

Educational Attainment and Internet Usage in Construction and Other Industries

Educational attainment of employees in construction is lower than in most other industries except for agriculture (chart 30a). In 2010, about 40% of construction workers had some post-secondary education, in contrast with 62% of the total workforce.¹ These estimates are based on the Current Population Survey (CPS; *see* page 10), in which respondents are asked about the highest level of education they have reached, coding each level of formal education attained. In addition to formal education, most construction knowledge is learned on the job or from special courses, licensing, or certification requirements and apprenticeships. Such information is not collected by the CPS but is available in other data sources (*see* page 31).

According to the CPS data, *production* (blue-collar, *see* Glossary) workers have lower educational attainment than the overall workforce, and the level of formal education among production workers within the construction industry is even lower than production workers in other industries. In 2010, 24% of construction production workers had less than a high school diploma, compared with 17% of production workers in all other industries combined. Traditionally, there have been no formal educational requirements for most production occupations; however, more and more construction trades now require a high school diploma or its equivalent.² Workers are often encouraged or required to attend an apprenticeship program, trade or vocational school, association training class, or community college to further their trade-related training.

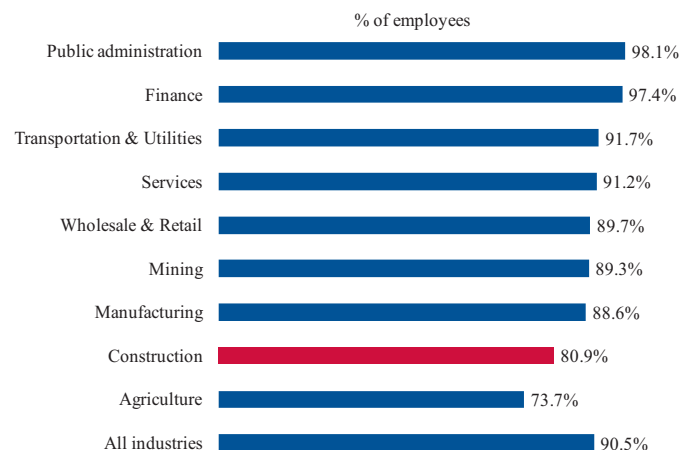
In construction, union members (*see* page 13) are much more likely to have a higher educational attainment than non-union workers. In 2010, nearly one in three non-union production workers lacked a high school diploma or equivalent compared to only one in 10 union workers (chart 30b). Similarly, a larger portion of union members had post-secondary education (41%) – including some college or an associate’s degree – when compared to non-union workers (25%).

Educational attainment also differs among demographic groups. Hispanic construction workers, who are more likely to be foreign-born (*see* pages 16 and 17) are much less likely to have a high school diploma or post-secondary education than non-Hispanic workers (chart 30c). Women construction workers are more likely to have higher educational attainment than men. There is no significant difference in educational attainment between races in construction.

With the rapid adoption of information technology, more and more people have computers and access to the Internet. In 2010, about 67% of construction workers used the Internet at home, and 38% used it at their job site (chart 30d). Although a lower proportion of construction workers accessed the Internet when compared to all workers combined, it has significantly increased in recent years. In 2003, Internet access for construction workers was 39% at home and 20% at work.³ In 2010, out of the 33% of construction workers who had no Internet access at home, 38% reported they did not need it or were not interested, 31% complained the costs were too high, and 16% said they had no computer or their current computer was inadequate.⁴

In recent years, more and more handheld devices (e.g., tablets, smartphones) have become available. In 2010, about 21% of construction workers reported they used handheld devices at home, compared to 25% of workers in all industries (chart 30e). Furthermore, union members in construction were more likely to have a computer or handheld device than their non-union counterparts. In 2010, about 94% of union members had a computer or handheld device at home, compared to 79% of non-union workers. The trend in access to handheld devices and the Internet among construction workers will present new opportunities for communicating with and providing information to the construction workforce.

30a. Percentage of employees who have a high school diploma or higher education, by industry, 2010 (All employment)



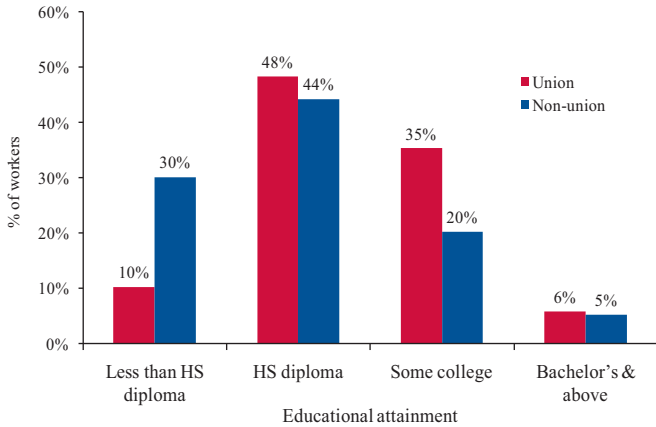
1. The numbers used in the text (except for computer use) are from the U.S. Bureau of Labor Statistics, 2010 Current Population Survey. Calculations by CPWR Data Center.

2. U.S. Bureau of Labor Statistics. *Occupational Outlook Handbook, 2012-13 Edition*. <http://www.bls.gov/ooh/construction-and-extraction/home.htm> (Accessed May 2012).

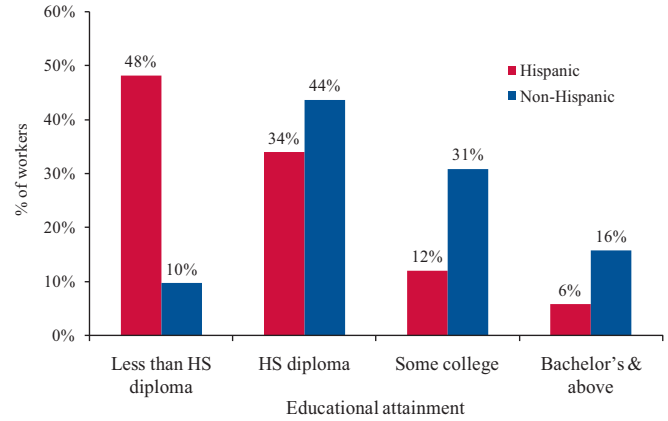
3. CPWR - The Center for Construction Research and Training. *The Construction Chart Book*, fourth edition (chart 28d).

4. The numbers for computer use are from the U.S. Bureau of Labor Statistics, 2010 School Enrollment and Internet Use Supplement to the Current Population Survey. Calculations by CPWR Data Center.

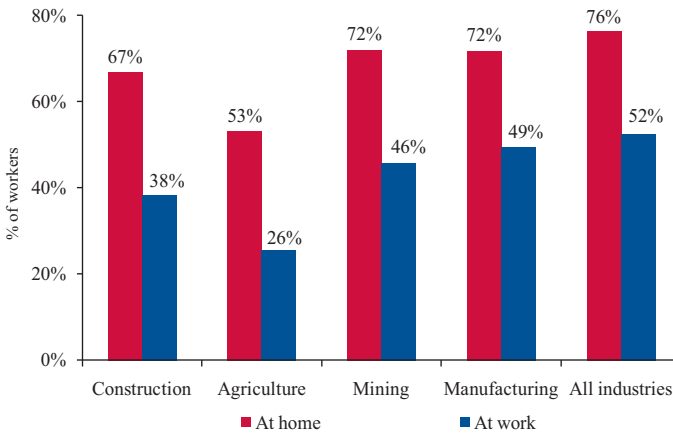
30b. Distribution of educational attainment among construction workers, by union status, 2010 (Production workers)



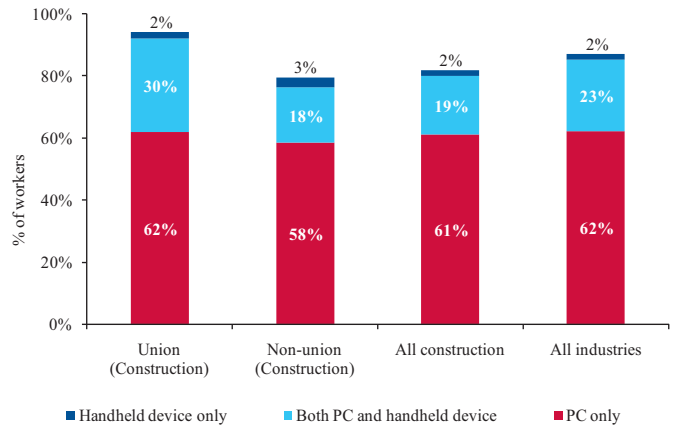
30c. Distribution of educational attainment among construction workers, by Hispanic ethnicity, 2010 (All employment)



30d. Percentage of workers with access to the Internet, by industry, 2010 (All employment)



30e. Household computer use in construction and all industries, by type of device, 2010



Note: Chart 30b - Production workers are all workers, except managerial, professional, and administrative support staff, and include the self-employed. Totals may not add to 100% due to rounding.
 Chart 30c - Totals may not add to 100% due to rounding.
 Charts 30d and 30e - Computer access includes all individuals living in households in which the respondents answered "yes" to the question, "Do you or any member of this household own or use a personal computer, a handheld computer, or a smartphone?" Internet access was for respondents using the Internet at home or in the workplace.

Source: Charts 30a-30c - U.S. Bureau of Labor Statistics. 2010 Current Population Survey. Calculations by CPWR Data Center.
 Charts 30d and 30e - U.S. Bureau of Labor Statistics. 2010 School Enrollment and Internet Use Supplement to the Current Population Survey. Calculations by CPWR Data Center.