

SIDEBAR

Certifications and Licenses

Community colleges and certification and license programs often serve as a starting point or as a supplement to traditional 4-year degrees in science, technology, engineering, and mathematics (STEM)-focused workforce development (NASEM 2016). Certifications and licenses generally are associated with an occupation, technology, or industry, and recognize professionals who meet established knowledge, skill, and competency standards necessary to perform a specific job (Finamore and Foley 2017). Certifications are issued by a nongovernmental body, whereas licenses are awarded by a government agency and convey legal authority to work in an occupation (BLS 2019). Certifications and licenses are obtained at all educational levels. However, they are more prevalent among those with a bachelor's degree and above. In 2018, among all workers 25 years or older, 8% of those with no high school diploma and 15% of those with a high school diploma (no college) held a certification or license; in comparison, 26% of those with some college or an associate's degree and 36% of those with a bachelor's degree or above held a certification or license (BLS *CPS 2018: Table 51*). The unemployment rate for individuals with a certification or license was lower, ranging from 1% for those at the bachelor's degree or higher to 3% for those with less than a high school diploma compared to 3% and 6%, respectively, for those without a certification or license (BLS *CPS 2018: Table 50*). College-educated workers in S&E occupations (24%) were less likely to hold a certification or license than those in S&E-related occupations (77%) or non-S&E occupations (38%). The specific occupations in which workers with a bachelor's degree and higher had the highest certification or license prevalence rates were legal occupations (94%), science and engineering precollege teachers (91%), health occupations (89%), and other education-related occupations (84%) (Finamore and Foley 2017).

For information on community colleges, including 2-year degree awards, and minority-serving institutions (MSIs), see *Indicators 2020* report "Higher Education in Science and Engineering." Also, see NASEM 2019 for additional information on MSIs and their role in preparing a STEM-ready workforce.