

Balancing Work and Learning

IMPLICATIONS FOR LOW-INCOME STUDENTS



ANTHONY P. CARNEVALE
NICOLE SMITH
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Center
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McCourt School of Public Policy

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IMPLICATIONS FOR LOW-INCOME STUDENTS

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Introduction

Go to school. Be financially responsible. Work hard. These are the tenets we teach our children about the responsible pursuit of the American Dream.

Yet for some of the hardest-working students from low-income families, following these tenets has not led to the success they have been promised. These low-income working learners are going to school more and working more hours, yet struggling to make it. They have been failed by

- an education system that perpetuates intergenerational inequality;¹
- a labor market that offers them fewer high-quality job opportunities with career-building work experience while they are in school;²
- skyrocketing college prices that make it practically impossible to work one's way through college anymore;³
- poor information about education and career pathways and their outcomes;⁴ and
- a lack of sufficient support mechanisms and a financial and social safety net.⁵

This is a shameful state of affairs. Policymakers, educators, and business leaders can and must do more to help these motivated and hardworking low-income working learners gain the valuable skills and quality experience they need to reach their potential.

¹ Carnevale and Strohl, *Separate and Unequal*, 2013.

² Carnevale et al., *Recovery*, 2013; Carnevale et al., *Failure to Launch*, 2013.

³ Georgetown University Center on Education and the Workforce analysis of data from US Census Bureau and Bureau of Labor Statistics, *Current Population Survey*, 1970, 2016.

⁴ Carnevale et al., *Career Pathways*, 2017.

⁵ Carnevale and Smith, "Learning While Earning," 2016.

Over the past half century, the relationship between working and learning has changed in profound ways that have made it more difficult for students, especially students from low-income backgrounds, to attain the right mix of work experience and schooling necessary to qualify for entry-level jobs with a future.

The structural shift from an industrial to a post-industrial economy is at the root of this new set of problems. As a result of structural changes in the economy, the entry-level standard for most jobs has increased from high school to postsecondary education in combination with high-quality work experience. In the 1970s, three out of four jobs required a high school education or less; today, two out of three jobs require at least some postsecondary education or training.⁶

Over the past half century, the relationship between working and learning has changed in profound ways.

Thus, more education is required to launch a career. In the old industrial economy, high school graduates and dropouts developed specific technical skills and general skills through formal and informal learning on the job after entering the labor market. In the modern economy, only about 20 percent of high school males, and virtually no females, can still get their specific and general skills with a high school diploma and on-the-job training. In the 21st century, the majority of entry-level jobs require a rich mix of formal postsecondary education along with high-quality work experience, preferably matched to an individual's career pathway or postsecondary field of study.⁷

In addition, high-quality work experience is harder to come by because the youth labor market collapsed, denying opportunities for young people to get sufficient learning and earning on the job. In the 1970s, more than half of teenagers gained some work experience; today, only a quarter have held a job.⁸ Technological innovations that automated work tasks previously performed by low-skill workers led to a massive decline in jobs for teenagers during the 1980s and 1990s.⁹ This trend became especially acute during the 2000s, when two recessions meant that experienced workers were a dime a dozen. The collapse of the youth labor market limited youth opportunities to work for money as well as the quality of learning possible in the work experiences that remained available to students.

The collapse in higher-quality occupations in the youth labor market has had several interrelated effects. It has closed off youth earnings sufficient to afford college, thereby contributing to the growing **youth education gap**.¹⁰ It has also closed off access to high-quality applied learning on the job necessary for career exploration and the development of general employability skills. Moreover, there is a growing **youth work experience gap** because as the opportunity to learn general work skills declines among youth, the demand for both specific and general work skills at entry level in sustainable careers is rising.¹¹

⁶ Carnevale et al., *Recovery*, 2013.

⁷ Carnevale et al., *Failure to Launch*, 2013.

⁸ Morisi, "Teen Labor Force Participation before and after the Great Recession and Beyond," 2017.

⁹ Carnevale and Rose, *The Economy Goes to College*, 2015.

¹⁰ Sum et al., *Vanishing Work among US Teens, 2000–10*, 2010.

¹¹ Sum et al., *The Plummeting Labor Market Fortunes of Teens and Young Adults*, 2014.

These changes have put more economic pressure on students from low-income families, who are less likely to attain a postsecondary credential or get access to high-quality, well-paid work experience on the job. As a result, earnings inequality has increased immensely since 1980—60 to 70 percent of the increase is due to the growing difference between the earnings of high school and college graduates.¹²

Many young people have realized that additional schooling is more valuable than work as an investment in a future career. As a result, youth from affluent families who can afford not to work have begun investing more time in advanced classes during the school year and educational summer programs, as well as other developmental learning experiences.

Many young people have realized that additional schooling is more valuable than work as an investment in a future career.

The current structure of youth employment and work experience operates differently for disadvantaged students compared to those who are better off:¹³

- ▶ When they choose to work, higher-income students have access to the best jobs and work experience, including internships: 14 percent work in a lucrative career field like science, technology, engineering, and mathematics (STEM); business; or healthcare, while only 6 percent of low-income students work in these fields.¹⁴
- ▶ Low-income students are more likely to work in food service, sales, and administrative support fields than higher-income students. Work experience in these jobs does provide basic employability skills like conscientiousness and teamwork but does not provide the deeper technical and general skills that foreshadow good entry-level career jobs.

Students go to work to earn money to support themselves and pay for college but also to gain valuable experience. Advantaged youth not only have access to the best schooling, they also have access to the best work-based learning experiences. Students from higher-income family backgrounds are far more likely to work in a job related to their major or field of study than students from low-income families. Interning or working in a job that aligns with their field of study improves both academic and career performances for these higher-income young people.

¹² Goldin and Katz, "The Future of Inequality," 2009.

¹³ For the purposes of this report, we have defined low-income working learners as those with family incomes that fall below 200 percent of the federal poverty line, and higher-income working learners as those with family incomes at or above 200 percent of the poverty line. For data from *National Postsecondary Student Aid Study (NPSAS), 2012; Education Longitudinal Study of 2002 (ELS:2002), 2002; and Beginning Postsecondary Students Longitudinal Study, 2012/2014 and 2004/2009*, parental income of less than \$35,000 is used to delineate low-income working learners.

¹⁴ Georgetown University Center on Education and the Workforce analysis of data from US Department of Education, National Center for Education Statistics, *High School Longitudinal Study of 2009*, 2009.

The need for formal postsecondary education and training as well as high-quality work experience has made the transition from youth dependency to independent adulthood more difficult for all youth. As a result, the age at which young workers actually begin to earn the average wage for all workers has increased from 26 in 1980 to 34 in 2017.¹⁵

Low-income working learners are substantively different from their higher-income counterparts:¹⁶

- ▶ Low-income working learners are disproportionately Black and Latino,¹⁷ women, first-generation college-goers, and new citizens and residents of the United States for whom English may not be the primary language spoken in the home.
- ▶ Low-income high school students are less likely to attend college than higher-income students: 69 percent of low-income recent high school completers were enrolled in college in 2015, compared with 83 percent of higher-income students.¹⁸
- ▶ Low-income students are more likely to enroll in certificate programs and to attend either two-year public or for-profit colleges compared to higher-income students, who are more likely to enroll in bachelor's degree programs and attend selective four-year colleges and universities. And the bachelor's degree remains the gold standard for long-term career and personal development.
- ▶ Low-income working learners are more likely to work full time while in college and are more vulnerable to experiencing declining grades when the average number of hours they work approaches or exceeds 40 hours per week.
- ▶ Low-income students are less likely to have access to financial safety nets, such as checking or savings accounts, and are more likely to choose credit cards to pay their tuition and fees; higher-income students often have access to these financial tools and are more likely to rely on student loans to pay tuition and fees.
- ▶ Low-income students are more likely to be enrolled in more narrowly focused fields of study at the sub-baccalaureate level, where they are less likely to gain the long-term adaptability that comes with the mix of general and specific education characteristic of the two-year or four-year degree.
- ▶ Low-income working learners are less likely to earn a credential overall, even if they come from the upper end of the academic performance distribution.

¹⁵ Georgetown University Center on Education and the Workforce analysis of data from US Census Bureau and Bureau of Labor Statistics, *Current Population Survey*, 1980, 2017.

¹⁶ Carnevale and Smith, "Learning While Earning", 2016; Carnevale et al., *Learning While Earning*, 2015. See the Appendix for additional analysis and sources supporting these points.

¹⁷ In this report, we use the term Black to refer to people who identify as Black or African American and the term Latino to refer to people who identify as Hispanic or Latino. We use single terms for different racial/ethnic groups—White, Black, Latino, and Asian—to alleviate ambiguity and enhance clarity. In charts and tables, we use White, Black/African American, Hispanic/Latino, and Asian.

¹⁸ National Center for Education Statistics, *Digest of Education Statistics*, 2015.

Given the increased value of going to college, today's advantaged high school students have rationally decided to pursue alternatives to work that make them more attractive college applicants, such as extracurricular activities,¹⁹ volunteer work, and summer school.²⁰ Nearly 80 percent of higher-income high school students participate in extracurricular activities, compared to less than 60 percent of low-income students.²¹ Since the 1980s, the share of teenagers enrolled in summer school has grown from 58 percent to 75 percent.²² So, while higher-income students have access to the best jobs, they often choose to focus on their studies.

School has more long-term value than work when one is young, but the need for students to gain high-quality work experience before they move into career jobs has increased dramatically. Moving from the loading dock to a highly skilled technical job or a managerial position used to be quite possible when most good jobs required a high school diploma or less in the 1960s and early '70s.²³

Work experience should relate to the student's field of study and include *reflective learning on the job*.

At the same time, work experience is harder to get due to the collapse since the 1980s in the number of full-time and part-time jobs that only require workers with a high school education or less.²⁴ In addition, the gap between the skills students attain in their early work experiences and the entry-level skills they need on the first rung in the career ladder has grown substantially. Moreover, the least advantaged students have less and less access to both youth jobs and high-quality work experiences.²⁵

To be valuable and propel workers up the career ladder, work experience should relate to the student's field of study and include *reflective learning on the job*: structured space for students to reflect on their work experience and how it connects to what they are learning in the classroom. Reflective learning on the job, the work-based equivalent of metacognition, is essential because it empowers working learners to think intentionally about their future career trajectory and development, identify potentially relevant skills to develop, and develop a lifelong learning disposition.

¹⁹ Snellman et al., "The Engagement Gap," 2015.

²⁰ Spencer, "Taking Summer School to Get Ahead, Not Catch Up," 2016.

²¹ Snellman et al., "The Engagement Gap," 2015.

²² Morisi, "Teen Labor Force Participation before and after the Great Recession and Beyond," 2017.

²³ Entry-level skill requirements have increased dramatically in the transition from an industrial to a post-industrial services economy. The reasons are complex but generally tied to increasing performance requirements at entry level on the job due to (1) changing competitive requirements in all industries; (2) the introduction of flexible computer-based technologies with a strong bias in favor of upskilling, which economists call "skill biased technology change"; (3) the shift toward organizational networks, which economists call "skill biased organizational change"; and (4) the general shift to service industries and higher levels of human interactions across occupations in all industries. For a historical review of all these changes, see Carnevale and Rose, *The Economy Goes to College*, 2015.

²⁴ Carnevale et al., *Recovery*, 2013.

²⁵ Sum et al., *The Plummeting Labor Market Fortunes of Teens and Young Adults*, 2014.



WORKING LEARNERS—

The New Normal

College students are working while enrolled regardless of their income status.

A common image of a working college student is a young adult in his or her late teens or early 20s employed at a part-time job to cover incidental expenses, or at an internship preparing for a future career. But a true portrait of today's "working learners" depicts a far more varied population that increasingly includes students who work full time while going to school, as well as those who work part time, but are logging more than 15 hours each week. Older students also make up a larger part of the picture: about a third of working learners are over the age of 30, many of them juggling additional responsibilities such as raising children or caring for other family members.²⁶ And a little under half of today's working learners are low-income students for whom a job is a not an option but an economic necessity.²⁷

You can't work your way through college anymore.

While close to 70 percent of all college students work, they don't make enough to be able to afford college, both because their wages are lower in real terms than those of previous generations and because the cost of college has skyrocketed. If we take the average wages of a man with a high school education in 1970 and fast-forward to today, he should be earning \$45,000 on average if wages had kept pace with inflation. However, the average male high school graduate today earns about \$39,000 per year, suggesting a loss in wages in real terms for those with jobs requiring only a high school education.²⁸ For women, those wages moved from \$21,000 to \$31,000 in real terms. So with high school jobs, women are better off than they used to be, but still earn \$8,000 less than men with high school diplomas today.²⁹

²⁶ Carnevale et al., *Learning While Earning*, 2015.

²⁷ Carnevale and Smith, "Learning While Earning," 2016.

²⁸ Georgetown University Center on Education and the Workforce analysis of data from US Census Bureau and Bureau of Labor Statistics, *Current Population Survey*, 1970, 2016.

²⁹ Ibid.

In 2015, the average annual earnings of an enrolled undergraduate working a 29-hour workweek were \$16,000. Income levels this meager are simply not enough to pay tuition and fees at most colleges, let alone cover housing, food, transportation, and other living expenses.

Across these varied economic and personal circumstances, students and their families may wonder what impact working while in college has. Is working usually beneficial, or does it sometimes pose more harm than good? Determining the answer to this question can be tricky because students' socioeconomic status can play a significant role in predicting how working while learning might affect them. There are material differences in the experiences of low-income and higher-income students who work, including the reasons students work, how much they work, the kinds of jobs they have, how they pay for school, and their resulting education and career outcomes.

For higher-income students, working is largely a beneficial experience.

Working less than 15 hours a week typically benefits students.

Among students working less than 15 hours per week, 61 percent maintained a B average or higher. But many students who work more than that have worse grades and are less likely to complete their college program. On average, nearly half (47%) of students working 15 or more hours a week had a grade average of C or lower.³⁰

For higher-income students, working is largely a beneficial experience. Among other benefits, it can improve their work ethic and aid in their development of soft skills such as interpersonal, organizational, or time management skills. It can help students build social capital as they form networks of professional mentors and other contacts who may assist them later in their careers. All of these components can enhance a student's ability to secure a good job after graduation.

³⁰ Georgetown University Center on Education and the Workforce analysis of data from US Department of Education, National Center for Education Statistics, *National Postsecondary Student Aid Study (NPSAS)*, 2012.

However, for low-income adults, the outlook for working is more mixed, as they face greater opportunity costs compared to higher-income working learners. Low-income working learners are less likely to complete a degree or credential. For example, only 22 percent of low-income working learners complete a bachelor's degree within six years, compared to 37 percent of higher-income working learners.³¹ For low-income students, employment can pose a variety of problems, from the negative impact that working too many hours has on their grades to the type of jobs they hold, which more frequently lack a direct connection to their desired career field and thus are less likely to yield the relevant professional experience or contacts.³² Working too many hours—above the 15-hour threshold per week—can also lead to a higher probability of non-completion and dropping out for low-income students. If we add that to student loan debt incurred from trying and failing to complete a credential, some of these students were possibly worse off for having tried. The net result is that students who most need the income and high-quality work experiences often wind up with the least access to both.

Working too many hours—above the 15-hour threshold per week—can lead to a higher probability of non-completion and dropping out for low-income students.

But having a job is far less of a choice for low-income working learners: they work not just for extra spending money or as a résumé-building experience, but because they must stay afloat financially. And many older low-income students who are already working return to school to acquire new skills necessary to keep or advance in their existing jobs, or move into new ones.

Working in a field related to their college program provides students with relevant work experience they can leverage in the job market.

Internships are increasingly the gateway for students to gain firm-specific skills while enrolled, as well as demonstrate competencies and build relationships with potential employers before entering the labor market. Many internships are increasingly indistinguishable from jobs as students work longer hours and are paid decent wages.

³¹ Georgetown University Center on Education and the Workforce analysis of data from US Department of Education, National Center for Education Statistics, *Beginning Postsecondary Students Longitudinal Study*, 2004/2009.

³² Carnevale et al., *Learning While Earning*, 2015.



SIMILARITIES AND DIFFERENCES BETWEEN

Low-Income and Higher-Income Working Learners

About 14 million students are working learners, defined as individuals both active in the labor market and formally enrolled at postsecondary institutions.

Collectively, these 14 million working learners are part of the nation's workforce of 155 million.³³ They include students who are financially dependent on their parents or other adults, independent students who support themselves, and independent students who support themselves as well as family members. They are first-generation college students who are working as well as adult students who may not have sat in a classroom for many years.

A significant proportion of today's working learners, about 6 million of the 14 million working learners (43%), are low-income students.³⁴ In this group of low-income working learners, 58 percent (3.5 million) are women, compared to 54 percent who are women among higher-income working learners.³⁵

Blacks and Latinos are also more represented among low-income working learners, with these groups accounting for 18 percent and 25 percent of low-income working learners, respectively. By comparison, 73 percent of higher-income working learners are White (Table 1).

³³ Carnevale et al., *Learning While Earning*, 2015.

³⁴ Carnevale and Smith, "Learning While Earning," 2016.

³⁵ Georgetown University Center on Education and the Workforce analysis of data from US Department of Education, National Center for Education Statistics, *National Postsecondary Student Aid Study (NPSAS)*, 2012 and US Census Bureau, *American Community Survey*, 2012–2015 (pooled data).

Table 1. Low-income working learners are more likely to be mature, female, and Black or Latino compared to higher-income working learners.

TOTAL WORKERS	155 million		
TOTAL COLLEGE STUDENTS	20 million		
	Low income	Higher income	All
WORKING LEARNERS	6 million (100%)	8 million (100%)	14 million (100%)
SEX			
Male	2.5 million (42%)	3.7 million (46%)	6.2 million (44%)
Female	3.5 million (58%)	4.3 million (54%)	7.8 million (56%)
RACE/ETHNICITY			
White	2.7 million (45%)	5.8 million (73%)	8.5 million (61%)
Black/African American	1.1 million (18%)	560,000 (7%)	1.7 million (12%)
Hispanic/Latino	1.5 million (25%)	1 million (13%)	2.5 million (18%)
Asian	420,000 (7%)	320,000 (4%)	740,000 (5%)
Other	240,000 (4%)	320,000 (4%)	560,000 (4%)
AGE			
Mature (30–54)	2.2 million (37%)	2.5 million (31%)	4.7 million (34%)
Young (16–29)	3.7 million (62%)	5.6 million (70%)	9.3 million (66%)
DEPENDENTS			
Have children	1.2 million (20%)	2.1 million (26%)	3.3 million (24%)

Source: Carnevale and Smith, “Learning While Earning,” 2016; Georgetown University Center on Education and the Workforce analysis of data from US Census Bureau, *American Community Survey*, 2012–2015 (pooled data); Carnevale et al., *Learning While Earning*, 2015; and US Department of Education, National Center for Education Statistics, *National Postsecondary Student Aid Study (NPSAS)*, 2012.

Note: The columns may not add up to 100 percent due to rounding.

Though two-thirds of working learners are young adults (between the ages of 16 and 29), a growing number are middle-aged adults (between the ages of 30 and 54),³⁶ whom we refer to in this report as “mature working learners.”³⁷ The approximately 4.7 million mature working learners are also slightly more likely to be low-income: 47 percent of them, or just under half, are low-income students. By comparison, an estimated 40 percent of younger working learners are low income.³⁸

Among all working learners, 24 percent are raising children.³⁹ Roughly 4.5 million college students have dependent children themselves. Of these, 3.3 million are working learners. Of those working learner parents, 65 percent (2.1 million) have higher incomes and 35 percent (1.2 million) are low income.⁴⁰ A much higher percentage of mature working learners have dependents (60%) and most are married (61%).⁴¹

Low-income working learners are more likely to work longer hours, which may affect their grades.

While nearly 70 percent of college students work, the share of students working full time has declined in recent decades. In the late 1980s, about 40 percent of students worked full time, compared to about 26 percent in 2012.⁴² Students may be calculating that working full time while going to college is no longer worth the burden it places on their schedules and any other stresses it imposes, especially if their earnings are making less of a dent relative to rising college costs. Thus, they are opting to rely more on student loans to finance their education.

A student working 15 to 30 hours per week during the academic year is regarded as the new normal today.

Nonetheless, the majority of students do work a significant number of hours. A student working 15 to 30 hours per week during the academic year is regarded as the new normal today. This holds true across the many different types of postsecondary institutions, including public and nonprofit universities, community colleges, for-profit colleges, and others. And many students work even more hours. Among low-income working learners, 26 percent work full time (more than 35 hours), and among higher-income working learners, 22 percent work full time (Figure 1). Higher-income students have more of an option to work part time while enrolled because they are not necessarily burdened with working for survival and provision of basic needs.

³⁶ The report defines prime-age workers as 25 to 54 years old. Less than 3 percent of enrolled college students are over 55.

³⁷ Carnevale et al., *Learning While Earning*, 2015.

³⁸ Carnevale et al., *Learning While Earning*, 2015; Carnevale and Smith, “Learning While Earning,” 2016.

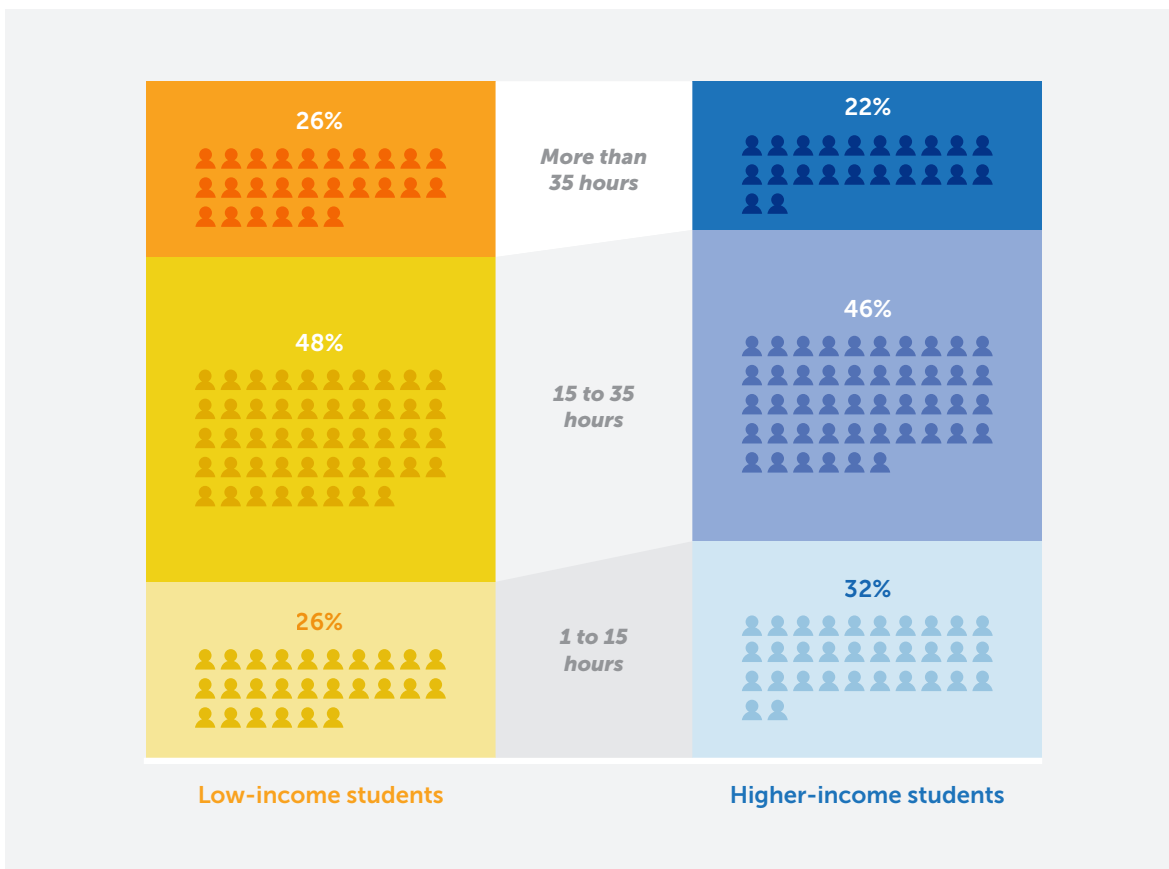
³⁹ Carnevale et al., *Learning While Earning*, 2015.

⁴⁰ Georgetown University Center on Education and the Workforce analysis of data from US Census Bureau, *American Community Survey, 2012–2015* (pooled data).

⁴¹ Carnevale et al., *Learning While Earning*, 2015.

⁴² Ibid.

Figure 1. Low-income working learners are slightly more likely to work full time than their higher-income colleagues.

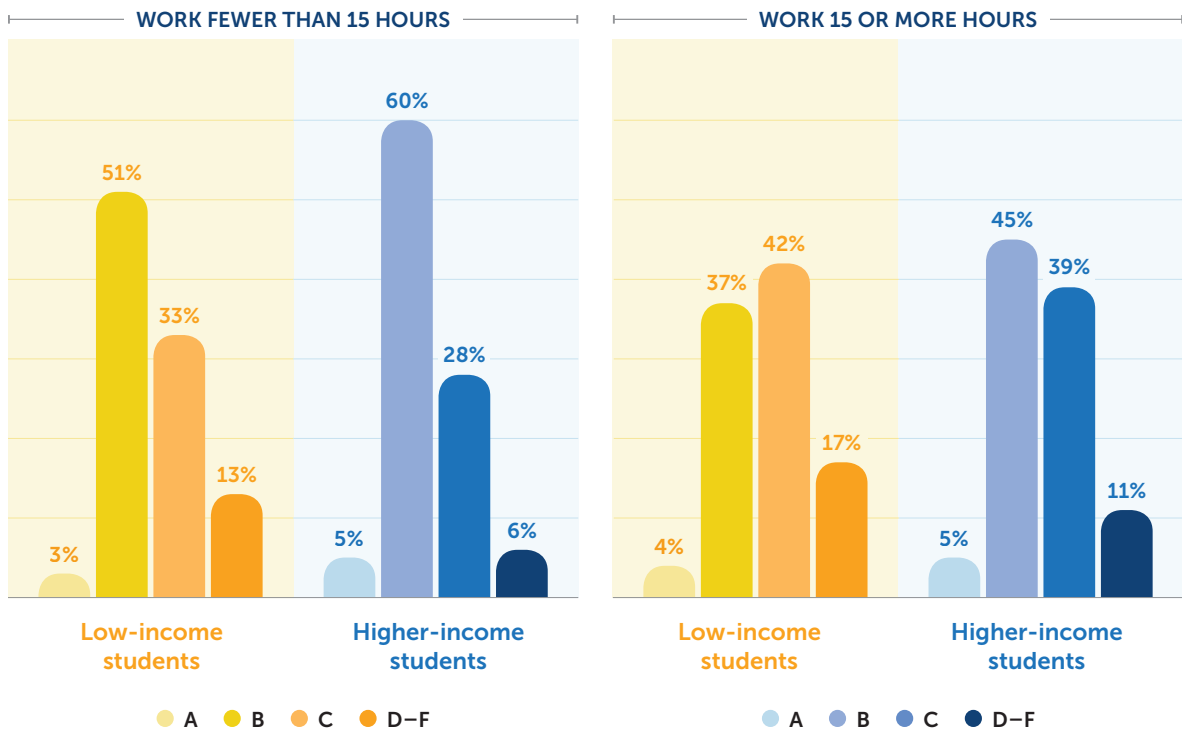


Source: Georgetown University Center on Education and the Workforce analysis of data from US Department of Education, National Center for Education Statistics, *National Postsecondary Student Aid Study (NPSAS)*, 2012.

Students who work 15 or more hours per week may find it more difficult to maintain good grades than students who work fewer hours. The more hours students work, the less time they have to devote to assignments and studying for exams, and thus their grades tend to suffer, with 15 to 20 hours per week the apparent threshold for when employment starts to have a negative impact.⁴³ Among low-income working learners who work 15 or more hours a week, 59 percent have a C average or lower, whereas among higher-income working learners who work fewer than 15 hours a week, 65 percent have a B average or higher (Figure 2).

⁴³ Carnevale and Smith, "Learning While Earning," 2016.

Figure 2. Among low-income working learners who work 15 or more hours per week, 59 percent average a C or lower in their college classes.



Source: Georgetown University Center on Education and the Workforce analysis of data from US Department of Education, National Center for Education Statistics, *National Postsecondary Student Aid Study (NPSAS)*, 2012.

Low-income working learners make different decisions concerning college choice, major choice, college financing, and hours worked than their higher-income counterparts.

Low-income working learners face a distinct set of challenges. Their decisions about the types of colleges to attend, the kind of majors and degrees to pursue, how many hours to work, and the methods they use to finance their education are correlated closely with socioeconomic factors such as household income and their parents’ level of education.

From the outset of their studies, the economic status of working learners influences both their academic and career outcomes. Compared to their higher-income peers, low-income working learners are more likely to attend under-resourced institutions (including community colleges, for-profit colleges, and other open-access institutions), as evidenced by data tracking what types of schools Pell Grant recipients attend and an analysis of the *National Postsecondary Student Aid Study*.⁴⁴ Low-income students may view associate's degrees and certificate programs as financially optimal pathways because they allow students to earn a credential in a shorter period of time,⁴⁵ and may likewise regard the more technical courses of study offered as more directly relevant to their career goals.

Students enrolled in associate's degree programs are more likely to work full time than students enrolled in bachelor's degree programs.

These shorter programs may appeal in particular to mature working learners, who may perceive them as especially flexible about accommodating work schedules and other time constraints, such as the requirements of caring for dependents or other family responsibilities.⁴⁶ Low-income mature working learners with incomes between 101 to 200 percent of the poverty level are more likely to enroll in associate's degree programs, while mature working learners with even lower incomes (at or below the poverty level) are more likely to enroll in certificate programs.⁴⁷

Generally speaking, students enrolled in bachelor's degree programs are more likely to work fewer hours per week than students enrolled in other programs (Figure 3). Among students working the fewest number of hours per week (1 to 15 hours), 75 percent are enrolled in bachelor's degree programs, 20 percent in associate's degree programs, and 3 percent in certificate programs.⁴⁸ As the hours worked per week increase, the proportion of students enrolled in a bachelor's degree program decreases, while the share enrolled in associate's degree or certificate programs increases. Among students working full time (40 hours a week or more), 39 percent are enrolled in bachelor's degree programs, 50 percent in associate's degree programs, and 7 percent in certificate programs.⁴⁹

⁴⁴ Carnevale and Smith, "Learning While Earning," 2016.

⁴⁵ Ibid.

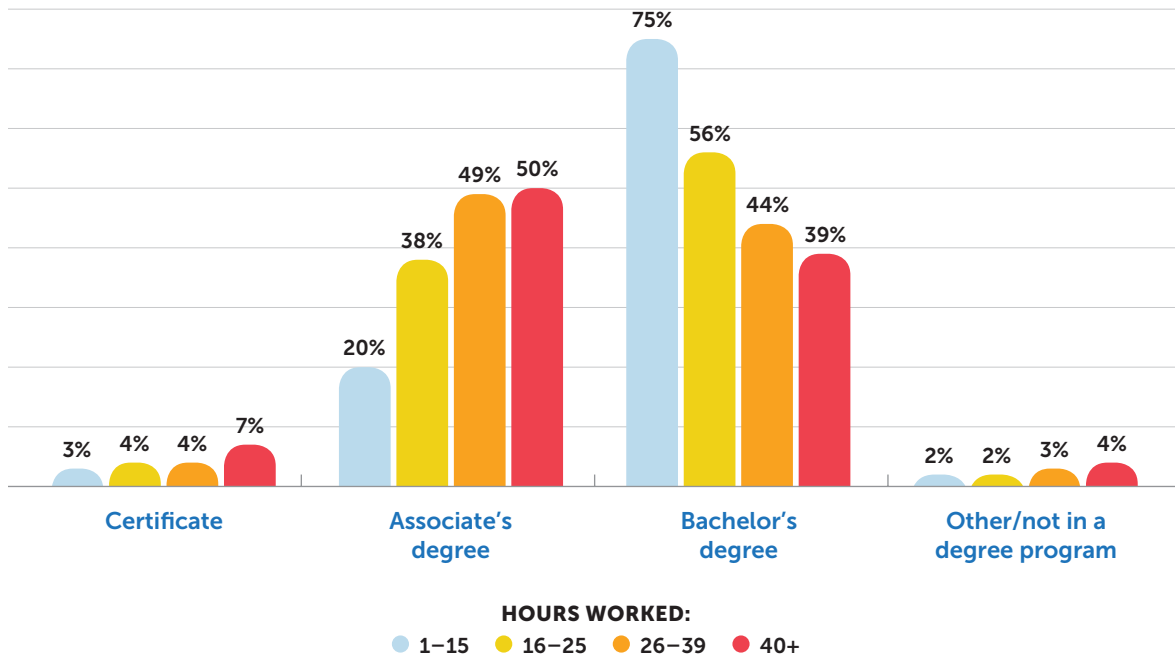
⁴⁶ Carnevale and Smith, "Learning While Earning," 2016; Carnevale et al., *Learning While Earning*, 2015.

⁴⁷ Carnevale and Smith, "Learning While Earning," 2016.

⁴⁸ Ibid.

⁴⁹ Ibid.

Figure 3. Students who work more hours are less likely to be enrolled in bachelor's degree programs.



Source: Carnevale and Smith, "Learning While Earning," 2016.

Higher-income working learners have better outcomes in college and immediately after graduating.

Higher-income working learners are more likely to attend more selective institutions and to complete their credentials. In fact, data linking tax returns to college attendance show that close to 25 percent of students from higher-income families attend an elite college or university.⁵⁰ By comparison, less than 1 percent of students from the poorest families attend an elite college or university. **An important reason that students from low-income families are not attending more selective colleges and universities is the cost of attending those institutions, not necessarily any deficits in ability as measured by test scores.** Research shows that income trumps ability in determining the selectivity of institution attended. There are many highly qualified low-income students who do not attend more selective colleges.⁵¹

⁵⁰ Chetty et al., *Mobility Report Cards: The Role of Colleges in Intergenerational Mobility*, 2017.

⁵¹ Hoxby and Avery, "The Missing 'One-Offs,'" 2012.

Furthermore, high-performing low-income students who attend more selective colleges and universities have almost double the completion rates of those attending less selective schools.⁵² In fact, highly qualified low-income students may experience lower completion rates, lower levels of attainment, and lower lifetime earnings simply because their family incomes limit the types of colleges they are able to attend.⁵³ Higher-income students are also more likely to complete their credentials and bachelor's degrees. Half of all people from higher-income families have a bachelor's degree by age 25, while only 10 percent of people from low-income families do.⁵⁴

As with the types of institutions they decide to attend, the incomes of working learners have a discernible impact on the kinds of degrees they pursue. Higher-income students are more likely to enroll in bachelor's degree programs than in associate's degree programs or shorter-term credentials that take two years or less to earn. Among students who work full time, higher-income students with family incomes at or above 200 percent of the poverty level are more likely to enroll in bachelor's degree programs. This holds true when disaggregating the data by race/ethnicity and gender. Among White, Black, and Latino students working full time, the higher-income students within each racial group were more likely to be enrolled in bachelor's degree programs than low-income students in the same racial/ethnic group.⁵⁵

When it comes to work and school, higher-income students have more of an option to work part time while enrolled because they are not necessarily burdened with working for the provision of basic needs.

When it comes to work and school, higher-income students have more of an option to work part time while enrolled because they are not necessarily burdened with working for the provision of basic needs.

In contrast with low-income students, for higher-income students, working while learning is largely a beneficial experience in terms of the types of institutions they attend and their academic performance, and is more likely to benefit their future employment and future earnings. This is especially true for those working 15 to 20 hours a week or less.

⁵² Carnevale and Strohl, "How Increasing College Access Is Increasing Inequality, and What to Do about It," 2010.

⁵³ Hoxby and Avery, "The Missing 'One-Offs,'" 2012.

⁵⁴ Bailey and Dynarski, "Inequality in Postsecondary Education," 2011.

⁵⁵ Carnevale and Smith, "Learning While Earning," 2016.

Many students cite pressure to have work experience as a deciding factor in why they worked.⁵⁶ They are aware that tight labor markets are increasing the entry-level requirements to land a good job straight out of college. While higher-income and low-income students worked a similar number of hours, irrespective of income status,⁵⁷ the true dividing line between higher- and low-income students may be more in the characteristics of their work than the amount of work that they do. Higher-income students are more likely to have jobs directly related to their field of study or career goals, working at internships and apprenticeships to gain firm-specific skills that put them at a relative advantage when they seek jobs as graduating seniors.⁵⁸

There are about 2 million interns in the US labor force, representing 1.3 percent of the approximately 155 million workers in the labor force, and about half of them are estimated to be currently enrolled college students.⁵⁹ Internship experiences can build clearer, more tangible connections for students between the skills and concepts they are learning in college and real-world experiences on the job that build on these lessons, such as for nursing students who, instead of working in the university cafeteria, obtain a nursing internship at a local hospital. Such opportunities can enable students who are learning about new research or techniques in the classroom to apply their learning in a hospital setting, working with actual patients and medical equipment under the supervision of an experienced nurse who may also serve as a mentor or coach. Internships and apprenticeships can also provide students with a trial opportunity to dip their toes into a profession they are interested in, so they can determine if they actually like it before committing to graduate school or a seeking a permanent position in the field.

Higher-income students are more likely to have jobs directly related to their field of study or career goals.

In a tight labor market, new entrants into the workplace are expected to hit the ground running, having already established some initial qualifications, credentials, and competencies. Prospective employers view students who acquire industry-specific and firm-specific skills through internship programs as valuable assets, which gives these students an edge when they enter the workforce after graduation. By contrast, students who lack such experiences can wind up relatively disadvantaged when they seek their first jobs.

⁵⁶ Carnevale et al., *Learning While Earning*, 2015.

⁵⁷ Georgetown University Center on Education and the Workforce analysis of data from US Department of Education, National Center for Education Statistics, *National Postsecondary Student Aid Study (NPSAS)*, 2012.

⁵⁸ Georgetown University Center on Education and the Workforce analysis of qualitative research and interviews with working learners associated with the ACT Foundation Working Learner Advisory Council.

⁵⁹ Carnevale et al., *Learning While Earning*, 2015.

Even when higher-income students work more, they tend to have more safety nets in the form of financial resources, programs geared toward helping them complete school, and other factors that protect them from the negative effects of working too many hours. As a result, they tend to have fewer challenges in persistence and completion in comparison to low-income students. Ten years out of high school, even higher-income students with poor grades (63%) are slightly more likely to complete a postsecondary credential compared to low-income students with higher grades (60%).⁶⁰

Students who work 15 or more hours per week may find it more difficult to maintain good grades than students who work fewer hours. Among low-income working learners who work 15 or more hours a week, 59 percent have a C average or lower, whereas among high-income working learners who work fewer than 15 hours a week, 65 percent have a B average or higher (Figure 2).

Students who work 15 or more hours per week may find it more difficult to maintain good grades than students who work fewer hours.

Low-income working learners tend to work in jobs unrelated to their studies. Among all working learners, about 60 percent work in one of two career fields: sales and office support occupations (34%), which include working as an administrative assistant or customer service representative, and food and personal services occupations (26%), which include serving food at a dining hall or working at a hair salon.⁶¹ Most of these jobs are temporary or part-time jobs that students tend to leave after they graduate. Our qualitative research and interviews with working learners associated with the ACT Foundation Working Learner Advisory Council revealed that low-income students are more likely to work in jobs not directly connected to their longer-term academic or professional goals.

⁶⁰ Carnevale and Smith, "Learning While Earning," 2016.

⁶¹ Carnevale et al., *Learning While Earning*, 2015.

Low-income working learners are less likely to have financial safety nets. Compared to their higher-income counterparts, low-income working learners are less likely to have a checking or savings account and the related financial security it provides. Among working learners in poverty, 10 percent do not have access to a bank account, compared to 4 percent of working learners with incomes greater than twice the federal poverty line.⁶² Lacking a checking or savings account and the resources it contains can leave students more vulnerable to missing class or falling behind on assignments if they encounter common dilemmas that they don't have the funds to address, such as a flat tire or a sick child. Without the funds easily on hand to repair the tire or take their child to the doctor, relatively modest problems can escalate into more complicated ones that ultimately interfere with the ability of low-income working learners to complete their degrees on a timely basis.

Why are low-income students working more now than ever before? Among the factors are the limitations of financial aid they receive relative to increased college costs. While federal Pell Grants are intended to help low-income students pay for college, they have not kept pace with tuition increases. In 2015, the maximum Pell Grant covered about 30 percent of the cost of an education at a four-year public college—only about half of the share it covered in 1980, and the lowest proportion in history, according to the US Department of Education.⁶³ Today, about 70 percent of Pell Grant recipients must also take out student loans to finance their education, and the majority of recipients also work: 40 percent of Pell Grant recipients are employed part time, and another 34 percent are employed full time.⁶⁴

The likelihood of borrowing for college is also tied to socioeconomic status,⁶⁵ which affects the decisions students make about which kind of debt to use and how much to take out. Low-income students tend to borrow less through conventional student loans to pay for school, and are instead more likely to turn to credit cards, which tend to have higher interest rates than student loans. A little less than a third (29%) of all working learners accessed credit cards to pay tuition and fees.⁶⁶ Low-income working learners were more likely to rely solely on credit cards to pay tuition and fees.⁶⁷ Even working more hours per week does not reduce their likelihood of using credit cards to pay for their education. In fact, those who worked *more* hours per week were more likely to do so: a little under a third (31%) of low-income working learners who work more than 15 hours per week paid their tuition with credit cards, compared to less than a quarter (22%) of low-income working learners who work 15 hours per week or less.⁶⁸

⁶² Carnevale and Smith, "Learning While Earning," 2016.

⁶³ US Department of Education, National Center for Education Statistics, "Trends in Pell Grant Receipt and the Characteristics of Pell Grant Recipients," 2015.

⁶⁴ Carnevale and Smith, "Learning While Earning," 2016.

⁶⁵ Ibid.

⁶⁶ Ibid.

⁶⁷ Among low-income working learners, 7 percent rely solely on credit cards to pay tuition and fees, compared to 6 percent for higher-income working learners; Georgetown University Center on Education and the Workforce analysis of data from US Department of Education, National Center for Education Statistics, *National Postsecondary Student Aid Study (NPSAS)*, 2012.

⁶⁸ Carnevale and Smith, "Learning While Earning," 2016.

While half of students from public four-year institutions take out student loans to pay for their education, only 18 percent of students who attend community colleges (who are more likely to be low-income individuals) do so.⁶⁹

The combination of stronger financial safety nets with better access to resources and support systems that can help make sense of complex financial aid systems may lead higher-income students to feel better equipped to assume the risk associated with taking out loans.⁷⁰ There is also a positive relationship between parents' education level and a student's likelihood of taking out loans, as parents with a college education and their children may feel less risk-averse about borrowing large sums of money to pay for college.⁷¹

Aversion to taking out student loans and greater reliance on credit cards can ultimately end up working against low-income working learners. Trying to pay a larger share of college costs from current earnings can create unintended pressures on students to work longer hours, which in turn can have a negative impact on their academic performance and completion goals, all while credit cards' higher interest rates increase the size of their overall debt burden.

Aversion to taking out student loans and greater reliance on credit cards can ultimately end up working against low-income working learners.

Working while attending college tends to hurt low-income students, though it is not clear if the number of hours worked has the greatest impact on suboptimal academic outcomes. Other factors may play a significant role as well, such as having less access to support services like academic and career counseling (which are more likely to be found at more selective public and private colleges, which low-income students are less likely to attend) and holding jobs that are less likely to be connected to their long-term career objectives.

⁶⁹ Carnevale and Smith, "Learning While Earning," 2016.

⁷⁰ Ibid.

⁷¹ Ibid.



POLICY AND PRACTICE

Recommendations

The types of jobs many low-income students hold too often are not directly related to their future career aspirations. Higher-income students have greater access to jobs in wealthier neighborhoods and to career mentors and professional networks of highly educated family members and friends.

Low-income students are at a disadvantage: although they have the greatest need for optimal work experiences, they may have the hardest time finding those experiences. And if they work too many hours at jobs not directly tied to their careers, their work experiences can cause more harm than good, ultimately detracting from their longer-term academic and career goals.

Given what we know about the benefits and opportunity costs of working for both higher-income and low-income students, what should policymakers and college administrators do?

Colleges need to better inform students of tradeoffs between working and learning.

While having some level of employment during one's studies is generally helpful to employment and earnings outcomes, employment while enrolled should be considered only complementary to studies. The value of education is generally much greater than the value of work, because successfully completing more education has a greater influence on future income and working too many hours can have negative effects on students' chances of completing their education. However, sometimes there is no real choice or way around it: many low-income students simply have to work to survive.

College leaders must do more to inform students before they enter college about the costs and benefits of working while in school, the kinds of opportunities that are most likely to yield the most positive results, and how they can better synchronize what they are studying with the jobs they may hold while in school and with their long-term career objectives.

We need to build stronger connections between education and work beginning in K–12.

Early career counseling and career development are a critical but often overlooked issue in K–12 education. Students need to get the message about the importance of persistence and college completion long before they even enter college. And more than ever, students need stronger ties between education and the world of work. They need to learn about how different majors, degrees, and credentials can open (or close) access to different types of jobs and income levels, and to become more aware of the risks of dropping out or taking too long to complete college, which can leave them with little but debt to show for their investment of time and effort. About 47 percent of low-income, first-generation college students drop out without a credential within six years of enrolling, with the top reason cited being the need to earn money.⁷²

In their paper "Pathways to Upward Mobility," Robert Schwartz and Nancy Hoffman, the co-leaders of the Pathways to Prosperity Network, assert that both the education system and employers need to link school and work systems more closely.⁷³ Specifically, they call for employers to build more formalized partnerships with schools to offer internships and apprenticeships, job shadowing, and other forms of learning in and about the workplace that is tied to what students are studying in school. These experiences would also educate students about different career options and what they need to do to be prepared to enter those fields.

⁷² The Institute for College Access and Success, *On the Verge*, 2016; Pell Institute, "Six-Year Degree Attainment Rates for Students Enrolled in a Post-Secondary Institution," 2011.

⁷³ Schwartz and Hoffman, "Pathways to Upward Mobility," 2015.

Schwartz and Hoffman call for career pathways programs that are linked across K–12, postsecondary, and workforce systems, but acknowledge that this can be a challenging endeavor as each system has its own governance arrangements, funding streams, constituencies, and bureaucracies. They cite as a model the state of California, which appropriated \$500 million for the California Career Pathways Trust, a competitive grants program launched in 2014 to support initiatives that bring together school districts, charter schools, and community colleges with business partners to build career pathways in “high skill, high-growth fields designed not only to enable more young people to successfully transition from high school to community college to work, but also to fuel regional economic growth.”⁷⁴

Low-income students would benefit from financial education provided as early as middle school.

Early career counseling alone might still not be enough, though. Financial education is also a key factor in determining student success. In this report, we observed marked differences by income level in the way students financed their education. Low-income students tend to be more risk-averse in taking out loans, even when those loans have the potential to put them in a better economic position and free up time to study and complete their college education. Financial education offered as early as middle school can teach students about making informed choices and the costs and benefits of taking out loans.

Low-income students tend to be more risk-averse in taking out loans, even when those loans have the potential to put them in a better economic position and free up time to study and complete their college education.

Too often students choose not to go to college at all or attend a less selective college than they were qualified to attend simply because of the difficulties they encounter in navigating the financial aid system. These difficulties are further compounded when parents who may never have gone to college themselves have not acquired the knowledge and information about different aspects of attending college that would help their children. Integrating financial aid into the curriculum—as opposed to offering an occasional workshop—can go a long way toward normalizing financial understanding at an early age, and can foster frank conversations about paying for college at home.

⁷⁴ California Department of Education, “California Career Pathways Trust (CCPT),” 2017.

Colleges should improve their career counseling and guidance services for working learners. More organized, systematic, and intentional career guidance must continue when students enter college. Students need academic and career advising that builds stronger connections between their studies, their current jobs, and their future careers.

Higher education institutions also need to do more to tackle the question of what kinds of jobs students are holding while they are in school, with a particular emphasis on helping low-income students find employment options that are more clearly connected to their field of study and long-term career goals. Colleges may wish to consider how resources spent on work-study jobs might be redeployed to place more students in jobs that help them meet their professional objectives, rather than using their work-study placements as a convenient way to fill low-skill, low-paying campus jobs in the dining hall or gym. Low-income students also need more organized systems and assistance to help them access the mentors and networking contacts needed to land better jobs that can provide experience more directly related to their desired careers.

Students need academic and career advising that builds stronger connections between their studies, their current jobs, and their future careers.

Low-income students could also benefit from personal finance advising sessions and improved communications that take into account the different financial situations they face and how those circumstances affect their decisions. Community college students in particular are less likely to receive aid than students at public or nonprofit four-year colleges, and the grants they receive are small; as a result, low-income community college students often struggle to cover basic expenses, including food, rent, gas, and books.⁷⁵ Two-thirds of financial aid recipients say that if they received an additional \$3,000 in aid, they would be “extremely or very likely” to enroll in more college credits, and 76 percent of financial aid recipients say they would be “extremely or very likely” to spend more time studying or doing school-related academic activities.⁷⁶ Additional investments in aid along with better advising about degree pathways and course selection could facilitate their ability to complete their degrees on time.

⁷⁵ The Institute for College Access and Success, *On the Verge*, 2016; Radwin et al., *2011–12 National Postsecondary Student Aid Study (NPSAS:12)*, 2013.

⁷⁶ The Institute for College Access and Success, *On the Verge*, 2016.

To help working learners from all backgrounds, we should strengthen the connections between learning and work.

Helping low-income working learners will require systemic reform that cuts across institutional silos. We can erase these counterproductive divides by building a superhighway from high school to college, career, and lifelong learning with multiple pathways to adulthood and no educational or career dead ends. These pathways would begin in ninth grade and infuse high school with early college programs and work-based learning.

We must be sure that pathway programs do not reinforce the class-based and race-based tracking deeply embedded in American society, which, unfortunately, is the default tendency in American education. President Bill Clinton's School-to-Work Opportunities initiative failed to gain traction because it was criticized as tracking students by race and class.

Strengthening the connections between postsecondary education and careers will require policies that promote transparency in the economic value of education and encourage work-based learning. The most cost-effective way to strengthen the connections between postsecondary education and careers is to ensure that students, parents, educators, and policymakers understand the labor market outcomes of postsecondary programs.

Federal and state policymakers have made substantial progress over the past decade in developing data systems that allow us to measure the economic value of postsecondary programs. While continuing to enhance the robustness of these data, they should now deliver the information to consumers in an easily digestible, user-friendly format, such as a mobile app, so consumers can use the data to make informed choices about the programs they enroll in and the careers they pursue. Policymakers can promote innovation in how the data are presented and delivered to consumers by funding innovative delivery technologies through competitive grant programs.

Another way policymakers can promote better outcomes for working learners is to ensure they get relevant work experience. Work experience provides the most value when it is connected to students' long-term career goals. The Federal Work-Study (FWS) program, which subsidizes part-time employment for students, should be reformed to promote working in fields related to students' majors or fields of study by extending eligibility for FWS to nonprofit and for-profit employers off campus. The Opportunities for Success Act, sponsored by Rep. Suzanne Bonamici [D-OR], would similarly provide federal grants to institutions to support low-income students working in unpaid internships.

Promoting policies and practices that strengthen the connections between education and work will help working learners of all backgrounds move to and through college on their way to a successful career and, at a minimum, a middle-class life.



Conclusion

The pathways that students take to economic opportunity and jobs that pay well are still too closely tied to family income. Indeed, family income is still a major determinant of college enrollment, selectivity, completion, and long-term economic success.

Several accumulating factors contribute to this result:⁷⁷

- ▶ The share of students from low-income families who enroll in college immediately after graduating from high school has declined and continues to decline.⁷⁸
- ▶ Low-income students are less likely to complete college on the whole and are more susceptible to dropping out.
- ▶ Low-income students are less likely to enroll in four-year or selective institutions, or to graduate with a bachelor's degree.
- ▶ Low-income students who work while enrolled are more likely to work outside of their fields, meaning they are less likely to acquire skills that would be useful in getting that dream job later on.
- ▶ Working while enrolled generally tends to benefit higher-income students and tends to harm or disadvantage low-income students, but low-income students often have less of a real choice about whether and how much to work.

Looking forward, college and university leaders must weigh the unique challenges low-income working students face and marshal more resources to improve these students' academic and career outcomes. Additional attention must be focused on building stronger connections between education and work beginning in the K–12 years, improving career counseling and guidance in postsecondary institutions, and improving support services for working learners, with a special emphasis on meeting the needs of low-income students.

⁷⁷ Carnevale and Smith, "Learning While Earning," 2016; Carnevale et al., *Learning While Earning*, 2015.

⁷⁸ US Department of Education, National Center for Education Statistics, *Digest of Education Statistics*, 2015.

References

- Bailey, Martha J., and Susan M. Dynarski. "Inequality in Postsecondary Education." In *Whither Opportunity? Rising Inequality and the Uncertain Life Chances of Low-Income Children*, edited by Greg J. Duncan and Richard J. Murnane. New York, NY: Russell Sage Foundation, 2011.
- Cahalan, Margaret, Laura W. Perna, Mika Yamashita, Roman Ruiz, and Khadish O. Franklin. *Indicators of Higher Education Equity in the United States: 2016 Historical Trend Report*. Washington, DC: Pell Institute for the Study of Opportunity in Higher Education, Council for Opportunity in Education, and Alliance for Higher Education and Democracy of the University of Pennsylvania, 2016.
- California Department of Education. *California Career Pathways Trust (CCPT)*. <http://www.cde.ca.gov/ci/ct/pt/>.
- Campbell, Colleen, Debbie Cochrane, Ivy Love, and Ellie Bruecker. *Aiding Success: The Role of Federal and State Financial Aid in Supporting California Community College Students*. Washington, DC: Association of Community College Trustees in collaboration with the Institute for College Access and Success (TICAS), 2017. <http://www.ticas.org/content/pub/aiding-success>.
- Carnevale, Anthony P., Tanya I. Garcia, and Artem Gulish. *Career Pathways: Five Ways to Connect College and Careers*. Washington, DC: Georgetown University Center on Education and the Workforce, 2017.
- Carnevale, Anthony P., and Andrew R. Hanson. "Learn and Earn: Connecting Education to Careers in the 21st Century." In *Transforming U.S. Workforce Policies for the 21st Century*, edited by Carl Van Horn, Tammy Edwards, and Todd Greene. Kalamazoo, MI: W.E. Upjohn Institute for Employment Research, 2015.
- Carnevale, Anthony P., Andrew R. Hanson, and Artem Gulish. *Failure to Launch: Structural Shift and the New Lost Generation*. Washington, DC: Georgetown University Center on Education and the Workforce, 2013.
- Carnevale, Anthony P., and Stephen J. Rose. *The Economy Goes to College: The Hidden Promise of Higher Education in the Post-Industrial Service Economy*. Washington, DC: Georgetown University Center on Education and the Workforce, 2015.
- Carnevale, Anthony P., and Nicole Smith. "Learning While Earning: How Low Income Working Learners Differ from All Other American College Students." In *Getting in the Fast Lane: Ensuring Economic Security and Meeting the Workforce Needs of the Nation*. Washington, DC: Association of Community College Trustees (ACCT), 2016.
- Carnevale, Anthony P., Nicole Smith, Michelle Melton, and Eric W. Price. *Learning While Earning: The New Normal*. Washington, DC: Georgetown University Center on Education and the Workforce, 2015.

- Carnevale, Anthony P., Nicole Smith, and Jeff Strohl. *Recovery: Job Growth and Education Requirements through 2020*. Washington, DC: Georgetown University Center on Education and the Workforce, 2013.
- Carnevale, Anthony P., and Jeff Strohl. "How Increasing College Access Is Increasing Inequality, and What to Do About It." In *Rewarding Strivers: Helping Low-Income Students Succeed in College*, edited by Richard D. Kahlenberg. New York, NY: Century Foundation Press, 2010.
- Carnevale, Anthony P., and Jeff Strohl. *Separate and Unequal: How Higher Education Reinforces the Intergenerational Reproduction of White Racial Privilege*. Washington, DC: Georgetown University Center on Education and the Workforce, 2013.
- Chetty, Raj, John N. Friedman, Emmanuel Saez, Nicholas Turner, and Danny Yagan. "Mobility Report Cards: The Role of Colleges in Intergenerational Mobility." The Equality of Opportunity Project, 2017. http://www.equality-of-opportunity.org/papers/coll_mrc_paper.pdf.
- College Board. *Trends in Higher Education* (various years). New York, NY: The College Board. <https://www.collegeboard.org/?navId=trends-cb>.
- Columbia University, Teachers College, Community College Research Center. "Community College FAQs." <http://ccrc.tc.columbia.edu/Community-College-FAQs.html>.
- Davis, Jessica. "School Enrollment and Work Status: 2011." *American Community Survey Briefs, ACSBR/11-14*. Washington, DC: US Census Bureau, 2012.
- Fernandes-Alcantara, Adrienne L. *Vulnerable Youth: Employment and Job Training Programs*. Washington, DC: Congressional Research Service, 2017. <https://fas.org/sgp/crs/misc/R40929.pdf>.
- Gardner, David P., et al. *A Nation at Risk: The Imperative for Educational Reform. An Open Letter to the American People. A Report to the Nation and the Secretary of Education*. Washington, DC: US Department of Education, 1983.
- Goldin, Claudia D., and Lawrence F. Katz. "The Future of Inequality: The Other Reason Education Matters So Much." Washington, DC: Aspen Institute, 2009. Previously published in *Milken Institute Review*, 3rd Quarter, 2009.
- Goldrick-Rab, Sara. "What Colleges Can Do Right Now to Help Low-Income Students Succeed." *Chronicle of Higher Education*, August 28, 2016. <http://www.chronicle.com/article/What-Colleges-Can-Do-Right-Now/237589>.
- Hoxby, Caroline M., and Christopher Avery. "The Missing 'One-Offs': The Hidden Supply of High-Achieving, Low Income Students." NBER Working Paper 18586, December 2012. Cambridge, MA: National Bureau of Economic Research, 2012.
- Kezar, Adrianna. "Financial Literacy, a Key to Success for Low-Income Students." *Chronicle of Higher Education*, May 9, 2010. <https://www.chronicle.com/article/Financial-Literacy-a-Key-to/65418>.

- Ma, Jennifer, and Sandy Baum. "Trends in Community Colleges: Enrollment, Prices, Student Debt, and Completion." *College Board Research Brief*. New York, NY: The College Board, 2016.
- Morisi, Teresa L. "Teen Labor Force Participation before and after the Great Recession and Beyond." *Monthly Labor Review*, US Bureau of Labor Statistics, February 2017.
- Pell Institute for the Study of Opportunity in Higher Education. "6-Year Degree Attainment Rates for Students Enrolled in a Post-Secondary Institution." Washington, DC: Pell Institute, 2011. http://www.pellinstitute.org/downloads/fact_sheets-6-Year_DAR_for_Students_Post-Secondary_Institution_121411.pdf.
- Purnell, Rog air, Susan Blank, Susan Scrivener, and Reishman Seupersad. "Support Success: Services That May Help Low-Income Students Succeed in Community College." New York, NY: MDRC, 2004.
- Radwin, David, Jennifer Wine, Peter Siegel, and Michael Bryan. *2011–12 National Postsecondary Student Aid Study (NPSAS: 12): Student Financial Aid Estimates for 2011–12: First Look*. (NCES No. 2013–165). Washington, DC: US Department of Education, National Center for Education Statistics, 2013.
- Schwartz, Robert, and Nancy Hoffman. "Pathways to Upward Mobility." *National Affairs*, Summer 2015. <https://www.nationalaffairs.com/publications/detail/pathways-to-upward-mobility>.
- Snellman, Kaisa, Jennifer M. Silva, Carl B. Frederick, and Robert D. Putnam. "The Engagement Gap: Social Mobility and Extracurricular Participation among American Youth." *Annals of the American Academy of Political and Social Science* 657, no. 1 (2015): 194–207.
- Spencer, Kyle. "Taking Summer School to Get Ahead, Not Catch Up." *New York Times*, August 16, 2016.
- Sum, Andrew, Ishwar Khatiwada, Mykhaylo Trubskyy, Martha Ross, Walter McHugh, and Sheila Palma. *The Plummeting Labor Market Fortunes of Teens and Young Adults*. Washington, DC: Brookings Institution, 2014.
- Sum, Andrew, Ishwar Khatiwada, and Sheila Palma. *Vanishing Work among US Teens, 2000–10: What a Difference a Decade Makes! Four Million Missing Workers in June 2010*. Boston, MA: Center for Labor Market Studies, Northeastern University, 2010.
- The Institute for College Access and Success (TICAS). *College Insight*. <http://college-insight.org/#explore/go&h=5a2a1cfde1b063c5e55e84f1ceae7728>.

- The Institute for College Access and Success (TICAS). *On the Verge: Costs and Tradeoffs Facing Community College Students*. Washington, DC: The Institute for College Access and Success, 2016.
- The Institute for College Access and Success (TICAS). "Quick Facts about Student Debt." Washington, DC: The Institute for College Access and Success, 2014.
- US Census Bureau. *American Community Survey (ACS): 2012–2015 (pooled data): one-year person level micro data files*. Ruggles, Steven, Katie Genadek, Ronald Goeken, Josiah Grover, and Matthew Sobek. *Integrated Public Use Microdata Series USA: Version 6.0*. Minneapolis, MN: University of Minnesota, 2015.
- US Census Bureau and Bureau of Labor Statistics. *Current Population Survey March Supplement (Annual Economic and Social Supplement) microdata files, 1970, 1980, 2016, 2017*. https://thedataweb.rm.census.gov/ftp/cps_ftp.html.
- US Department of Education, National Center for Education Statistics. *Beginning Postsecondary Students Longitudinal Study (BPS), 2012/2014 and 2004/2009*.
- US Department of Education, National Center for Education Statistics. *Digest of Education Statistics, 2015*. <https://nces.ed.gov/programs/digest/>.
- US Department of Education, National Center for Education Statistics. *Education Longitudinal Study of 2002 (ELS:2002), Third Follow Up, 2012*.
- US Department of Education, National Center for Education Statistics. "Fast Facts." Washington, DC: US Department of Education. <https://nces.ed.gov/fastfacts/display.asp?id=372>.
- US Department of Education, National Center for Education Statistics. *High School Longitudinal Study of 2009 (HSL:09)*. Washington, DC: US Department of Education, 2009.
- US Department of Education. *National Assessment of Career and Technical Education: Final Report to Congress*. Washington, DC: US Department of Education, 2014.
- US Department of Education, National Center for Education Statistics. "Trends in Pell Grant Receipt and the Characteristics of Pell Grant Recipients: Selected Years, 1999–2000 to 2011–12." Washington, DC: US Department of Education, 2015.

Appendix: Working Learner Characteristics and Outcomes by Income Level

Low-income working learners **Higher-income working learners**

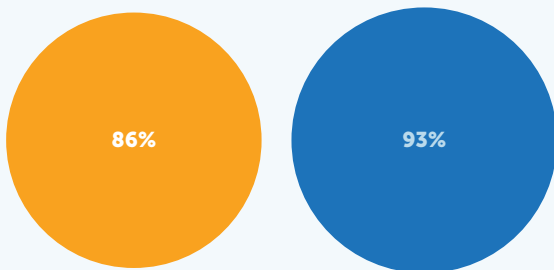
WORKING LEARNERS BY INCOME GROUP



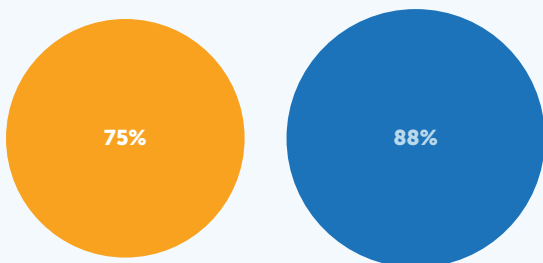
MARITAL STATUS (MARRIED)



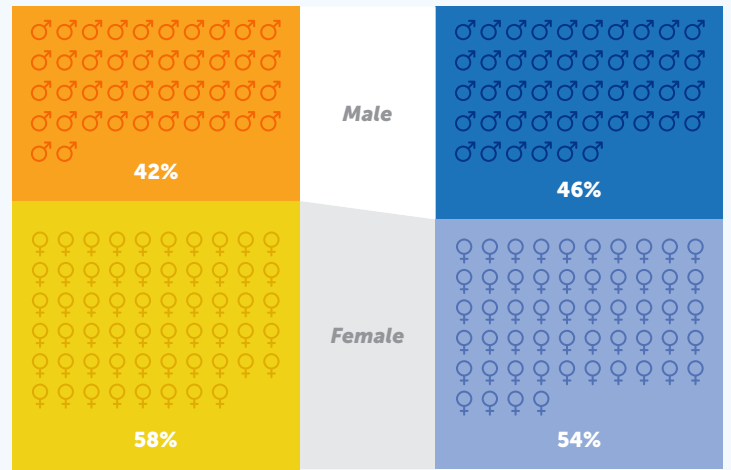
BORN IN THE USA



ENGLISH IS THE PRIMARY LANGUAGE SPOKEN IN THE HOUSEHOLD



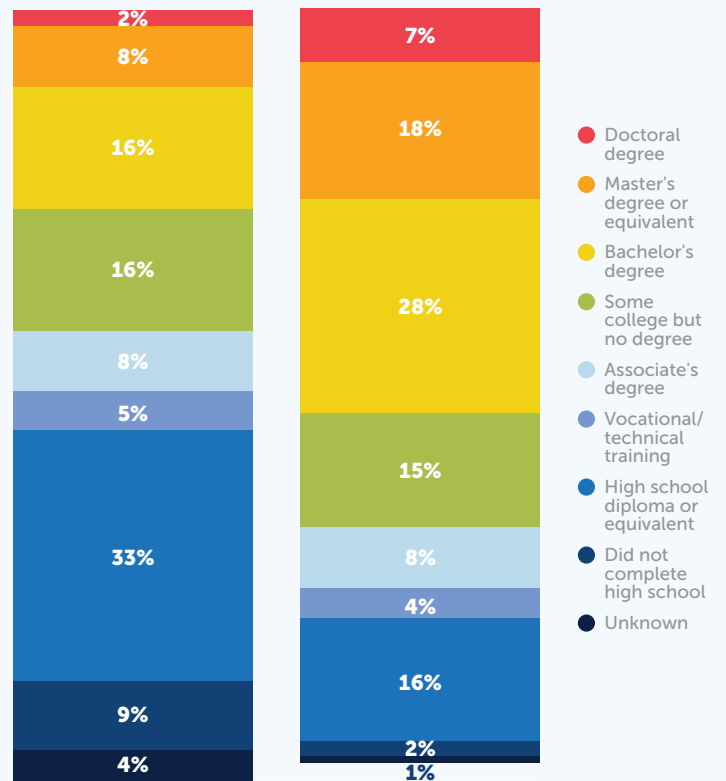
SEX



Low-income working learners

Higher-income working learners

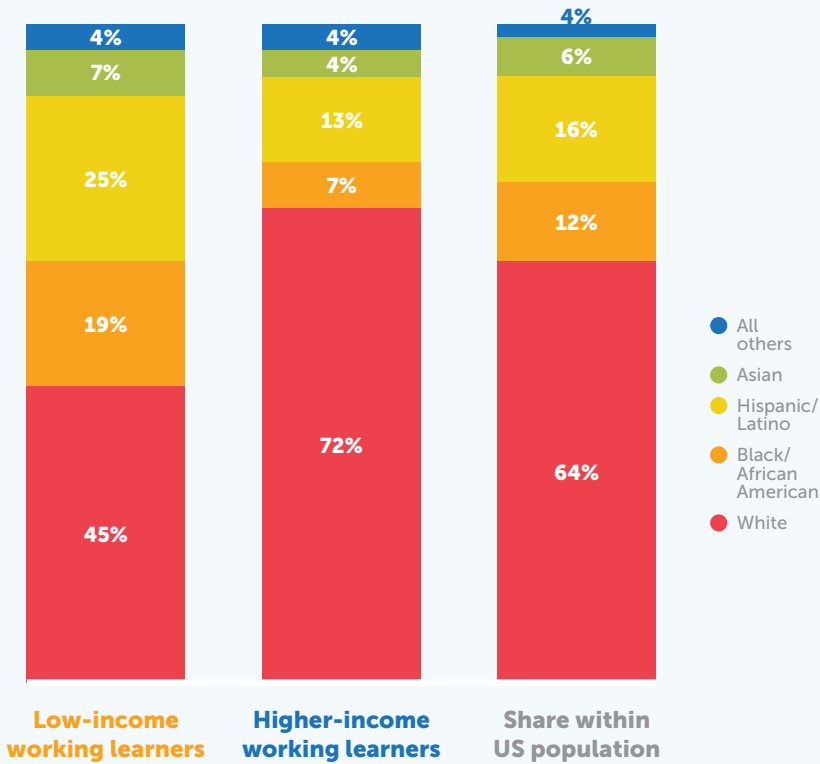
PARENTAL EDUCATIONAL ATTAINMENT



Low-income working learners

Higher-income working learners

RACE/ETHNICITY



BACHELOR'S DEGREE ATTAINMENT BY MATH PERFORMANCE IN HIGH SCHOOL

Scored in the top quartile



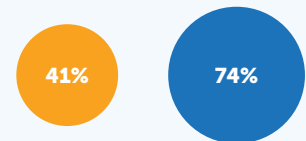
Scored in the second quartile



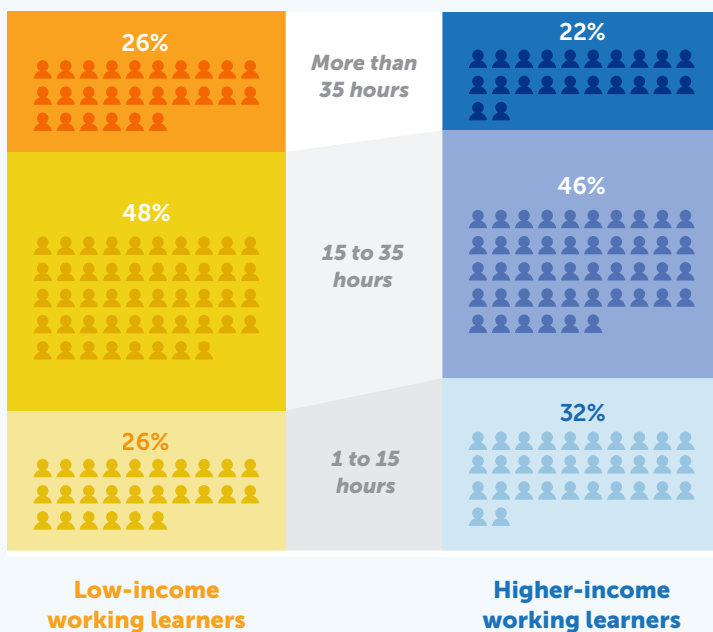
Scored in the third quartile



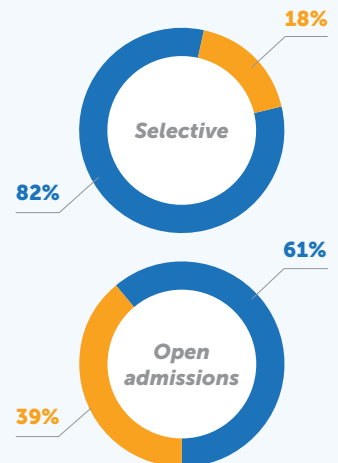
Scored in the fourth quartile



HOURS WORKED EACH WEEK WHILE ENROLLED

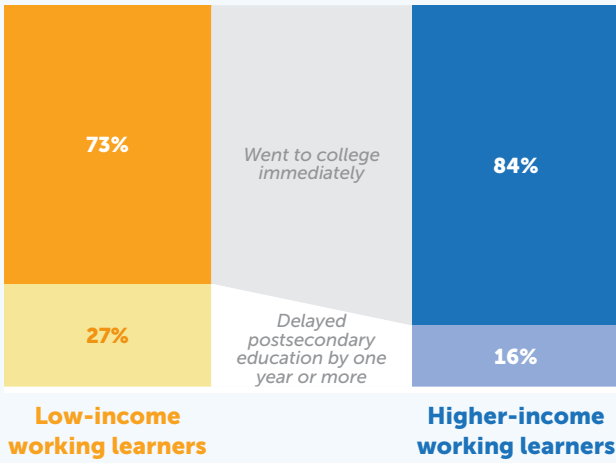


SELECTIVITY OF COLLEGE ATTENDED

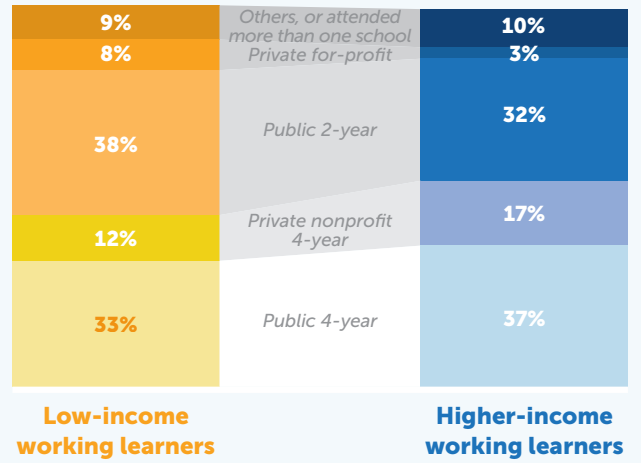


Appendix: Working Learner Characteristics and Outcomes by Income Level (continued)


SUCCESION TO COLLEGE AFTER HIGH SCHOOL



TYPE OF COLLEGE ATTENDED



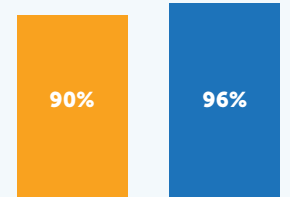
 **Low-income working learners**

 **Higher-income working learners**

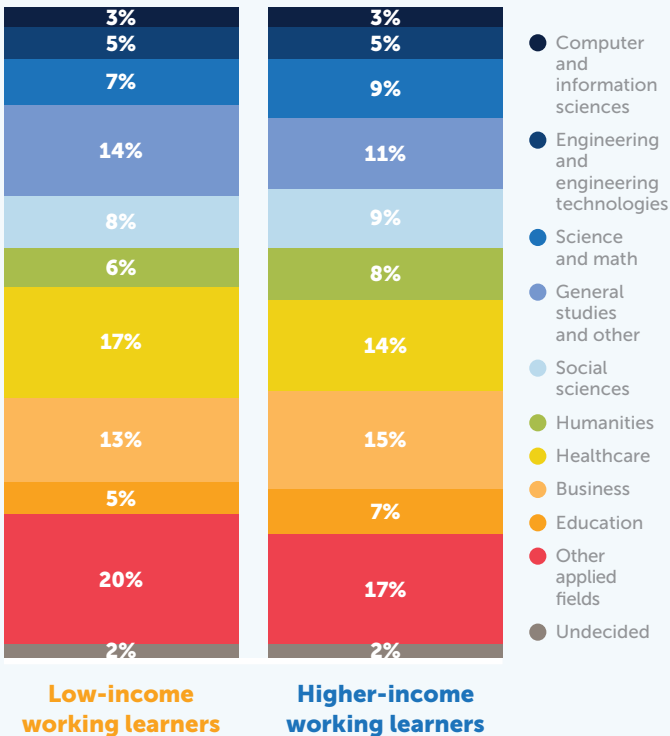
USED CREDIT CARDS AS ONLY SOURCE TO PAY FOR TUITION AND FEES



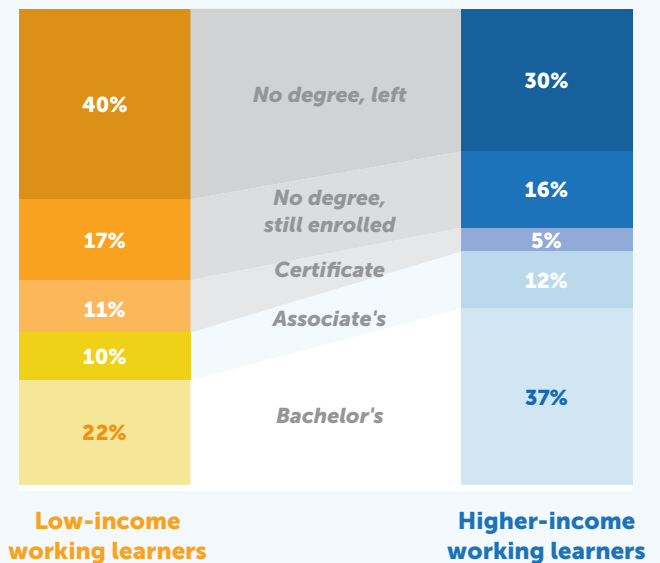
HAD A CHECKING ACCOUNT OR A SAVINGS ACCOUNT



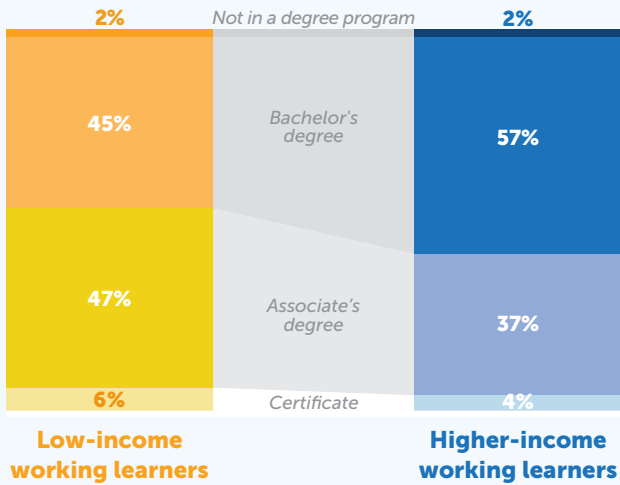
CHOICE OF MAJOR



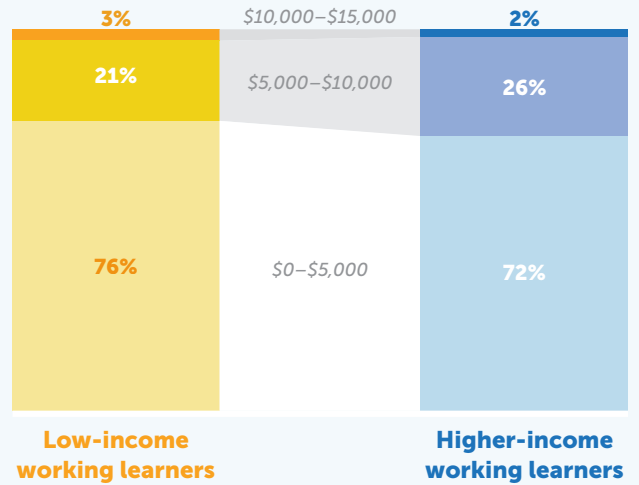
DEGREE OR PROGRAM COMPLETION



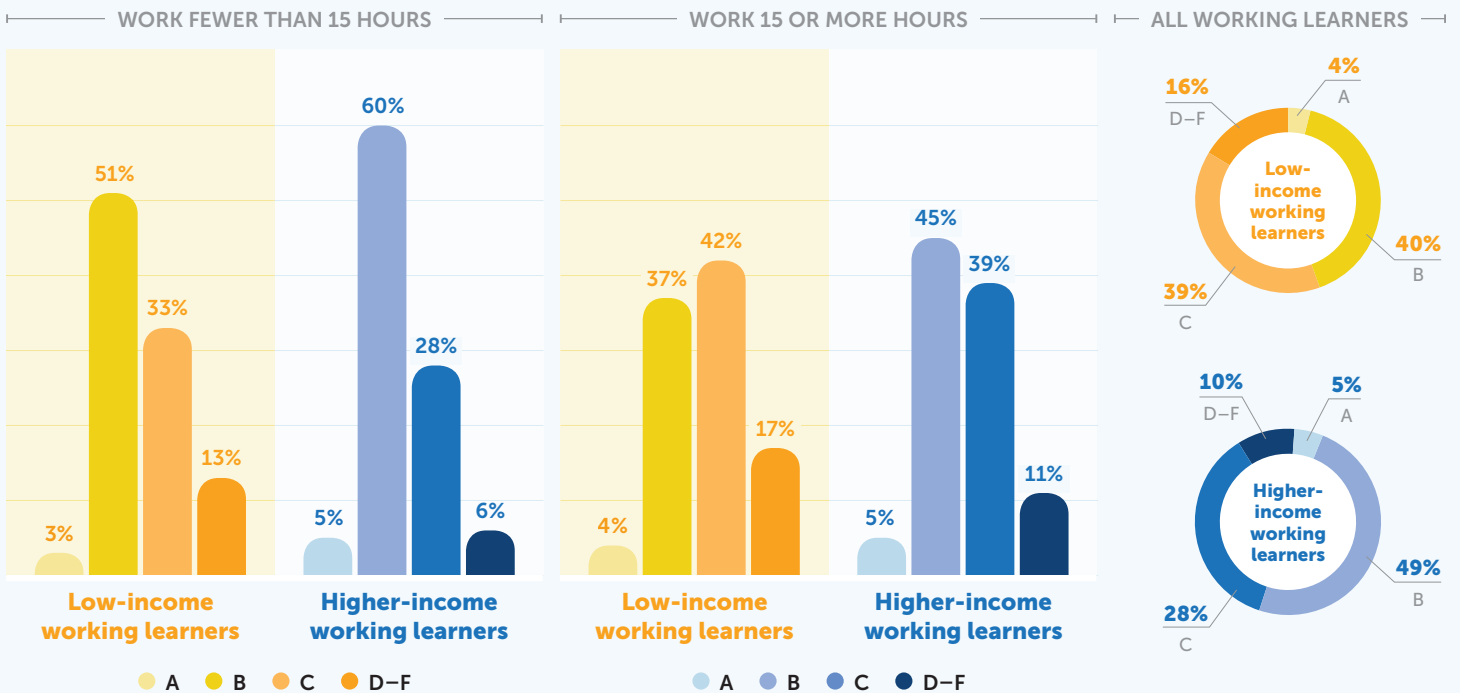
POSTSECONDARY PROGRAM



FEDERAL STUDENT LOAN DEBT, EXCLUDING LOANS TO PARENTS



GRADES




Sources: US Department of Education, National Center for Education Statistics, *2008/12 Baccalaureate and Beyond Longitudinal Study (B&B:08/12)*, 2012; US Department of Education, National Center for Education Statistics, *National Postsecondary Student Aid Study (NPSAS)*, 2012; US Department of Education, National Center for Education Statistics, *Education Longitudinal Study of 2002 (ELS:2002), Third Follow Up*, 2012; US Department of Education, National Center for Education Statistics, *Beginning Postsecondary Students Longitudinal Study*, 2012/2014 and 2004/2009; and US Census Bureau, *American Community Survey, 2012–2015* (pooled data).

Note: Graphics may not add up to 100 percent due to rounding.

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