully

understand the implications of working for moral-ethical behavior and moral development (Pascarella & Terenzini, 2005).

### **Persistence to Degree Completion**

Tinto's (1993) model of voluntary student departure suggests that a student's decision to leave an institution is a consequence of the interaction between the individual student and the college or university as an organization. The model suggests that working a substantial number of hours, especially off campus, limits a student's ability to become academically and socially integrated into the campus, thereby weakening a student's commitment to the institution and degree completion, and consequently increasing the likelihood of leaving the institution. Working a "reasonable" number of hours on campus is expected to reduce the likelihood that a student will leave an institution before completing a degree, while working a "high" number of hours, especially when the employment is off campus, is expected to reduce the likelihood that a student will persist to degree completion.

Descriptive data are consistent with this hypothesis. Among 1995-96 beginning postsecondary students (U.S. Department of Education, 2003), observed bachelor's degree attainment rates were higher for students who worked between 1 and 15 hours per week than for other students. Table 9 shows that 82 percent of 1995-96 first-time freshmen who attended a public four-year institution and who worked between 1 and 15 hours per week had attained a bachelor's degree by 2001, compared with only 69 percent of those who did not work, 63 percent of those who worked between 16 and 20 hours per week, 51 percent of those who worked between 21 and 30 hours per week, and 29 percent of those who worked 30 or more hours per week (BPS:96/01). Similarly, 91 percent of 1995-96 first-time freshmen who attended a private

four-year institution and who worked between one and 15 hours per week had attained a bachelor's degree by 2001, compared with 84 percent of those who did not work, 77 percent of those who worked between 16 and 20 hours per week, 63 percent of those who worked 21 to 30 hours per week, and 54 percent of those who worked more than 30 hours per week.

**Table 9. Percentage distribution of 1995-96 first-time students who planned to attain a bachelor's degree according to attainment or enrollment status in 2001, by hours worked in 1998 and institution last attended in 2001**

Hours Worked Per Week While Enrolled	Attainment or Level of Enrollment 2001			
	Attained Bachelor's Degree	Attained Associate's Degree or Certificate	Never Attained, Enrolled at 4-Year	Never Attained, Not Enrolled
	Institution Last Attended by 2001: Public 4-Year			
Total	59.4	4.4	18.6	17.6
0 hours	68.7	3.1	16.9	11.4
1-15 hours	81.5	2.7	8.0	7.7
16-20 hours	62.8	5.1	20.0	12.1
21-30 hours	50.5	7.8	23.9	17.9
30 hours or more	29.2	5.2	33.3	32.2
Institution Last Attended by 2001: Private 4-Year				
Total	77.9	3.3	8.2	10.5
0 hours	84.3	4.1	4.5	7.1
1-15 hours	91.3	0.4	2.9	5.4
16-20 hours	76.8	5.3	9.2	8.7
21-30 hours	62.7	7.6	16.9	12.9
30 hours or more	53.5	4.2	25.0	17.2

*Note:* Analyses are weighted by WTC00 Longitudinal weight for 1996, 1998, 2001 respondents

*Source:* Analyses of Beginning Postsecondary Students (BPS:96/2001)

Consistent with these descriptive data, Pascarella and Terenzini (2005) concluded that the relationship between employment and retention is likely U-shaped: Retention rates are lower for students who do not work and for students who work more than 15 hours per week than for students who work between 1 and 15 hours per week. Working no more than 15 hours per week is associated with higher levels of involvement and learning, while working more than 15 or 30 hours per week is associated with lower levels of involvement with faculty and peers (Furr &

Elling, 2000; Lundberg, 2004). Research typically shows that working between 1 and 15 hours per week, especially if the employment is on campus, promotes persistence, whereas not working or working more than 15 hours per week, especially off campus, limits persistence (Beeson & Wessel, 2002; Ehrenberg & Sherman, 1987; King, 2002; Pascarella & Terenzini, 2005).

Working on campus is generally associated with higher persistence rates, regardless of whether persistence is measured as year-to-year enrollment or degree completion (Pascarella & Terenzini, 2005; St. John, 2003).

### **Time to Degree**

Students who work while enrolled generally average longer time to degree (King, 2002; Stern & Nakata, 1991), although some research suggests that the positive relationship between hours worked and time to degree exists for students who work off campus and not for students who work on campus (Ehrenberg & Sherman, 1987; Pascarella & Terenzini, 2005). Based on their review and synthesis of prior research, Pascarella and Terenzini (2005) concluded that the likelihood of shifting enrollment from full time to part time increases as the number of hours worked per week increases.

Aspects of the Federal Work-Study program, as well as the types of employment that are available to working students, suggest that students who work while enrolled may require additional time to complete their degrees. According to the U.S. Department of Education (2005), the total amount of money that students may earn through FWS programs is capped and the hourly wages that students receive through this program may be as low as the federal minimum wage (\$5.15/hour in 2005).

The financial inadequacy of work-study employment is suggested by the high shares of work-study students who hold both work-study and non-work-study jobs while they are enrolled. Among 2003-04 dependent undergraduates who held a work-study job, the share who also held a non-work-study job ranged from 49 percent at private four-year institutions, to 53 percent at public four-year institutions, to 61 percent at private for-profit institutions, and 64 percent at public two-year institutions (analyses of data in Table 3).

Students who hold only work-study jobs tend to work 15 or fewer hours per week, while students who hold both work-study and non-work-study jobs tend to work more than 40 hours per week. Table 7 shows that 78 percent of working dependent undergraduates who held only work-study jobs worked 15 or fewer hours per week, compared with just 13 percent of working dependent undergraduates who held both work-study and non-work-study jobs. No dependent undergraduates who worked only work-study jobs, but one-fourth of dependent undergraduates who held both work-study and non-work-study jobs, worked more than 40 hours per week. The pattern is similar for working independent undergraduates.

## **Post-College Employment and Earnings**

The economic theory of human capital suggests that working while enrolled in college promotes various post-college outcomes, particularly employment and earnings. Human capital theory assumes that investments in human capital (e.g., education, on-the-job training) enhance a student's "mental and physical abilities," thereby increasing his/her productivity (Becker, 1962). Increases in productivity are expected to be rewarded by higher earnings (Becker, 1993; Paulsen, 2001). Therefore, a student who works while enrolled in college may be building his/her human capital through both formal education and on-the-job training. Most of the available research

shows that students believe working while in college promotes job-related skills and that employers believe college graduates who work while attending college are more job-ready than college graduates who do not work (Pascarella & Terenzini, 2005).

Although less conclusive than research about the perceived labor market benefits, research generally indicates that students who work while enrolled in college are more likely than their nonworking peers to secure employment soon after graduating and to obtain employment that requires a bachelor's degree (Pascarella & Terenzini, 2005). Students who engage in work that is related to their major field and/or career choice typically realize the greatest success in securing employment after completing their bachelor's degree (Pascarella & Terenzini, 2005).

Nonetheless, despite the predictions of human capital models, the relationship between employment during college and post-graduation earnings is ambiguous (Pascarella & Terenzini, 2005). Little is known about the relationship between employment as a student and long-term career earnings (Pascarella & Terenzini, 2005; Stern & Nakata, 1991). Some research suggests that early career earnings are higher for those who work while attending college (e.g., Gleason, 1993; Light, 2001; Molitor & Leigh, 2005; Stern & Nakata, 1991), but that the rate of return to in-school employment varies based on the type of institution attended (Molitor & Leigh, 2005). The effect on post-college earnings of in-school work experience appears to be larger for students attending community colleges than for students attending other types of colleges and universities (Molitor & Leigh, 2005). Nonetheless, other research suggests that the positive effects of working while in college on subsequent wages are eliminated after taking into account endogeneity of working and unobserved person-specific heterogeneity (Hotz, Xu, Tienda, & Ahituv, 2002). In their econometric analyses of the returns to high school and college

employment on earnings of men using data from the 1979 National Longitudinal Study of Youth, Hotz and colleagues concluded that the returns to full-time schooling exceed the returns to employment especially for African Americans and Hispanics.

### **What Can Institutions Do to Promote the Educational Experiences of Working Students?**

The data and research presented in this paper suggest that to promote the educational experiences of students who work, institutions should consider at least four strategies: (1) determine the characteristics and consequences of employment for students at their own institution; (2) reduce the financial need to work by controlling the costs of college attendance, maximizing the availability of need-based grants for low- and lower-middle-income students, and encouraging students to borrow responsibly; (3) improve the quality of students' employment experiences by expanding on-campus employment opportunities and supporting increases in Federal Work-Study funding; and (4) adapt the delivery of education to better meet the needs of working students.

### **Determine the Characteristics and Consequences of Employment at This Institution**

The data and research summarized in this paper describe student employment and educational experiences at colleges and universities in the aggregate. To identify the most appropriate institutional responses, individual college campuses should examine the characteristics and experiences of students who work while they are enrolled on their own campus. An institutional assessment of student-employment patterns should be designed to identify the characteristics of students who work, the amounts and types of employment in which students are engaged, and the reasons that students work. The descriptive analyses in this paper

show that employment patterns vary based on various demographic characteristics, particularly financial dependency. Compared with students who are financially dependent on their parents, independent students are more likely to work, and work more hours, and are more likely to view themselves as primarily employees who study rather than students who work. The descriptive analyses also show that nationwide students work different numbers of hours in different locations for different reasons.

Institutions should also identify the extent to which students who work perceive themselves to be primarily students or employees. One limitation of much of the prior research examining the consequences of working is the failure to consider the endogeneity of the measures of student employment (Stinebrickner & Stinebrickner, 2003). In other words, students make “choices” about the extent to which they work while they are enrolled. If this endogeneity is not taken into account, the results of the analyses may be biased. For example, a negative relationship between employment and educational outcomes is often interpreted as reflecting the negative consequences of working for integration, engagement, and involvement. However, if endogeneity has not been considered, then this negative relationship may really reflect a student’s decision to be more committed to the labor market than to college performance, involvement, and persistence.

Descriptive analyses suggest that persistence and degree completion rates vary based on whether students view themselves primarily as students who work or employees who study (Hudson & Hurst, 2002). Using data from the 1995-96 Beginning Postsecondary Student Survey, Hudson and Hurst found that students who view themselves primarily as employees who study are less likely than other students to persist toward completion of an associate’s or bachelor’s degree after taking into account degree aspiration. They also observe that students who view

themselves as employees who study have other characteristics that are associated with lower rates of persistence and degree completion (e.g., full-time employment while enrolled, being a single parent, not having a standard high school diploma, and lower parental educational attainment).

Thus, institutions must identify students' perceptions and goals in order to understand the reasons for, and consequences of, working and the appropriate institutional response to such employment. Nationwide, virtually all (90%) working dependent undergraduates in 2003-04 viewed themselves primarily as students who work to meet educational expenses (Table 10). Only 10 percent of working dependent undergraduates viewed themselves primarily as employees who are enrolled in school. In contrast, the majority (56%) of working independent undergraduates in 2003-04 reported that they were employees who study, rather than students who work (Table 10).

**Table 10. Distribution of undergraduates who work by perceived role, institutional type, and dependency status: 2003-04**

Characteristic	Total	Perceived Role	
		Student Working to Meet Expenses	Employee Enrolled in School
Total	100.0	66.1	33.9
Public 4-year	100.0	81.8	18.2
Private 4-year	100.0	72.3	27.7
Public 2-year	100.0	56.5	43.5
Private for-profit	100.0	46.0	54.0
Dependent	100.0	90.0	10.0
Independent	100.0	43.9	56.1

*Note:* Analyses are weighted by WTA00 study weight

*Source:* Analyses of NPSAS: 2004 Undergraduate Students

## **Reduce the Financial Need to Work**

A public policy perspective suggests that one reason students work is because of the gap between the costs of attendance and their financial aid and other resources (i.e., their work and loan burden). An economic perspective suggests that students work to reduce the costs of foregone earnings. Sociocultural perspectives suggest that students are working because their parents are unwilling to pay college expenses and/or because students and their parents are unwilling to use loans. Supporting all three perspectives, most students report that they work to pay college-related expenses. Institutions may reduce the financial need for students to work by controlling the costs of college attendance, maximizing need-based grants for low- and lower-middle-income students, and encouraging students to borrow responsibly.

**Control the Costs of College Attendance.** By controlling the costs of attendance, institutions will reduce students' work and loan burden. Over the past decade, the costs of attending college increased dramatically. Between 1995-96 and 2005-06, tuition and fees increased in constant dollars by 54 percent at public four-year institutions, 37 percent at private four-year institutions, and 30 percent at public two-year institutions (The College Board, 2005a).

Sponsored by the Lumina Foundation for Education, the publication *Course Corrections: Experts Offer Solutions to the College Cost Crisis* includes several recommendations for institutions. These recommendations include out-sourcing functions that are not central to the institution's mission (Bushman & Dean, 2005; Coplin, 2005), developing dual enrollment programs with high schools so that students can earn bachelor's degrees in less time, granting credit for programs conducted by student services (Coplin, 2005), and using technology to redesign the delivery of courses (Twigg, 2005). By identifying effective ways to reduce college costs, institutions will likely reduce students' financial need to work.

### **Maximize Need-Based Grants for Low- and Lower-Middle-Income Students.**

Institutions may also reduce students' financial need to work by maximizing the availability of need-based grants for low- and lower-middle-income students (Baum, 2005; Perna & Li, in press; Richards, 2003). Virtually all full-time, full-year dependent undergraduates from low-, lower-middle, and middle-income families had some amount of financial need in 1999-00 (Choy & Berker, 2003). While a majority of students from upper-middle-income and upper-income families also had some amount of financial need, the challenges that limit the ability to pay unmet financial need are greater for students from low- and lower-middle-income families than for other students (Perna & Li, in press).

Some institutions are devoting substantial resources to reduce the work and loan burden facing low-income students. Over the past several years, Princeton University has gradually increased the availability of need-based grants to low- and lower-middle-income students. Beginning in fall 1998, Princeton has met 100 percent of financial need without the use of loans (i.e., through grants, scholarships, and work-study) for students with family incomes below \$40,000 and has reduced loan amounts for students with family incomes between \$40,000 and \$57,000 ("Note book," 1998). Princeton expanded this effort, effective fall 2001, by meeting 100 percent of undergraduates' financial aid through sources other than loans (Olsen & Lively, 2001). In 1998 Princeton also eliminated home equity from consideration in financial needs analysis for students with family incomes below \$90,000 ("Note book," 1998). Princeton reports that these changes caused the share of students who receive financial aid to rise from 38 percent in 1998 to 52 percent today (Princeton University, 2005).

Although Princeton is one of a very small number of institutions that has the financial resources for such generous aid packages (Brownstein, 2001), at least three public universities

offer programs that ease the work and loan burden for the lowest-income students. For example, starting with the fall 2004 entering class, the University of North Carolina's Carolina Covenant ensures that for low-income students the costs of attendance are covered by a combination of federal, state, institutional, and private grants and scholarships as well as a 10-12 hour/week work-study job. The program was originally targeted to students with family incomes below 150 percent of the poverty level and now serves students with family incomes below 200 percent of the poverty level (University of North Carolina, 2005). Similarly, the University of Maryland's Pathways program guarantees that students who are residents of the state of Maryland who have zero EFC will have the costs of attendance covered through a combination of federal, state, and institutional grants and on-campus work-study employment (University of Maryland Office of Student Financial Aid, 2005). The University of Virginia's Access UVA program has several components. First, effective fall 2004, the program meets the financial need of students with family incomes below 150 percent of the poverty level with a combination of grants as well as work-study. Effective fall 2005, the university limits the amount of need-based loans to 25 percent of the cost of attendance for an in-state student and meets any remaining financial need with grants. In addition, the university guarantees to meet 100 percent of financial need of all students through a combination of grants, loans, and work-study (University of Virginia, 2004).

The effects of these programs on students' employment decisions have not been examined. Moreover, reflecting the high costs of need-based grants, these programs serve relatively low numbers of students (e.g., 225 Carolina Covenant Scholars enrolled in fall 2004 [University of North Carolina, 2005]). Nonetheless, by meeting 100 percent of financial need and providing students with a 10-15 hour per week work-study job, these programs likely reduce

financial pressures to work excessive numbers of hours off campus and promote the most beneficial type and amount of employment.

**Encourage Students To Borrow Responsibly.** A third strategy for reducing students' financial need to work is to encourage students to borrow responsibly. For most students, some amount of borrowing is an effective mechanism for financing educational costs. Based on her descriptive analyses of data from the 1995-96 Beginning Postsecondary Student survey, King (2002) observed that the financing strategy with the highest observed persistence rates had two components: borrowing and working between 1 and 14 hours per week. Yet, King (2002) found that only 6 percent of 1995-96 beginning postsecondary students chose this financing strategy; 45 percent chose the strategy with the lowest persistence rates (no borrowing and working 15 or more hours per week).

Therefore, institutions are likely to enhance students' educational experiences by offering counseling about the range of available options for financing the costs of their education and the "costs, benefits, and consequences" of pursuing different options (King, 2002, p. 31). This type of counseling may be provided to students as part of first-year experiences and/or orientation programs (Richards, 2003; Tuttle, McKinney, & Rago, 2005).

Of course, a strategy that encourages borrowing must recognize the potential negative consequences of borrowing, especially for students who are at-risk of dropping out of college (Gladieux & Perna, 2005). About one-fifth of borrowers who first enrolled in a postsecondary educational institution in 1995-96 had dropped out by 2001. Compared with borrowers who completed a degree, borrowers who dropped out were less likely to be employed and more likely to default on their loan (Gladieux & Perna, 2005).

These patterns challenge institutions to identify the most appropriate approach to the “double-bind” for low-income students:

Borrowing can cause long-term negative financial consequences for those who fail to complete their programs. Yet avoidance of borrowing may push students to delay enrolling after high school, to enroll part-time in college, or to work full-time while in college, each of which is a known risk factor for dropping out of college. (Gladieux & Perna, 2005, pp. 11-12)

### **Improve the Quality of Students’ Employment Experiences**

Even if institutions are able to reduce students’ financial need to work, some portion of students will continue to work. Sociocultural perspectives suggest that some students will work to finance life-style choices, a perspective supported by the finding that 70 percent of dependent students with family incomes of at least \$100,000 work while enrolled (Table 2). A demographic perspective suggests that the growing number of older students will work to enhance their families’ financial well-being. Because research suggests that the greatest negative consequences in terms of persistence and time-to-degree are associated with working more than 15 hours per week off campus, administrators should identify ways to expand on-campus employment opportunities and support increases in the Federal Work-Study program.

**Identify Ways to Expand On-Campus Employment Opportunities.** As recommended by others (e.g., Tuttle et al., 2005), colleges and universities may enhance educational experiences by encouraging more students to work on campus. This paper shows that virtually all (91%) working undergraduates are now employed in off-campus positions. Thus, institutions should attempt to increase both the availability and attractiveness of on-campus employment

opportunities. Institutions must recognize that to attract students to these positions they must compete with off-campus employment opportunities.

In order to determine the best ways to expand on-campus employment, institutions must first understand why the vast majority of students are currently working off rather than on campus. One potential explanation is that off-campus employment opportunities are more plentiful than on-campus opportunities. However, anecdotal evidence suggests that this explanation is insufficient, as some institutions have difficulty filling all on-campus positions. Thus, before identifying how to expand the demand for on-campus positions, institutions must determine whether students prefer off-campus to on-campus employment because off-campus employment provides greater financial compensation, stronger links to future career goals, or some other advantage.

While offering higher wages than off-campus employers may be the simplest way to increase the attractiveness of on-campus employment opportunities, institutions may be able to successfully attract students to these positions by promoting other benefits. Among the potential nonmonetary benefits of on-campus employment relative to off-campus employment are greater convenience, congruence with academic coursework, and promotion of career goals. Institutions should also consider ways to develop employment opportunities that are related to students' academic and career interests.

**Support Increases in Federal Work-Study Programs.** To further improve the educational experiences of students who work, institutions should actively support increased federal funding for work-study employment. This report shows that 85 percent of working dependent undergraduates and 95 percent of working independent undergraduates hold only non-work-study jobs.

Despite the benefits of work-study employment, only a small fraction of the nation's financial aid resources are awarded in the form of work-study. Specifically, less than 1 percent of all aid awarded to postsecondary education students from all sources in 2004-05 was in the form of Federal Work-Study (The College Board, 2005b). In 2004-05, nearly 7 times more students utilized Stafford subsidized loans than received Federal Work-Study (5,546,000 borrowers versus 826,000 recipients, The College Board, 2005b). Between 1994-95 and 2004-05, total funding for grants increased in constant dollars by 86 percent and funding for loans increased by 130 percent, but funding for work-study increased by only 24 percent (The College Board, 2005b).

Work-study programs should be expanded not only to serve a higher percentage of students, but also to compensate participating students at a rate above the federal minimum wage. In his review of research conducted in the late 1980s and early 1990s, St. John (2003) found that aid in the form of work-study was negatively related to persistence. He concluded that the negative relationship between work-study and persistence suggests that either work-study wages are too low to enable a student to pay the costs of attendance and/or the hours worked by work-study students are too high. In 2003-04, a majority of working dependent and independent undergraduates who held work-study jobs also held non-work-study jobs, further suggesting the financial inadequacy of work-study employment (Table 3).

### **Adapt the Delivery of Educational Services to Address the Needs of Working Students**

In addition to reducing the financial need to work and expanding on-campus employment opportunities, institutions should adapt the delivery of instruction, as well as academic and support services, to address the needs of working students. The research reviewed in this paper

shows that, while their academic performance may not be affected, students who work are less academically involved, have fewer choices of classes, and have less access to the library (Choy & Berker, 2003; Furr & Elling, 2000; King & Bannon, 2002; Pascarella, Bohr, Nora, Desler, & Zusman, 1994; Pascarella & Terenzini, 2005).

Institutions should consider strategies that simultaneously address students' needs to both work and to participate in high-quality educational experiences. One approach may be to expand opportunities for students to earn experiential learning credit (Coplin, 2005). While offered as a means for reducing instructional costs, this strategy may also generate benefits for working students. Coplin provides anecdotal support for this suggestion, stating that alumni of one program support the granting of credit for experience-based learning. A second potential strategy is to employ upper-level undergraduates as teaching assistants or tutors. Future research should examine the benefits and costs of these and other changes in the delivery of educational services.

## Conclusion

For various reasons, nearly all college students, regardless of the type of institution that they attend or their socioeconomic status, now work some number of hours while they are enrolled. Working 15 or fewer hours per week typically enhances a student's educational experiences, especially if the employment is on campus and/or related to the student's field of study or career goals. However, for many students, especially those who work off campus, more than 15 hours per week, and/or in jobs that are unrelated to their academic or career interests, working negatively impacts postsecondary educational experiences and opportunities. Given the prevalence of working and the range of potential positive and negative consequences, institutions must examine student-employment patterns on their individual campuses, reduce the financial

need to work, improve the quality of students' employment experiences, and adapt the delivery of educational services to better serve working students.

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