The U.S. science, technology, engineering, and mathematics (STEM) workforce fuels innovation and provides important contributions to the nation. This workforce is comprised of a robust and widely diverse group of individuals that is constantly growing and evolving. The National Center for Science and Engineering Statistics (NCSES) has a rigorous process for tracking and interpreting workforce data, and the Center publishes findings several times throughout the year.

To provide the most accurate depiction of this group, NCSES in partnership with the National Science Board, has updated its traditional STEM workforce definition to include individuals in STEM occupations with less than a bachelor’s degree. The types of STEM occupations have also expanded to include those that historically did not require STEM skills and expertise, owing to technological advancements in many areas of our economy.

The STEM workforce is made up of individuals at all education levels who work in science and engineering (S&E), S&E-related, and middle-skill occupations.

NEW STEM Workforce Definition

S&E Occupations
As a subset of STEM occupations, S&E occupations typically require a bachelor’s degree for entry and are broadly comprised of workers who are
- Computer and mathematical scientists
- Life scientists
- Physical scientists
- Social scientists
- Engineers

S&E-Related Occupations
S&E-related occupations require STEM skills and expertise, but they do not fall into the five main S&E categories. The main occupational categories and positions that make up this group include
- Health
- S&E managers
- S&E precollege teachers
- Technologists and technicians

Middle-Skill Occupations
Middle-skill occupations require significant STEM skills and expertise but do not typically require a bachelor’s degree for entry. These positions are primarily in the areas of
- Construction trades
- Installation
- Maintenance
- Production
The skilled technical workforce (STW) is comprised of workers in S&E, S&E-related, and middle-skill occupations that require a high-level of knowledge in a technical domain but do not require a bachelor’s degree. Popular occupations include computer support specialists, industrial engineers, including health and safety professionals, licensed nurses, pharmacy technicians, carpenters, electricians, and industrial production managers.

Within this expanded STEM workforce framework, 55% of STEM workers do not have a bachelor’s degree and most of these workers work in middle-skill and S&E-related occupations.

The STEM workforce includes individuals who have attained a bachelor’s degree or higher and who work in an S&E, S&E-related, or middle-skill occupation. Among these individuals, the most popular occupations include engineers, software developers, physicians, registered nurses, farmers, ranchers, and other agricultural managers.

These fast facts are representative of the latest data on the STEM workforce, as reported by NCSES in the National Science Board’s report, *The STEM Labor Force of Today: Scientists, Engineers, and Skilled Technical Workers*. This report provides information on workers with a bachelor’s degree or higher in S&E and S&E-related occupations, while also offering insight on middle-skill occupations and the STW when possible.

**Fast Facts**

- In 2019, there were approximately 36 million STEM workers, including the STW, representing 23% of the total U.S. workforce.
- STEM workers had higher median earnings ($55,000) than non-STEM workers ($33,000) in 2019.
- At all education levels, the STEM labor force experienced lower unemployment rates compared with their non-STEM counterparts. Unemployment rates declined for all broadly defined occupational groups by 2019, but they were the lowest for the STEM labor force, at 2.2%.

**Anticipated STW Data**

Forecasted for winter 2023, supplementary data on the STW will be made available through the new National Training, Education, and Workforce Survey (NTEWS). The NTEWS seeks to gather insights on the education, training, and career pathways of the STW while exploring how education, work credentials, and work experience programs serve U.S. workers.