

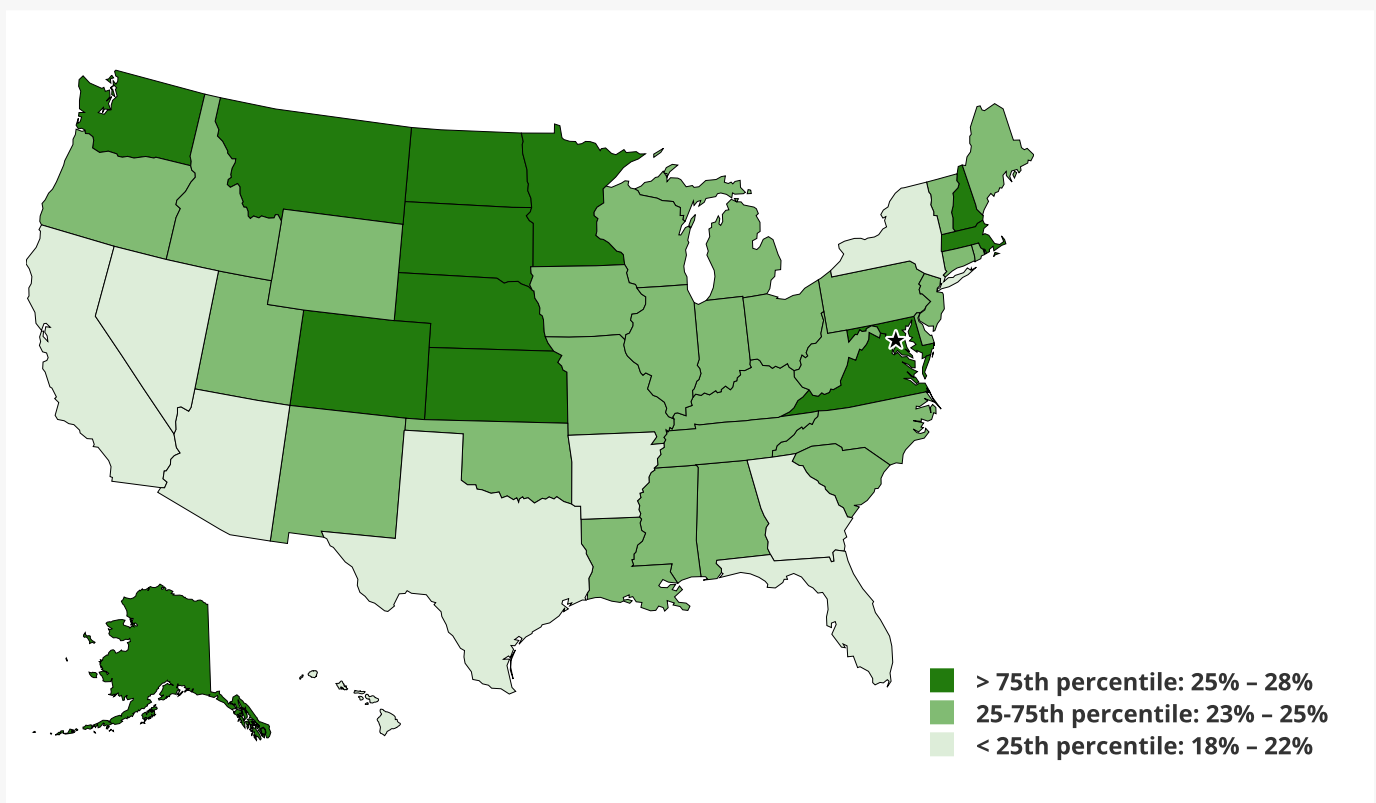
SIDEBAR

Where the U.S. STEM Workers Are: 2019

A state's capacity to support innovative activity can be measured by the extent to which it has a skilled workforce with the expertise required to conduct this type of work. This sidebar analyzes the percentage of the workforce in each of the 50 states that is in science, technology, engineering, and mathematics (STEM) occupations using data from the U.S. Census Bureau (2020a) 2019 American Community Survey (ACS).

In 2019, about 18 states, spread throughout all four regions defined by the U.S. Census Bureau, had about one-quarter of their workforce in STEM occupations.* Many of these states were in the Midwest, but several states outside the Midwest also had one-quarter of STEM workers (Figure LBR-C).

Figure LBR-C

Employment in STEM workforce, by state: 2019

STEM = science, technology, engineering, and mathematics.

Note(s):

Data include workers ages 16–75 and exclude those in military occupations or currently enrolled in primary or secondary school.

Source(s):

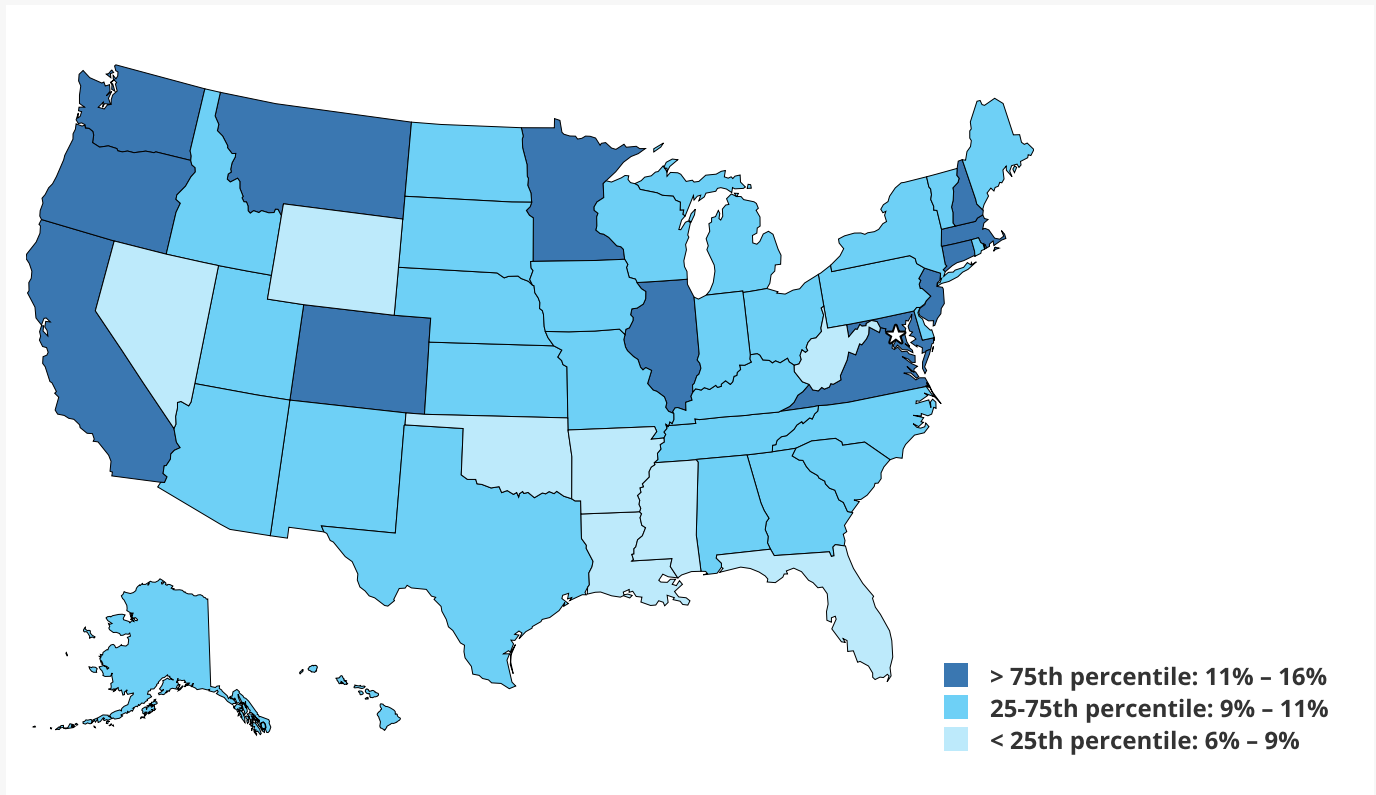
U.S. Census Bureau, American Community Survey (ACS), 2019, Public Use Microdata Sample (PUMS), data as of 25 October 2020.

Science and Engineering Indicators

States on the coasts and one state in the Midwest tended to have high proportions of workers with a bachelor's degree or higher in STEM relative to other states (Figure LBR-D). The District of Columbia, Massachusetts, Maryland, and Virginia had about 13% or more of these workers, with the highest proportion in the District of Columbia (16%). States in the Western region (Washington and Colorado) and Minnesota also had 13% of workers in STEM occupations with a bachelor's degree or higher. Nevada had the lowest percentage of STEM workers with a bachelor's degree or higher (6%).

Figure LBR-D

Employment of workers with a bachelor's degree or higher in STEM occupations, by state: 2019



STEM = science, technology, engineering, and mathematics.

Note(s):

Data include workers ages 16–75 and exclude those in military occupations or currently enrolled in primary or secondary school.

Source(s):

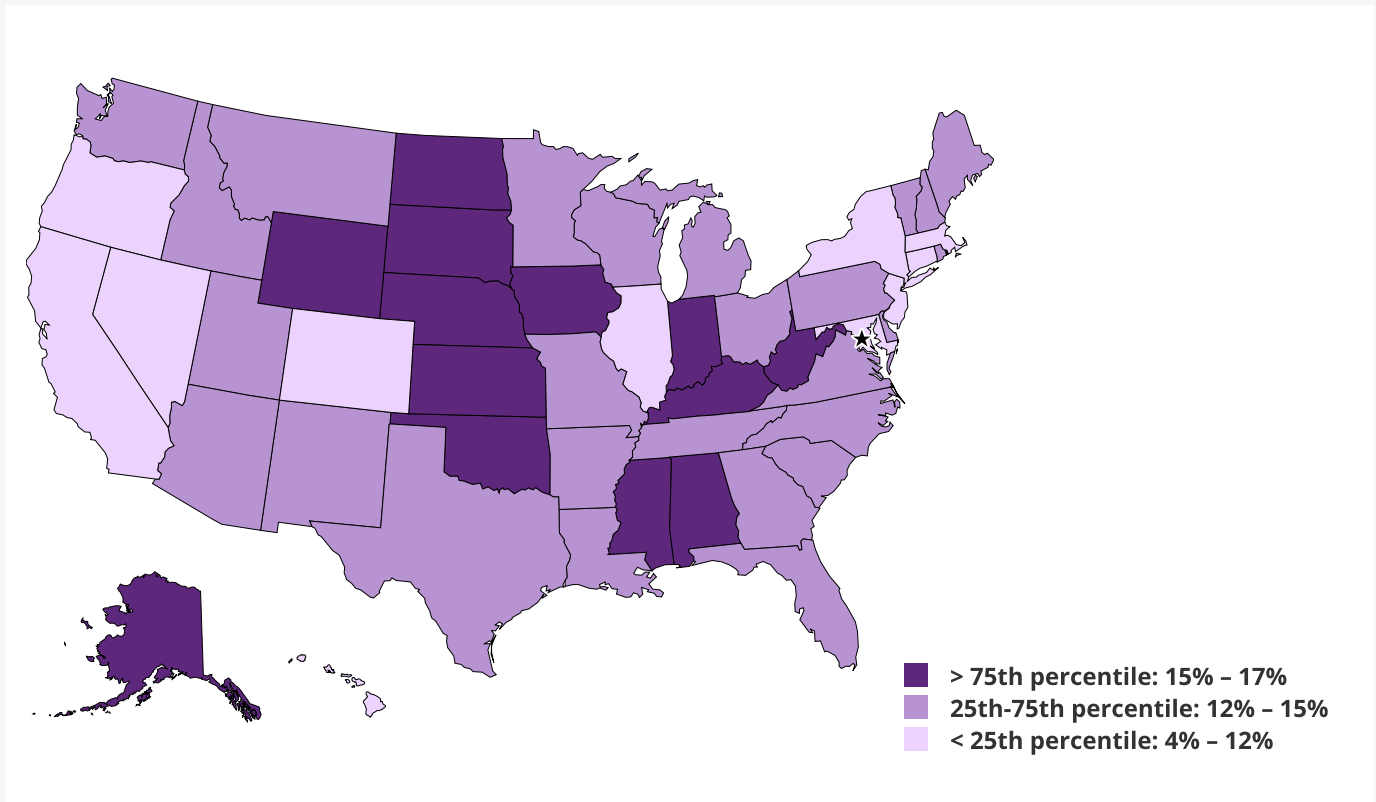
U.S. Census Bureau, American Community Survey (ACS), 2019, Public Use Microdata Sample (PUMS), data as of 25 October 2020.

Science and Engineering Indicators

While relatively high concentrations of STEM workers with a bachelor's degree or higher occurred in the coastal states, Southern and Midwest states had relatively high concentrations of STEM workers without a bachelor's degree—that is, the skilled technical workforce (STW). The percentage of STW ranged from about 4% to 17% by state overall. The bulk of the states with about 15% or more of their workers in the STW were in the Southern and Midwestern states (Figure LBR-E).

Figure LBR-E

Employment of STEM workers without a bachelor's degree (STW), by state: 2019



STEM = science, technology, engineering, and mathematics; STW = skilled technical workforce.

Note(s):

Data include workers ages 16–75 and exclude those in military occupations or currently enrolled in primary or secondary school. The STW comprises STEM workers without a bachelor's degree.

Source(s):

U.S. Census Bureau, American Community Survey (ACS), 2019, Public Use Microdata Sample (PUMS), data as of 25 October 2020.

Science and Engineering Indicators

The concentration of STEM workers across states varies by educational attainment. Those STEM workers with a bachelor's degree or higher tend to work in S&E or S&E-related occupations (Figure LBR-2) and are more concentrated in coastal states with high R&D intensity (see **Indicators State Data Tool**). Workers in the STW, who primarily apply their technical expertise in health care, production, construction and extraction, and installation, maintenance, and repair occupations, make up greater proportions of the workforce in states in the Midwest and Southern regions compared to other U.S. states.

* While the analyses presented in the text reflect statistically significant differences at the 90% confidence level or higher, not all of the percentages shown in the maps are statistically significantly different from each other.