



Equity in Working and Learning Among U.S. Adults:

Are There Differences in Opportunities, Supports, and Returns?

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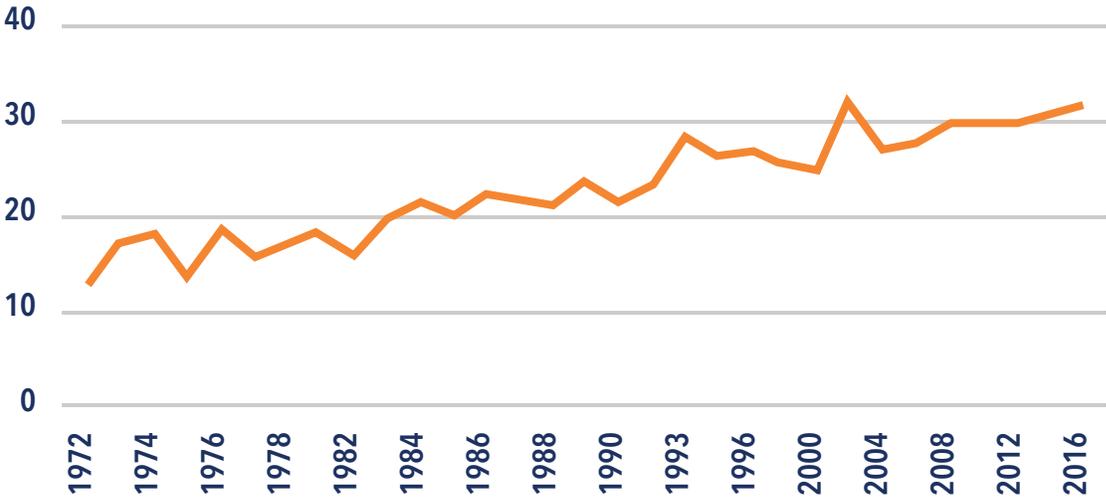
July 2017

Rapid economic change and innovation have led to a new reality in which education and work are no longer separate and sequential activities; instead, a majority of workers now see gaining new skills as important to their career success and wellbeing.^[1] In recent years, ACT Center for Equity in Learning, Georgetown University’s Center on Education and the Workforce, and others have placed a spotlight on working learners – individuals engaged simultaneously in both education and work – and documented the challenges and opportunities that working learners face in navigating educational pathways and career transitions.^[2–7] Yet, wider dynamics related to equity for working learners in the context of the U.S. workforce remain largely unexplored. This report takes a close look at nationwide trends in individuals’ attitudes related to education and equity, their engagement with formal and informal learning, employer support, and the actual returns to education for working learners. Further, it considers how the opportunities, support for, and returns to working and learning vary across cohorts, by educational attainment, and industry. It concludes by drawing out recommendations for policy and practice.

Expansion in Higher Education and Changing Attitudes about Equity

Rapid growth in higher education in the U.S. has offered those fortunate enough to attain college degrees privileged access to good jobs, higher earnings, and social mobility for themselves and their children.^[8–10] Over the past 45 years, the percentage of working-age adults with at least a bachelor’s degree has risen from 13 percent in 1972 to 31 percent in 2016 (**Figure 1**).

Figure 1. Percent of Working-age Adults with a Bachelor’s Degree

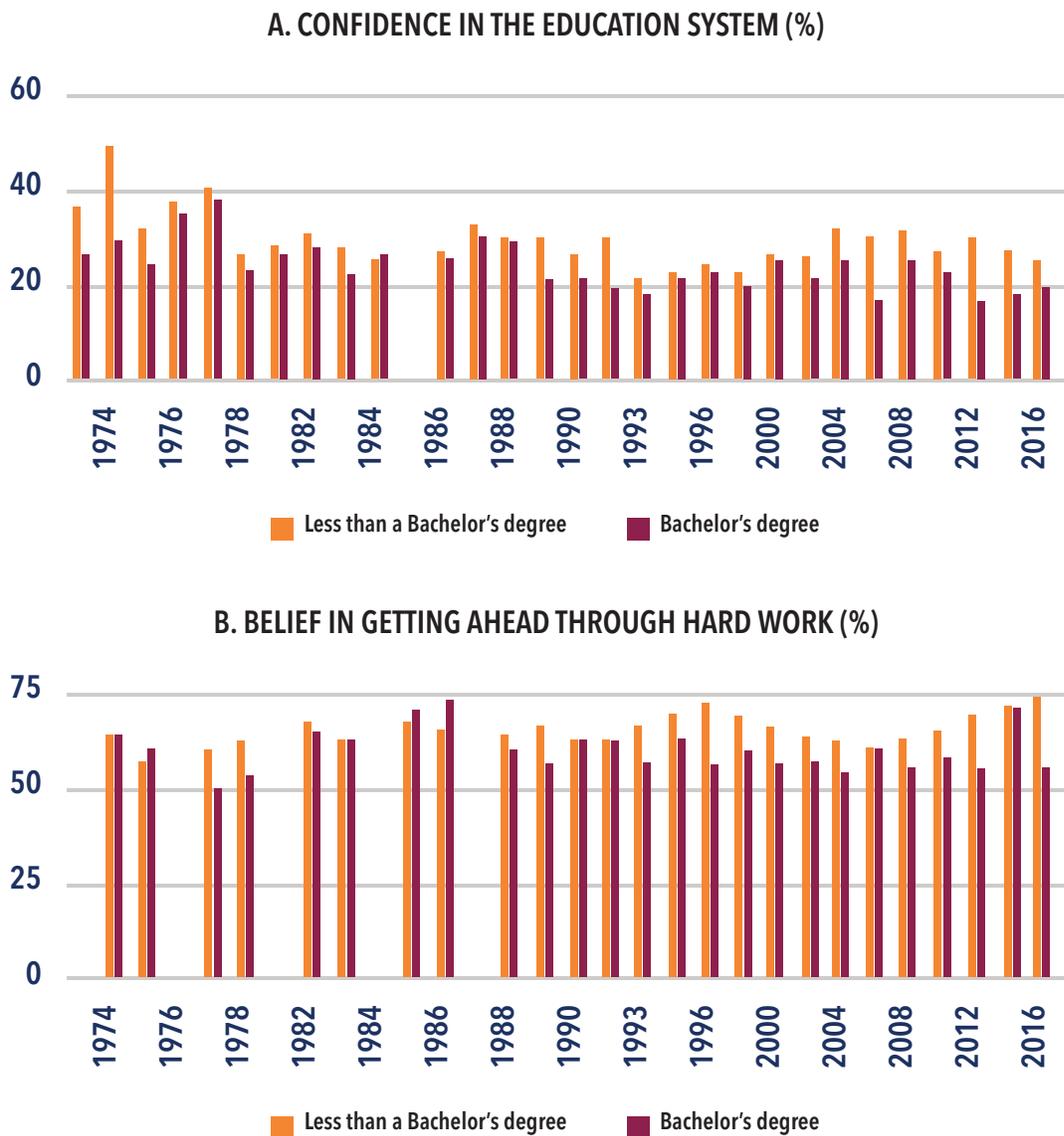


Source: General Social Survey, 1972-2016. Weighted estimates for adults 18-65 in the workforce (N=41,027).

At the same time, however, attitudes about education and equity have also evolved. In particular, Americans’ confidence in the education system – the central avenue for social mobility – has declined over the past several decades, as has confidence in most large societal institutions.^[11] Despite this, Americans today remain confident that hard work, rather than luck, is the key to getting ahead.

Figure 2 examines whether Americans who have succeeded in attaining bachelor’s degrees are more confident in the education system (Part A) or in the centrality of hard work for getting ahead (Part B). It shows that, in fact, the opposite is true. Surprisingly, those without college degrees (lighter lines) show greater confidence in the education system and a stronger belief that getting ahead is the result of hard work than people with bachelor’s degrees (darker lines). Thus, individuals who have successfully navigated the U.S. education system – people with a bachelor’s degree – have less confidence in it and more reservations about their ability to get ahead through hard work. On the other hand, adults disadvantaged in the labor market by the lack of a college degree remain more optimistic about education and equity.

Figure 2. Attitudes Related to Education and Equity by Educational Attainment



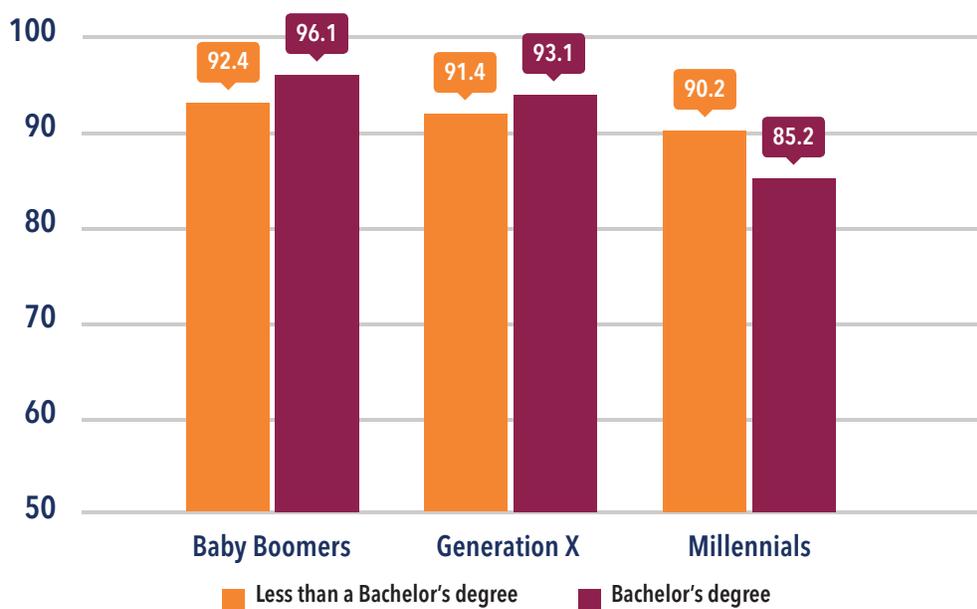
Source: General Social Survey, 1972-2016. Weighted estimates for adults 18-65 in the workforce (N=41,027).

Opportunities to Apply Skills and Continue to Learn at Work

One explanation for this growing cynicism – particularly among college-educated workers – is that increasing social inequality and a new emphasis on lifelong learning have cultivated a sense of uncertainty about the link between the education system and economic and career stability.^[1,11,12] Though completing a college degree remains a critical component of social mobility,^[9] retaining the benefits of a college degree increasingly demands finding ongoing opportunities to use one’s skills and to gain new skills at work.^[13]

Indeed, today’s workers show generational differences in opportunities to apply their skills and to acquire new skills in the workplace. As shown in **Figure 3**, a majority of all workers agree or strongly agree that they use their skills at their jobs. Yet, college-educated workers (darker bars) from earlier cohorts, including the Baby Boomers (born 1946-1964) and Generation Xers (1965-1979) are more likely to say they use their skills and abilities than peers from the same cohorts without bachelor’s degrees (lighter bars). However, the opposite is true for Millennials (1980-2006) in the workforce; among these early-career workers, those with bachelor’s degrees are less likely to think that their jobs use their skills and abilities (85 percent) compared to their peers who did not complete bachelor’s degree (90 percent). It may be the case that in time, Millennials with college degrees will move into roles that they see as a better fit for their skills and abilities. At present, however, Millennials with college degrees are more likely than college-educated workers from earlier generations and Millennial peers who have not completed a bachelor’s degree to feel under-placed at work in terms of their skills and abilities.^[see also 13]

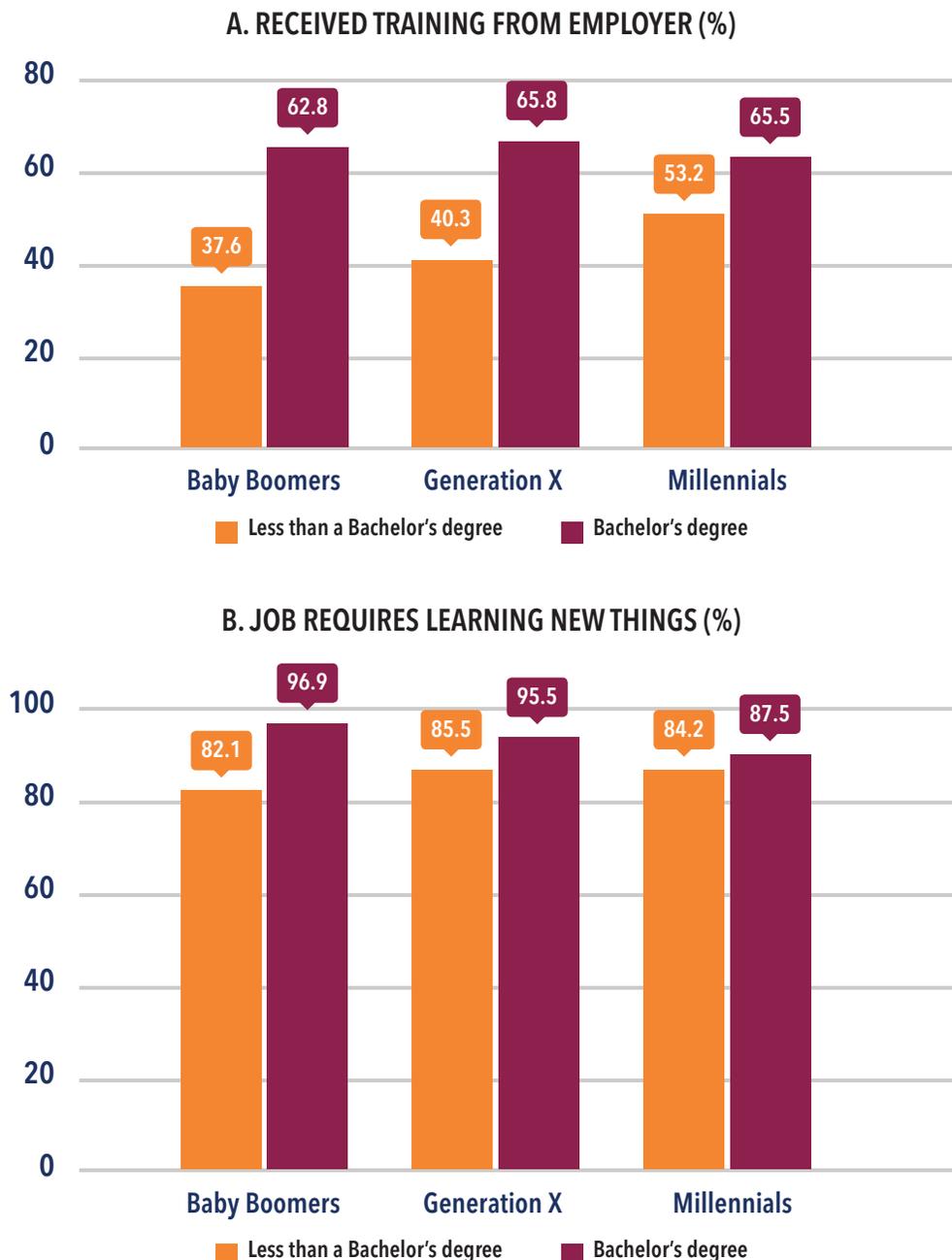
Figure 3. Uses Skills at Work by Cohort and Educational Attainment (%)



Source: General Social Survey, 2010-2014. Weighted estimates for adults 18-65 in the workforce (N=2,985).

Increasingly, jobs represent not only opportunities to apply one’s skills but also a setting in which to develop new ones, even for already advantaged workers. For example, a 2016 Pew study noted that while 45 percent of adults with no college experience reported that ongoing training or skill development would be crucial to their career success, the same was true for 63 percent of bachelor’s degree holders.^[1] **Figure 4** considers equity in workers’ opportunities to learn on the job by cohort and educational attainment in the same way as before. Part A of **Figure 4** shows that overall, employees with bachelor’s degrees are more likely to receive formal training from their employers such as training sessions or coursework. Yet, the premium in opportunities for training at work among college-educated workers is smallest among Millennials. This declining premium appears to be due to more opportunities for formal learning among recent cohorts of workers with less than a bachelor’s degree.

Figure 4. Opportunities to Learn at Work by Cohort and Educational Attainment



Source: General Social Survey, 2010-2014. Weighted estimates for adults 18-65 in the workforce (N=2,985).

Part B of **Figure 4** examines the extent to which working adults report learning new things as a part of their jobs. Though employees with bachelor's degrees typically have an advantage in opportunities to learn at work, yet again, this advantage is smallest among Millennials, the youngest cohort of working adults. Though 88 percent of these early-career workers with bachelor's degrees have jobs where they learn new things, the same is true for 84 percent of Millennials without college degrees. Among Baby Boomers, 97 percent of workers with bachelor's degrees regularly learn new things as part of their jobs compared to 82 percent of Baby Boomers without bachelor's degrees. Among workers from Generation X, 96 percent and 86 percent of workers with and without college degrees, respectively, have jobs where they regularly learn new things.

Further, for Millennials, advantages for college-educated workers have declined. From this perspective, workers across cohorts who have not yet completed a bachelor's degree as well as Millennials with college degrees would be motivated to become working learners as a strategy for getting ahead.



In the context of higher levels of educational attainment, general attitudinal trends suggest that **although Americans have less confidence in the educational system, their belief that getting ahead results from hard work remains strong.** Although workers without bachelor's degrees are more optimistic about equity in the educational system and the returns to hard work, **they have fewer opportunities to put their skills to work or to gain new skills at their jobs.**

Engagement with Working and Learning in the U.S. Workforce

The extent to which workers engage with various educational opportunities remains underexplored despite attention to working learners and their challenges.^[5] In 2005, the Adult Education component of the National Household Educational Study (NHES) asked a nationally representative cross-section of adults whether they had engaged with various types of education or learning within the prior year and thus offers insights regarding the participation among working learners across various pathways. These include:

- enrolling in a program at a college or university to earn an associate's, bachelor's, or graduate degree;
- enrolling in a program to earn a vocational or technical diploma after high school;
- course-taking for work-related reasons;
- course-taking for personal interest or development; and/or
- learning for personal interest through a range of informal methods (e.g., online, through books or magazines, by participating in clubs, or attending conventions).

NHES findings showed that 85 percent of working U.S. adults participated in some form of learning in the twelve months prior to the survey, with 54 percent having done so as working learners enrolled in formal learning, such as seeking a credential, a vocational diploma, or through coursework.

Table 1 shows engagement with various types of learning – both formal and informal – among working adults. Thirteen percent of workers age 18 to 65 had enrolled in a college or university to work toward a degree within the last year. By comparison, only two percent had participated in a vocational program, the least common type of working and learning. Working learners most commonly engaged with work-related coursework (37 percent) followed by coursework related to personal interests (22 percent). Finally, a majority of adults reported participating in informal learning activities online, through independent study, or joining groups with a shared interest.^[for a detailed review, see 14]

Table 1. Working Learner Participation in Education Types By Educational Attainment and Industry Group (%)

	Credential Enrollment	Vocational Enrollment	Work Related Course(s)	Personal Interest Course(s)	Informal Learning Outside of Work
All workers	12.9	2.2	36.6	22.1	73.1
Educational Attainment					
Less than a bachelor's degree	13.1	2.7	27.9	19.0	66.7
Bachelor's degree	12.6	1.0	55.9	29.0	82.7
Industry Group					
Agriculture	1.9	0.9	23.4	28.7	68.4
Mining, construction, manufacturing	5.0	1.9	26.0	17.1	71.0
Transportation, wholesale, retail	16.2	2.4	21.2	20.3	67.9
Finance, services, information	12.8	2.5	37.7	24.8	73.8
Health, education, public administration	17.3	1.9	57.1	24.1	78.8

Source: National Household Education Study, 2005. Weighted estimates for working adults 18-65 (N=5,517).

Table 1 also considers whether learning while working is more common among those with or without bachelor's degrees and among those from various industries. Overall, bachelor's degree holders were more likely to have taken work-related courses (56 percent) compared to workers without bachelor's degrees (28 percent). Similarly, college-educated workers were also more likely to have taken courses related to their personal interests and development as well as to pursue informal learning outside of work. Certainly, college-educated workers are more likely to have the means to pay for coursework and educational activities or to hold jobs with requirements for continuing education. At the same time, however, having completed a college education may give graduates institutional knowledge of further education opportunities and cultivate a broader orientation towards lifelong learning.

Further, incentives to engage with ongoing education may vary across industries. The final section of **Table 1** reports the rates of participation of working learners among various industry groups. Workers from the health, education, and public administration industries (17 percent) as well as transportation, wholesale, and retail

(16 percent) stand out as more likely to pursue additional credentials whereas workers from agriculture (two percent) and mining, construction, and manufacturing (five percent) are less likely to do so. Taking courses related to one's job is most common among those employed in health, education, and public administration (57 percent) and to a lesser extent, workers from the finance, service, and information industries (38 percent). Yet, in each of the remaining industry groups, at least a fifth of incumbents had taken a course related to their work within the last year.

In terms of learning related to personal interests, agricultural workers were the most likely to take formal courses related to their personal interests (29 percent) whereas workers from the mining, construction, and manufacturing industries were the least likely to do so (17 percent). Finally, informal learning was higher among health, education, and public administration workers, 79 percent had put time and effort toward informal learning compared with 73 percent of workers nationally. Nevertheless, across industries, U.S. workers are actively engaged with education related to their work and outside interests.

Employer Support for Working Learners

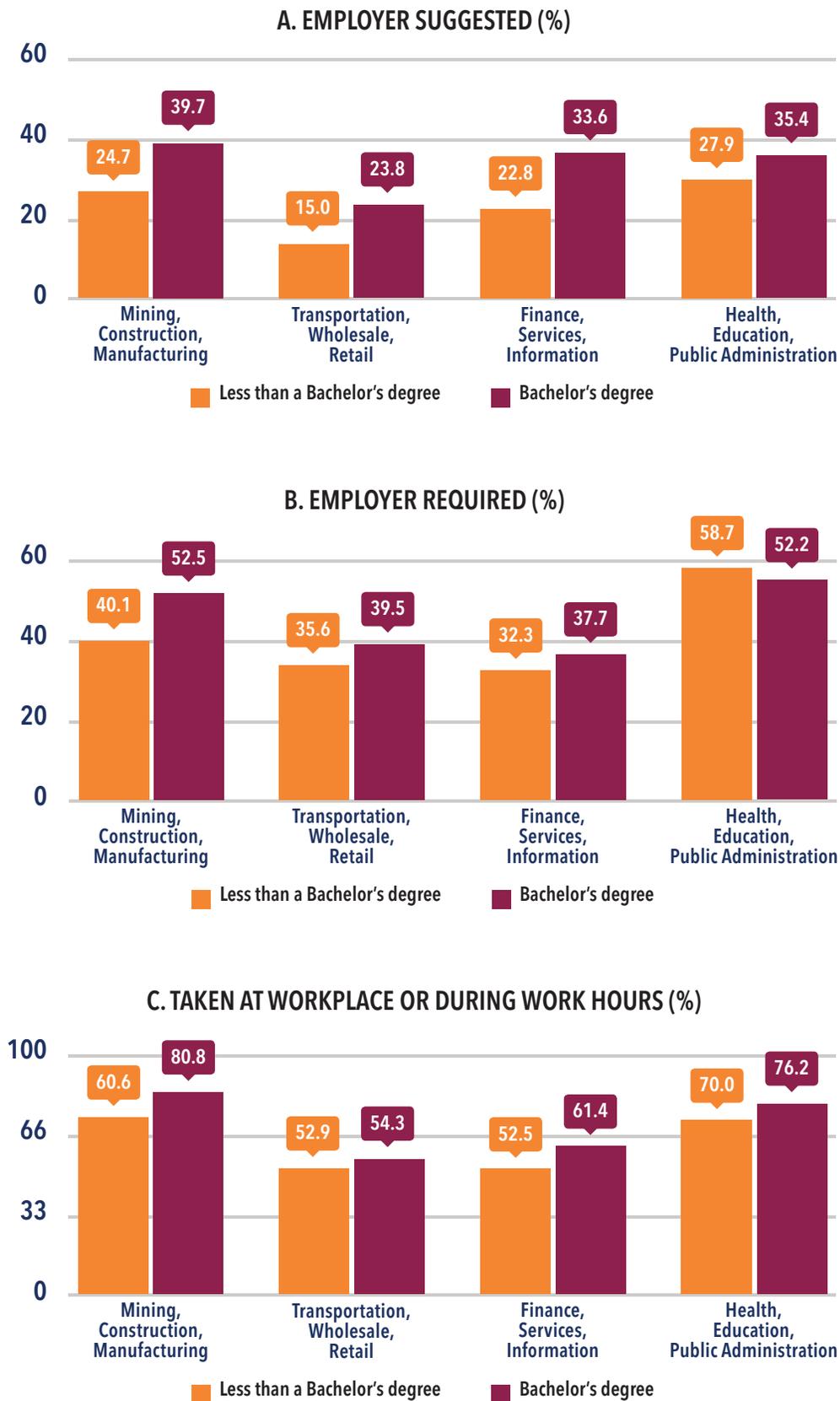
Because industries likely vary in their demands and support for ongoing training, Figure 5 uses NHES data to take a closer look at employer support for pursuing formal learning related to work across industry groups. The four parts of the figure represent four different ways that employers can support their working learners: (A) by suggesting their employees enroll; (B) by requiring it; (C) by offering courses at the workplace or during work hours; and (D) by paying for their employees' time, tuition, or materials related to enrollment. Further, Figure 5 differentiates between working learners without a bachelor's degree (lighter bars) from those who previously had earned a bachelor's degree (darker bars).

A clear pattern emerges in the prevalence of the various types of employer support reported by working learners. To illustrate, the least common form of employer support was employers' suggesting their employees enroll (Part A) and the most common form of employer support was funding for tuition, materials, or paying working learners' wages while learning (Part D). Falling between these extremes, education requirements (Part B) were less common for working learners than programs offered at the workplace or during work hours (Part C). Rather than suggesting that employers are more likely to foot the bill for their employees' continuing education than to suggest it, the best way to make sense of these data is to infer which types of support activate employees to become working learners.



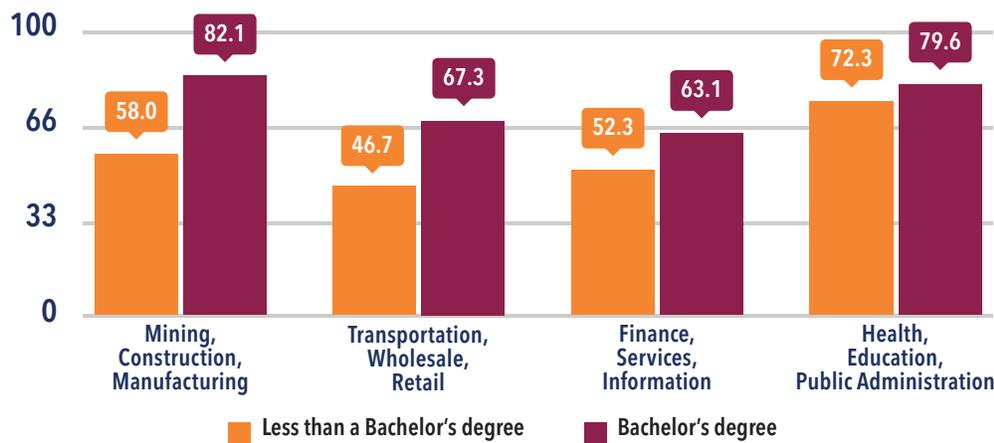
Though suggesting employees enroll may be encouraging, what actually spurs enrollment is **tangible, instrumental support in the form of funding and to a lesser extent, the opportunity to pursue this education at work.**

Figure 5. Employer Support for Working and Learning by Industry and Educational Attainment



Source: National Household Education Study, 2005. Weighted estimates for working adults 18-65 (N=3,067).

D. EMPLOYER PAID TUITION, MATERIALS, OR FOR EMPLOYEE’S TIME WHILE LEARNING (%)



Source: National Household Education Study, 2005. Weighted estimates for working adults 18-65 (N=3,067).

Next, differences in employers’ support for working and learning between industry groups and based on employees’ educational attainment are observed in **Figure 5** as well. In general, working learners in mining, construction, and manufacturing as well as those in health, education, and public administration are more likely to report employer support than peers in other industries. Note that agriculture is absent from these figures due to sparse data.



In almost all industries and by all measures, working learners with bachelor’s degrees are more likely to have employers who support their learning in some capacity than working learners without college degrees. In fact, the only comparison in which non-college graduates enjoy a boost from their employers over bachelor’s holders is among workers in health, education, and public administration who are more likely to report that their employer required additional education.

Overwhelmingly then, employer support for working learners favors bachelor’s degree holders over those without college degrees. This suggests that employers are investing their resources in employees who already have greater levels of education and skills, while others are seemingly being left behind. Instead, working learners without bachelor’s degrees who are attempting to up-skill will likely do so with less support from their employers. From the employer’s perspective, investing in the continuing education of incumbents – and the completion of college degrees for those with prior college credit – is a promising way to cultivate the internal talent pipelines necessary to remain competitive in an uncertain economy.^[7,15]

Returns to Working and Learning

Opportunities and obstacles for working learners are gaining increasing attention in conversations around education and equity.^[5,7] However, the financial returns to working and learning remain largely unexamined even though individuals are likely motivated by the potential to increase their earning power. Consequently, the final piece of the current study examines the returns to working and learning among working adults in the Survey of Income and Program Participation (SIPP).

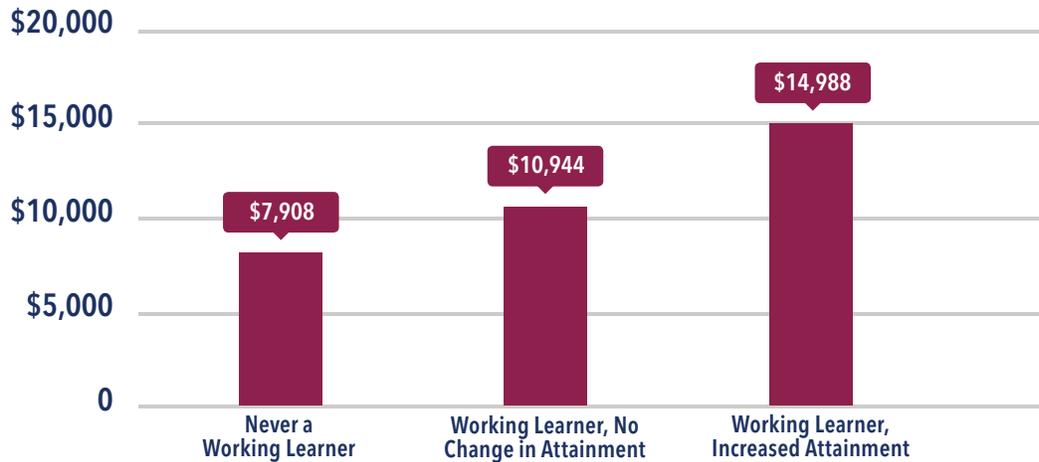
Often, studies generalize the returns to higher education by comparing the average earnings of those with a particular credential (e.g. a bachelor's degree) to those with an alternative (e.g. an associate's degree).^[e.g. 4,8] However, the extent to which working learners across age groups and industries would themselves see these returns in the short-term is an empirical question. Longitudinal data that follow individuals over a period of time as they pursue additional education allows these returns to be objectively measured.

As part of SIPP, a nationally representative sample of respondents reported whether they completed additional education while working during the five-year duration of the study. **Figure 6** reports the median change in annual earnings observed over this five-year period for each of three groups: workers who were never working learners (lightest bar); working learners who did not increase their educational attainment (medium bar); and those who as working learners, increased their educational attainment (darkest bar). Overall, the median increase in annual earnings for non-working learners was nearly \$8,000. Put differently, a working adult – who was not a working learner and who fell in the 50th percentile of growth in annual earnings – would be making \$8,000 more each year at the end of the five-year study compared to at the beginning. By contrast, individuals who were working learners but did not increase their education attainment saw a median annual earnings increase of nearly \$11,000 over the same period. Finally, working learners who did succeed in increasing their educational attainment – for example, by completing their high school, associate's, or bachelor's degree – had a median earnings increase of almost \$15,000 at the end of year five compared to year one. Taken together, though all workers' earnings typically increase over time, working learners' salaries increase at a faster rate, even when they do not increase their educational attainment. Though working learners are likely rewarded for added education and skills regardless of an earned credential, it is also possible that workers who attempt to balance paid work and education have greater initiative and motivation, clearer career goals, or richer social ties, all of which can contribute to higher earnings.



Though choosing to become a working learner surely entails a financial burden, it also brings with it considerable returns in annual earnings for most working learners, and particularly for those who complete postsecondary degrees.

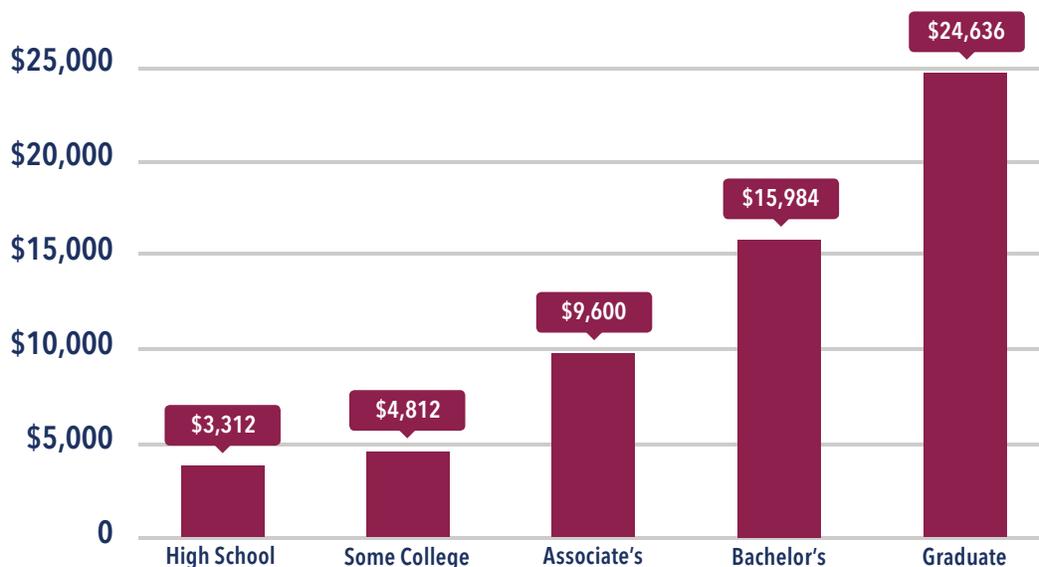
Figure 6. Median Increase in Annual Earnings Over Five Years by Working Learner Status and Change in Educational Attainment



Source: Survey of Income and Program Participation, 2008-2013. Weighted estimates for working adults 18-65 (N=313,590).

Finally, in an era of serious – and warranted – concern over the affordability of higher education, it is important for working learners to consider where and how to invest their time, energy, and earnings, and to have access to concrete estimates of the returns to these programs. **Figure 7** considers the median increase in earnings for working learners by the level of education they attained during the SIPP study. Working learners who completed a high school education (leftmost bar) had a median increase in income of \$3,312 per year whereas the median increase for those enrolling in college or a vocational program for the first time increased their annual earnings by nearly \$5,000 (second bar from the left). By contrast, SIPP respondents who earned associate’s and bachelor’s degrees (center and second rightmost bars) increased their earnings by \$9,600 and nearly \$16,000, respectively. Finally, graduate degrees carried with them a median increase of almost \$25,000 in yearly earnings. Though sample size precludes a more detailed analysis, preliminary results suggest that these returns are similar for older and younger working learners alike.

Figure 7. Median Increase in Annual Earnings Over Five Years for Working Learners by Educational Attainment



Source: Survey of Income and Program Participation, 2008-2013. Weighted estimates for working learners 18-65 with increased educational attainment (N=24,734).

Implications

Taken together, these findings present a set of implications to inform policy and practice.

- ▶ The gold standard for success in the education system – a college degree – is **necessary but not sufficient** for staying competitive in a changing economy.
- ▶ College-educated workers face a **considerable but declining premium in opportunities** to use their skills and to gain new skills at work; therefore, Millennial workers with and without bachelor's degrees alike are **incentivized to become working learners** to get ahead.
- ▶ Tangible support for working and learning from employers in the form of reimbursement for tuition, materials, or employees' time, and to a lesser extent, time and space to gain additional skills, are **powerful tools to facilitate working and learning** among employees.
- ▶ Investing in opportunities for working learners – and especially those who have not yet completed college degrees – is a **valuable way to cultivate internal talent pipelines, employee satisfaction, and to level the playing field** between workers of different education backgrounds.
- ▶ When choosing education and career pathways, **opportunities to continue learning in the future ought to be a consideration**. The typical focus on salaries and current demand across industries **may overlook a key part of remaining competitive** in the long run.
- ▶ Opportunities to learn on the job or with employer support will be **an increasingly important consideration for employees**, particularly Millennials.
- ▶ K-12 and higher education alike should **cultivate skills for lifelong learning**. Though a higher education still offers an important advantage, **merely completing credentials underprepares students for an evolving economy**.
- ▶ For the vast majority of employees, **becoming a working learner at any age carries with it a substantial increase in earnings**, even when a credential is not completed.
- ▶ Greater awareness of the returns to working and learning **may offset anxieties about the costs of further education**.

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Data and Methods

Data for this report come from three publicly available and nationally representative datasets: (1) The General Social Survey (GSS) from the National Opinion Research Center (1972-2016), (2) the adult education module of the National Household Education Survey (NHES) from the National Center for Education Statistics (2005), and (3) the Survey of Income and Program Participation (SIPP) from the U.S. Census Bureau (2008-2013). These studies are featured in the ACT Catalog of Working Learner Related Datasets at actfdn.org because of their capacity to shed light on working learners and their outcomes.

Throughout the report, data are filtered to retain adults in the workforce between the ages of 18-65. Where appropriate, sub-analyses further restrict the analytic sample, for example, to include only those adults who were working learners. These instances are noted in the text. Finally, throughout the analyses, the appropriate weights for each dataset are used to adjust statistical estimates to reflect the characteristics of the population as a whole. These weight variables are WTSSALL in the General Social Survey, FAWT in the National Household Education Study, and LGTPN5WT in the Survey of Income and Program Participation.

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July 2017

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