

Aircraft Mechanics

Financial Managers

Science is US

Cost Estimators

Natural Sciences Managers

Architects

Logisticians

Dentists

Electricians

Science at Work

The People and Industries

Powering America's Prosperity.

Accountants

Nuclear Technicians

Aerospace Engineers

Agricultural Technicians

Statisticians

Math Teachers

Morticians

Software Developers

Chemists

Science is US

Science is US is a foundation-supported initiative directed by the American Association for the Advancement of Science (AAAS). It works to shift perceptions of the STEMM workforce and advocates for evidence-based decision making in public policy.



The American Association for the Advancement of Science is one of the world's largest general scientific societies and publisher of the journal *Science*, as well as *Science Translational Medicine*; *Science Signaling*; a digital, open-access journal, *Science Advances*; *Science Immunology*; and *Science Robotics*. AAAS was founded in 1848 and includes more than 250 affiliated societies and academies of science, serving 10 million individuals. The nonprofit AAAS is open to all and fulfills its mission to “advance science and serve society” through initiatives in science policy, international programs, science education, public engagement and more. For additional information about AAAS, visit www.aaas.org

Science at Work

The People and Industries
Powering America's Prosperity

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Science at Work

The People and Industries Powering America's Prosperity.

A State-by-State Analysis of the U.S. STEMM
Workforce and Its Economic Impact

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Executive Summary

The science, technology, engineering, mathematics and medicine (STEMM) workforce is the backbone of the U.S. economy: More than 73 million Americans are employed in STEMM professions; they represent 34% of the U.S. workforce; and they contribute over \$10.87 trillion—about 40%—to the nation’s gross domestic product annually.

Occupations in STEMM generate substantial economic ripple effects. STEMM professionals produce more in tax revenue than their non-STEMM peers and earn higher incomes. They are in highly sought, in-demand fields which offer fulfilling careers at all education levels. In fact, more than half of all STEMM professionals do not have a bachelor’s degree.

This report provides a data-driven analysis of how STEMM professionals and their combined economic impact contribute to economic prosperity nationally and at the state level.

Despite the robust contributions of STEMM fields, the U.S. faces a critical skills gap threatening innovation, as employer demand outpaces the supply of qualified STEMM professionals. This gap, exacerbated by economic barriers, misalignment of

educational programs and misunderstandings about the accessibility of STEMM occupations, could slow innovation and economic growth. With an increase in demand for skilled professionals, investments in STEMM education and workforce development are essential to sustaining the U.S. economic advantage.

Leveraging our nation’s STEMM prowess is of paramount importance for bolstering American economic competitiveness. By continuing to champion STEMM, we can ensure a prosperous future with inclusive economic opportunities that can benefit all Americans. Embracing and investing in new science and engineering pathways makes good economic sense, and, moreover, can produce tremendous benefits across racial, ethnic and gender lines in communities throughout the nation.

Key Findings

STEMM-driven industries generate over \$39.5 Trillion

in total sales output, supporting 83.5% of the overall U.S. economy.

73.6 M

Americans work in STEMM-related jobs.

(34.1% of the workforce)

Indirect and induced economic effects

amplify STEMM's impact

beyond core industries.

STEMM accounts for \$10.87 Trillion

in direct GDP contribution.
(39.2% of U.S. GDP)

STEMM jobs pay higher wages

than non-STEMM careers, increasing household incomes and consumer spending.

A majority (53%) of STEMM professionals do not have a bachelor's degree.

Science at Work

The Economic Impact of the STEMM Workforce

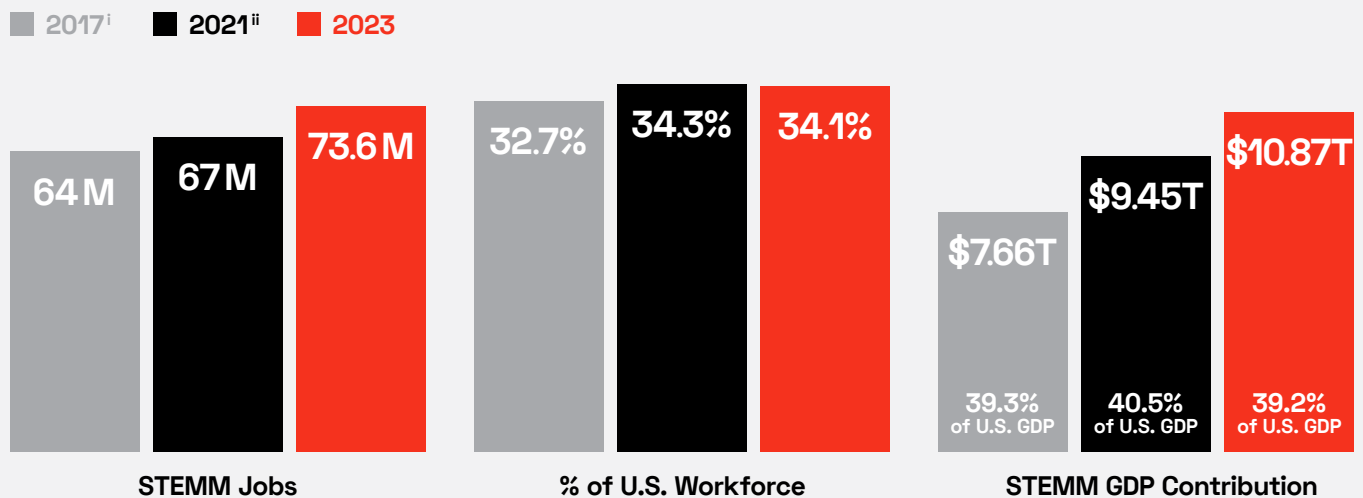
Science and engineering are foundational to America's economic prosperity, underpinning the very fabric of daily life, innovation, and growth across every sector and region of the nation. Far from being confined to the traditional imagery of lab coats or advanced robotics, STEMM encompasses a wider, robust workforce critical to America's current and future economic vitality.

The STEMM workforce directly employs 73.6 million Americans—constituting over a third (34.1%) of the total U.S. workforce (see figure 1). This expansive presence underscores that STEMM is not a niche sector. Rather, it is integral to the majority of industries that power the U.S. economy. From healthcare professionals delivering essential medical services to

advanced manufacturing specialists driving innovation in robotics and infrastructure experts safeguarding our environmental resilience, the role of STEMM professionals is both far-reaching and indispensable.

STEMM contributes significantly to the U.S. economy, accounting for 39.2% (\$10.87 trillion) of direct GDP and \$2.3 trillion in federal, state, and local taxes annually (see figure 2). Even more notably, STEMM-driven industries create ripple effects that propel a cumulative sales output of over \$39.5 trillion, sustaining approximately 83.5% of the total economy. This illustrates how critical STEMM is to America's economic wellbeing, proving that science and engineering are not merely fields for a select few—they are fundamentally everyone's concern.

Figure 1
The Direct Impact of STEMM on the U.S. Economy Continues to Grow



STEMM is a Driving Force of the U.S. Economy

- STEMM jobs make up 34.1% of U.S. employment.
- STEMM contributes \$10.87 trillion (39.2% of GDP) directly.
- STEMM industries directly generate \$1.62 trillion in federal tax revenues annually and a total of \$3.09 trillion when combined with indirect and induced federal tax revenues.

According to the U.S. Bureau of Labor Statistics (BLS), the outlook for careers in STEMM is greater than any other industry sector between 2023 and 2033 with demand for STEMM labor “projected to increase by 10.5%, more than double the 4.2% growth rate BLS projects for total wage and salary employment,” underscoring the increasing importance of STEMM fields within the broader labor market^{iv}. For every one STEMM job, multiple additional jobs are created across supporting industries such as education, healthcare, manufacturing and finance.

Economic advantages of pursuing careers in STEMM are also evident through wage comparisons. Occupations in STEMM produce higher incomes, with a median annual wage of \$94,003, compared to \$52,354 for non-STEMM jobs.

Despite the clear economic data affirming the central role of STEMM, discussions around science and engineering have become increasingly polarized. Policymakers, educators, and industry leaders have a shared responsibility to foster STEMM education and workforce development. To politicize science is to risk the foundation upon which our collective economic and societal well-being rests.

Figure 2
Direct Tax Revenues

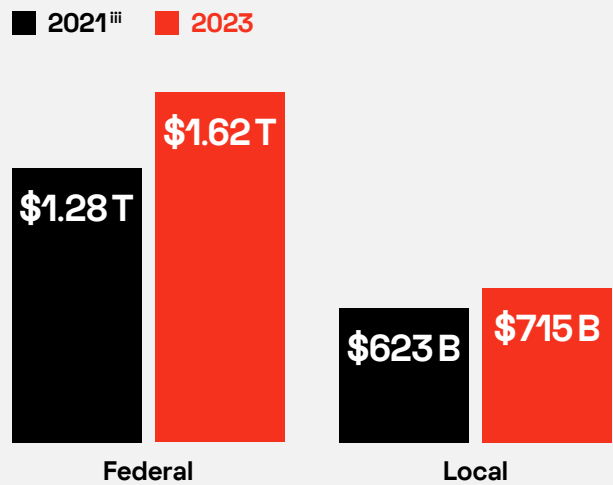
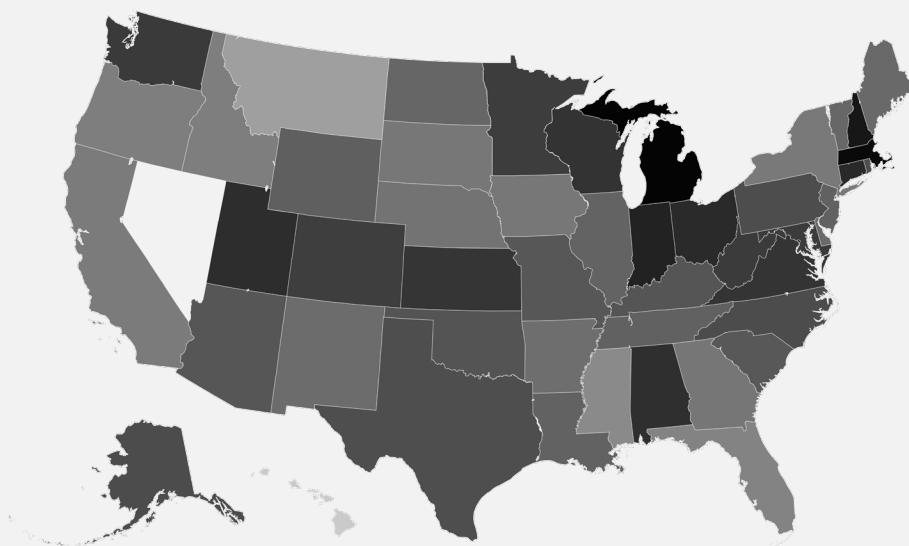
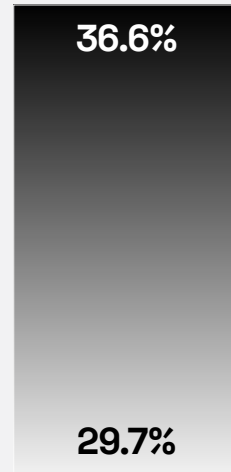


Figure 3
Direct STEMM Jobs by State



% of STEMM Jobs



Defining the STEM Workforce

The “Hidden” Jobs in STEM

The STEM workforce is far broader and more comprehensive than is commonly perceived. Much of the nation’s success is owed to individuals with varying levels of education working across industries ranging from biomedical research to mining, each doing STEM work every day. It is these jobs—and the people who do this work—that drive the country’s prosperity. The top industry sectors most reliant on STEM professionals include electric power generation and equipment manufacturing.

For an occupation to be designated as STEM, we look at the daily tasks involved, not just the economic sector it resides in. This comprehensive definition ensures that STEM’s full economic footprint is accurately measured. It also broadens and deepens the universe of STEM workers to include many practical workers who might only have on-the-job

training, trade certification or a two-year degree. In fact, our analysis shows that over half of STEM professionals (53%) do not hold a bachelor’s degree, emphasizing that pathways to impactful careers in STEM are varied and plentiful.

A strong and robust STEM workforce is vital to American economic success, yet in 2021 only 18% of women laborers held a STEM occupation. Racial and ethnic representation also show imbalances. Black or African American workers made up 8% of STEM occupations, compared to 11% of the total workforce. Hispanic workers represented 15% of STEM roles, slightly below their 18% share of all workers. Asian workers, on the other hand, constituted 10% of STEM occupations while accounting for 6% of the overall workforce^v.

Highlights of the STEM Workforce

53%

of STEM professionals do not hold a bachelor’s degree.

Women and underrepresented minorities

are vital to STEM industry growth.

Industry sectors

like electric power generation and equipment manufacturing are heavily reliant on STEM professionals.

IMPLAN Sector**STEMM Jobs****STEMM %****Electric power generation-
Biomass****2,395****94%****Electric power generation-
Hydroelectric****8,109****91%****Heavy duty truck
manufacturing****33,399****89%****Automobile and light duty
motor vehicle manufacturing****213,713****89%****Guided missile and space
vehicle manufacturing****59,236****84%****Aircraft engine and engine
parts manufacturing****68,711****84%****Other aircraft parts and auxiliary
equipment manufacturing****80,270****84%****Aircraft manufacturing****196,586****84%****Propulsion units and parts for
space vehicles and guided
missiles manufacturing****18,871****84%****Electric power generation-
Geothermal****1,171****83%**

STEMM Workforce Development

Addressing Gaps & Opportunities

It is critical to acknowledge the many and varied pathways into STEMM fields, as doing so ensures that individuals from different educational, socioeconomic and cultural backgrounds have equitable opportunities to contribute to these essential industries. Vocational training, community college programs, apprenticeship models and stackable credentialing have enabled millions to achieve economic prosperity and contribute meaningfully to STEMM industries. America's military services can also be a tremendous source of STEMM talent for employers^{vi}.

Recognizing multiple entry points can help reduce barriers, enrich innovation, and strengthen the overall STEMM workforce. As illustrated by the inaugural Multidisciplinary Working Group (MWG)—Empowering Career Pathways in STEMM—and their recommendations^{vii}, encouraging and supporting these varied pathways better prepares the STEMM enterprise to address complex, interdisciplinary challenges of the future.

The rapid growth in STEMM fields has created a significant skills gap, as society at large has not anticipated employment needs in many sectors and, as a result, not adequately developed a pipeline of high-skill labor, potentially slowing economic growth and innovation.

Research from RAND^{viii} shows that while many current STEMM professionals enhance their careers through continued education and stacked credentialing, credential shortages^{ix} persist in some large metro areas. Jobs for the Future (JFF)^x also reports that pathways leading to tech careers can significantly enhance earning potential as well.

Addressing these gaps requires coordinated efforts among educators, policymakers and industry leaders. Enhancing vocational training, refining stackable credential pathways and increasing employer engagement in educational development can better align workforce competencies with industry demands, thus securing economic prosperity and reinforcing STEMM's essential role as the backbone of America's economic future.

Bridging the STEMM Skills Gap

- Despite STEMM's rapid growth, a skills gap threatens innovation.
- Employers struggle to find qualified workers in key STEMM fields.
- Education and training pathways must evolve to support growing STEMM demand.
- Expanding opportunities for all Americans to enter STEMM careers is critical to U.S. economic success.

Conclusion

The reality of a STEMM-driven 21st-century economy is at hand, driven by professionals previously overlooked. The central challenge now is determining how the United States can expand its STEMM workforce to meet current demand and anticipate future needs.

Addressing this will require a much-needed shift in perception of STEMM careers among educators, employers and policymakers, not to mention parents and their students. We must look beyond the traditional pathways requiring a four-year or advanced degree for interested STEMM students and reduce barriers to entry such as cost, time commitment and perceived difficulty of acquiring STEMM skills.

Enhancing vocational training, refining stackable credential pathways and increasing employer engagement in educational development are strategies to better align workforce competencies with industry demands.

Science is everyone, everywhere and the backbone of the American economy. This acknowledgment combined with educational, training and public policy actions that promote STEMM workforce development is paramount to our nation's future prosperity and global competitiveness.

References

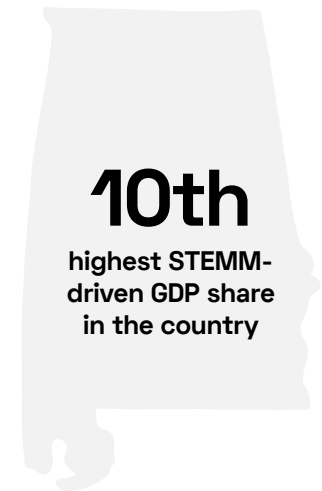
- ⁱ AIA, AAAS, ACS, AGU, APS, COSSA, Council on Competitiveness, FASEB, IEEE-USA and SIA. STEM and the American Workforce. Published online January 2020 at https://scienceisus.org/wp-content/uploads/2020/01/AAAS-STEM-Workforce-Report_2-4-2020_FINAL.pdf.
- ⁱⁱ Science is US, AAAS. People of Science: An Inclusive Analysis of the U.S. STEM Workforce and its Economic Impact. Published online March 2023 at <https://scienceisus.org/wp-content/uploads/2023/11/people-of-science-economic-impact-report-2023.pdf>.
- ⁱⁱⁱ Ibid.
- ^{iv} U.S. Bureau of Labor Statistics, Publications, Career Outlook. The fastest growing industry sector, 2023–33: Professional, scientific, and technical services. Published February 2025. Accessed at <https://www.bls.gov/careeroutlook/2025/article/fastest-growing-industry-sector.htm>.
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- ^{viii} RAND Education and Labor. Stackable Credential Pipelines in Ohio: Evidence on Programs and Earnings Outcomes. Published online June 2021 at https://www.rand.org/pubs/research_reports/RRA207-1.html.
- ^{vx} Georgetown University, Center on Education and the Workforce. Missed Opportunities: Credential Shortages in Programs Aligned with High-Paying Middle-Skills Jobs in 55 US Metro Areas. Published online September 2024 at <https://cew.georgetown.edu/high-paying-middle-skills>.
- ^x Jobs for the Future. Credentials that Pay: Designing pathways to tech careers. Published October 2024. Accessed at https://www.jff.org/wp-content/uploads/2024/10/FINAL-ROI-of-tech-credentials_101782024.pdf.

State Highlights

STEMM's Local Economic Impact

Alabama

STEMM significantly impacts Alabama's economy, accounting for 40.9% of the state's GDP—the 10th highest nationally—and employing 35.3% of its workforce, ranking 9th in the country.

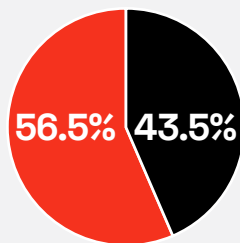


People of Science

The percentage of Alabama's STEMM workforce without a bachelor's degree (56.5%) is greater than the national average (53%).

Less than a bachelor's degree

Bachelor's degree and higher



1 Million

STEMM Professionals

35.3%

of the state's workforce in STEMM jobs

9th

largest STEMM workforce in the nation

STEMM Drives Alabama's Economy

\$131.3 Billion

amount STEMM contributes to the state's economy

40.9%

of the state's GDP comes from STEMM

STEMM Produces Tax Revenue

\$22 Billion

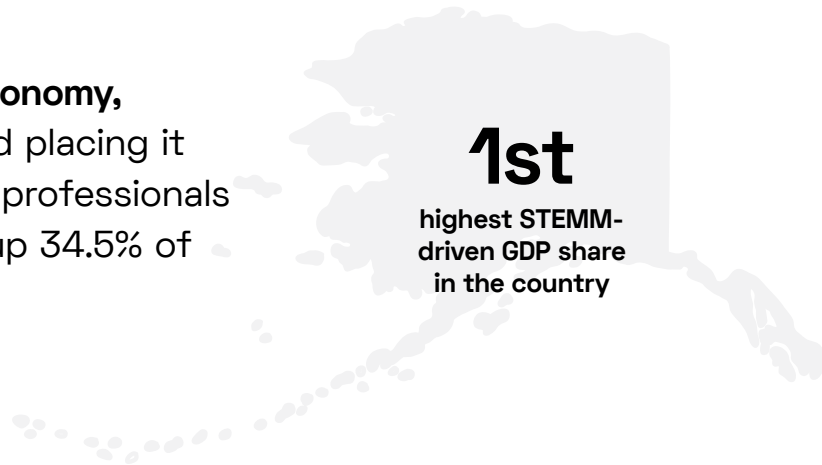
Federal tax revenue generated by STEMM in Alabama

\$9.6 Billion

State and local tax revenue generated by STEMM in Alabama

Alaska

STEMM plays a crucial role in Alaska's economy, contributing 44% to the state's GDP, and placing it first nationwide. Approximately 162,868 professionals are employed in STEMM fields, making up 34.5% of the total workforce.

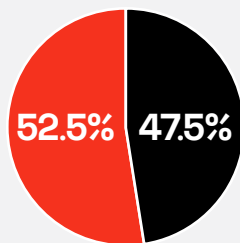


People of Science

The percentage of Alaska's STEMM workforce without a bachelor's degree (52.5%) is less than the national average (53%).

Less than a bachelor's degree

Bachelor's degree and higher



162,900

STEMM Professionals

34.5%

of the state's workforce in STEMM jobs

19th

largest STEMM workforce in the nation

STEMM Drives Alaska's Economy

\$30.6 Billion

amount STEMM contributes to the state's economy

44%

of the state's GDP comes from STEMM

STEMM Produces Tax Revenue

\$3.5 Billion

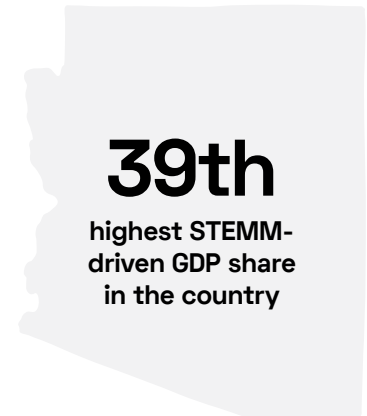
Federal tax revenue generated by STEMM in Alaska

\$1.6 Billion

State and local tax revenue generated by STEMM in Alaska

Arizona

The **STEMM** sector is a cornerstone of Arizona's economy, contributing 37.6% to the state's GDP, and placing it 39th nationwide. Approximately 1,495,877 professionals are employed in STEMM fields, making up 34.2% of the total workforce.

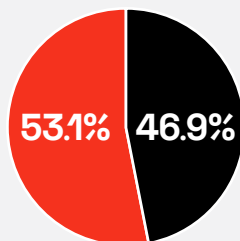


People of Science

The percentage of Arizona's STEMM workforce without a bachelor's degree (53.1%) is slightly greater than the national average (53%).

Less than a bachelor's degree

Bachelor's degree and higher



1.5 Million

STEMM Professionals

34.2%

of the state's workforce in STEMM jobs

25th

largest STEMM workforce in the nation

STEMM Drives Arizona's Economy

\$199.2 Billion

amount STEMM contributes to the state's economy

37.6%

of the state's GDP comes from STEMM

STEMM Produces Tax Revenue

\$30.8 Billion

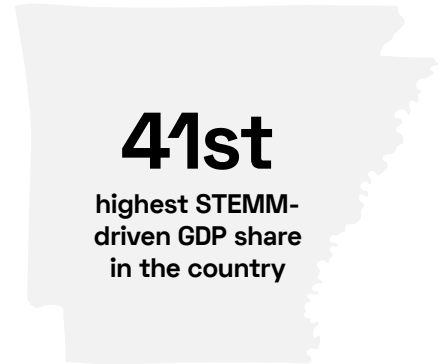
Federal tax revenue generated by STEMM in Arizona

\$13 Billion

State and local tax revenue generated by STEMM in Arizona

Arkansas

STEMM is instrumental to Arkansas' economy, contributing 37.2% to the state's GDP, and placing it 41st nationwide. Approximately 594,912 professionals are employed in STEMM fields, making up 33.5% of the total workforce.

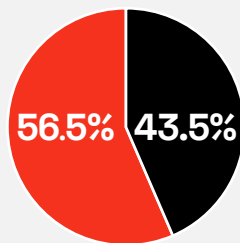


People of Science

The percentage of Arkansas's STEMM workforce without a bachelor's degree (56.5%) is greater than the national average (53%).

Less than a bachelor's degree

Bachelor's degree and higher



594,900

STEMM Professionals

33.5%

of the state's workforce in STEMM jobs

38th

largest STEMM workforce in the nation

STEMM Drives Arkansas's Economy

\$67 Billion

amount STEMM contributes to the state's economy

37.2%

of the state's GDP comes from STEMM

STEMM Produces Tax Revenue

\$11.7 Billion

Federal tax revenue generated by STEMM in Arkansas

\$4.8 Billion

State and local tax revenue generated by STEMM in Arkansas

California

STEMM industries strongly impact California's economy, contributing 39.7% to the state's GDP, and placing it 18th nationwide. Approximately 8,467,444 professionals are employed in STEMM fields, making up 33.1% of the total workforce.

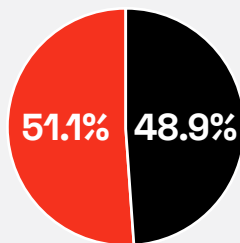


People of Science

The percentage of California's STEMM workforce without a bachelor's degree (51.1%) is less than the national average (53%).

Less than a bachelor's degree

Bachelor's degree and higher



8.5 Million

STEMM Professionals

33.1%

of the state's workforce in STEMM jobs

44th

largest STEMM workforce in the nation

STEMM Drives California's Economy

\$1.5 Trillion

amount STEMM contributes to the state's economy

39.7%

of the state's GDP comes from STEMM

STEMM Produces Tax Revenue

\$205.2 Billion

Federal tax revenue generated by STEMM in California

\$95.4 Billion

State and local tax revenue generated by STEMM in California

Colorado

The STEM sector is pivotal for Colorado's economy, contributing 38.9% to the state's GDP, and placing it 27th nationwide. Approximately 1,491,060 professionals are employed in STEM fields, making up 34.9% of the total workforce.

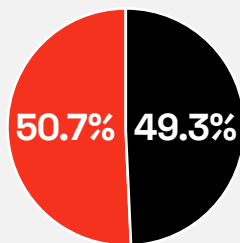
27th
highest STEM-driven GDP share in the country

People of Science

The percentage of Colorado's STEM workforce without a bachelor's degree (50.7%) is less than the national average (53%).

Less than a bachelor's degree

Bachelor's degree and higher



1.5 Million

STEM Professionals

34.9%

of the state's workforce in STEM jobs

17th

largest STEM workforce in the nation

STEMM Drives Colorado's Economy

\$208.2 Billion

amount STEMM contributes to the state's economy

38.9%

of the state's GDP comes from STEMM

STEMM Produces Tax Revenue

\$32.6 Billion

Federal tax revenue generated by STEMM in Colorado

\$14.2 Billion

State and local tax revenue generated by STEMM in Colorado

Connecticut

STEMM forms a major part of Connecticut's economy, contributing 40.7% to the state's GDP, and placing it 13th nationwide. Approximately 859,445 professionals are employed in STEMM fields, making up 35.5% of the total workforce.

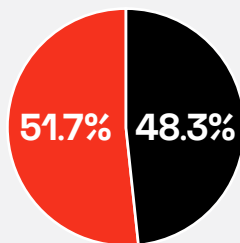


People of Science

The percentage of Connecticut's STEMM workforce without a bachelor's degree (51.7%) is less than the national average (53%).

Less than a bachelor's degree

Bachelor's degree and higher



859,400

STEMM Professionals

35.5%

of the state's workforce in STEMM jobs

6th

largest STEMM workforce in the nation

STEMM Drives Connecticut's Economy

\$142.5 Billion

amount STEMM contributes to the state's economy

40.7%

of the state's GDP comes from STEMM

STEMM Produces Tax Revenue

\$19.7 Billion

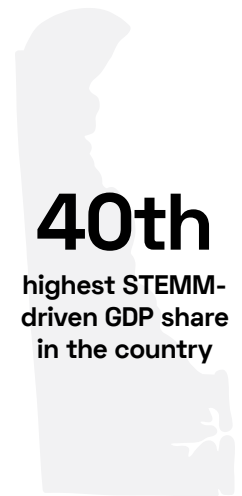
Federal tax revenue generated by STEMM in Connecticut

\$9 Billion

State and local tax revenue generated by STEMM in Connecticut

Delaware

The STEM sector strongly underpins Delaware's economy, contributing 37.5% to the state's GDP, and placing it 40th nationwide. Approximately 221,407 professionals are employed in STEM fields, making up 33.6% of the total workforce.

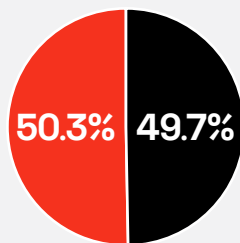


People of Science

The percentage of Delaware's STEM workforce without a bachelor's degree (50.3%) is less than the national average (53%).

Less than a bachelor's degree

Bachelor's degree and higher



221,400

STEM Professionals

33.6%

of the state's workforce in STEM jobs

36th

largest STEM workforce in the nation

STEMM Drives Delaware's Economy

\$36.7 Billion

amount STEMM contributes to the state's economy

37.5%

of the state's GDP comes from STEMM

STEMM Produces Tax Revenue

\$4.8 Billion

Federal tax revenue generated by STEMM in Delaware

\$2.1 Billion

State and local tax revenue generated by STEMM in Delaware

District of Columbia

STEMM actively fuels District of Columbia's economy, contributing 40.4% to the state's GDP, and placing it 16th nationwide. Approximately 338,194 professionals are employed in STEMM fields, making up 36.6% of the total workforce – the largest one in the U.S.

16th

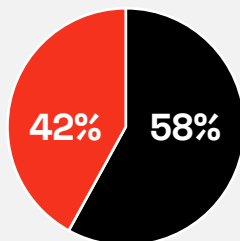
highest STEMM-driven GDP share in the country

People of Science

The percentage of Washington, DC's STEMM workforce without a bachelor's degree (42%) is less than the national average (53%).

Less than a bachelor's degree

Bachelor's degree and higher



338,200

STEMM Professionals

36.6%

of the state's workforce in STEMM jobs

1st

largest STEMM workforce in the nation

STEMM Drives Washington, DC's Economy

\$73.5 Billion

amount STEMM contributes to the state's economy

40.4%

of the state's GDP comes from STEMM

STEMM Produces Tax Revenue

\$8.4 Billion

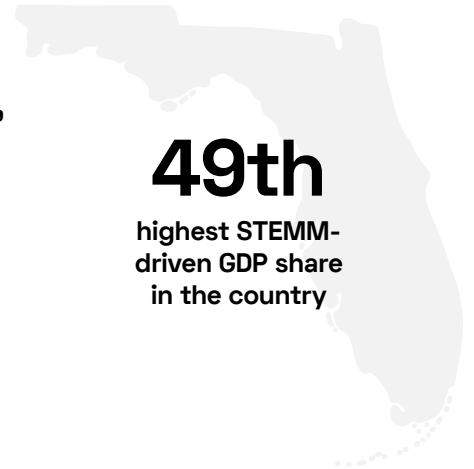
Federal tax revenue generated by STEMM in Washington, DC

\$4 Billion

State and local tax revenue generated by STEMM in Washington, DC

Florida

STEMM industries significantly bolster Florida's economy, contributing 34.5% to the state's GDP. Approximately 4,796,750 professionals are employed in STEMM fields, making up 32.9% of the total workforce.

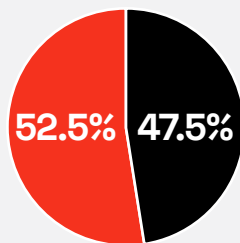


People of Science

The percentage of Florida's STEMM workforce without a bachelor's degree (52.5%) is less than the national average (53%).

Less than a bachelor's degree

Bachelor's degree and higher



4.8 Million

STEMM Professionals

32.9%

of the state's workforce in STEMM jobs

47th

largest STEMM workforce in the nation

STEMM Drives Florida's Economy

\$545.8 Billion

amount STEMM contributes to the state's economy

34.5%

of the state's GDP comes from STEMM

STEMM Produces Tax Revenue

\$89 Billion

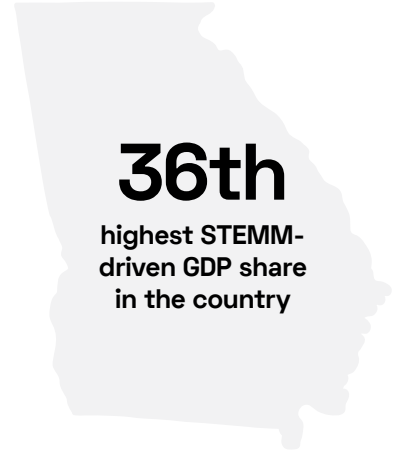
Federal tax revenue generated by STEMM in Florida

\$35.6 Billion

State and local tax revenue generated by STEMM in Florida

Georgia

The STEM sector significantly drives Georgia's economy, contributing 37.8% to the state's GDP, and placing it 36th nationwide. Approximately 2,350,559 professionals are employed in STEM fields, making up 33.3% of the total workforce.

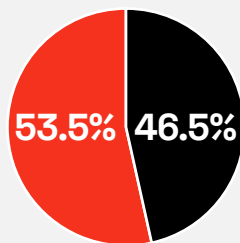


People of Science

The percentage of Georgia's STEM workforce without a bachelor's degree (53.5%) is slightly greater than the national average (53%).

Less than a bachelor's degree

Bachelor's degree and higher



2.4 Million

STEM Professionals

33.3%

of the state's workforce in STEM jobs

40th

largest STEM workforce in the nation

STEM Drives Georgia's Economy

\$311.9 Billion

amount STEM contributes to the state's economy

37.8%

of the state's GDP comes from STEM

STEM Produces Tax Revenue

\$47.2 Billion

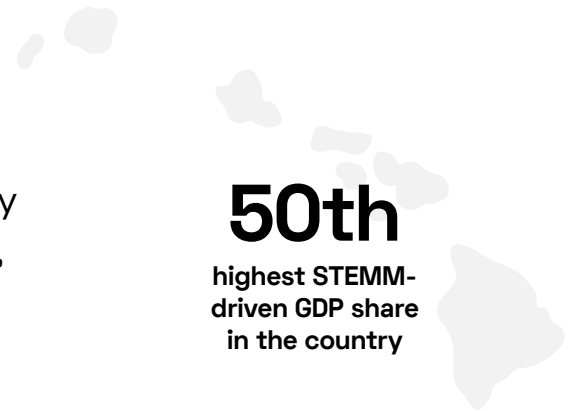
Federal tax revenue generated by STEM in Georgia

\$19.9 Billion

State and local tax revenue generated by STEM in Georgia

Hawaii

STEMM plays a significant role in Hawaii's economy, contributing 32.6% to the state's GDP. Approximately 285,119 professionals are employed in STEMM fields, making up 30.9% of the total workforce.

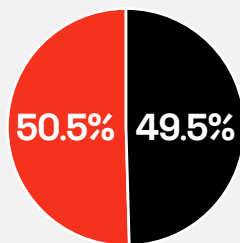


People of Science

The percentage of Hawaii's STEMM workforce without a bachelor's degree (50.5%) is less than the national average (53%).

Less than a bachelor's degree

Bachelor's degree and higher



285,100

STEMM Professionals

30.9%

of the state's workforce in STEMM jobs

50th

largest STEMM workforce in the nation

STEMM Drives Hawaii's Economy

\$36.5 Billion

amount STEMM contributes to the state's economy

32.6%

of the state's GDP comes from STEMM

STEMM Produces Tax Revenue

\$5.4 Billion

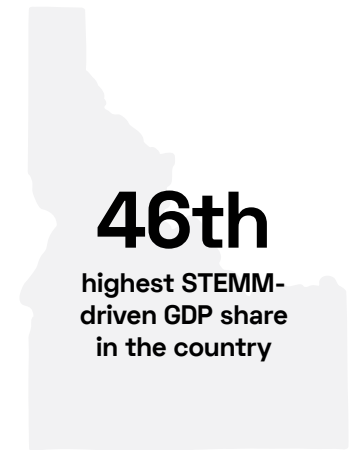
Federal tax revenue generated by STEMM in Hawaii

\$2.2 Billion

State and local tax revenue generated by STEMM in Hawaii

Idaho

The **STEMM** sector is a cornerstone of Idaho's economy, contributing 35% to the state's GDP, and placing it 46th nationwide. Approximately 401,358 professionals are employed in STEMM fields, making up 33% of the total workforce.

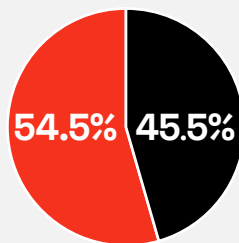


People of Science

The percentage of Idaho's STEMM workforce without a bachelor's degree (54.5%) is greater than the national average (53%).

Less than a bachelor's degree

Bachelor's degree and higher



401,400

STEMM Professionals

33%

of the state's workforce in STEMM jobs

45th

largest STEMM workforce in the nation

STEMM Drives Idaho's Economy

\$43.2 Billion

amount STEMM contributes to the state's economy

35%

of the state's GDP comes from STEMM

STEMM Produces Tax Revenue

\$7.8 Billion

Federal tax revenue generated by STEMM in Idaho

\$3.2 Billion

State and local tax revenue generated by STEMM in Idaho

Illinois

STEMM is instrumental to Illinois's economy, contributing 38.2% to the state's GDP, and placing it 31st nationwide. Approximately 2,779,174 professionals are employed in STEMM fields, making up 33.8% of the total workforce.

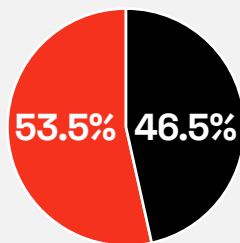


People of Science

The percentage of Illinois's STEMM workforce without a bachelor's degree (53.5%) is slightly greater than the national average (53%).

Less than a bachelor's degree

Bachelor's degree and higher



2.8 Million

STEMM Professionals

33.8%

of the state's workforce in STEMM jobs

32nd

largest STEMM workforce in the nation

STEMM Drives Illinois's Economy

\$415.5 Billion

amount STEMM contributes to the state's economy

38.2%

of the state's GDP comes from STEMM

STEMM Produces Tax Revenue

\$63.3 Billion

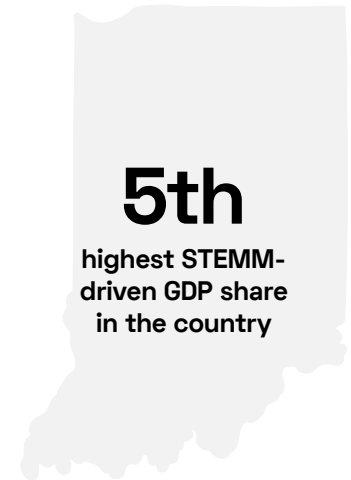
Federal tax revenue generated by STEMM in Illinois

\$28.3 Billion

State and local tax revenue generated by STEMM in Illinois

Indiana

With 1.5 million STEMM professionals comprising 35.7% of the state's workforce, Indiana ranks fifth in the nation; the state also ranks 5th in terms of the percentage of its economy directly driven by STEMM.

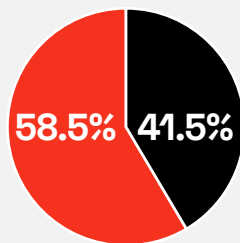


People of Science

The percentage of Indiana's STEMM workforce without a bachelor's degree (58.5%) is greater than the national average (53%).

Less than a bachelor's degree

Bachelor's degree and higher



1.5 Million

STEMM Professionals

35.7%

of the state's workforce in STEMM jobs

5th

largest STEMM workforce in the nation

STEMM Drives Indiana's Economy

\$215.8 Billion

amount STEMM contributes to the state's economy

42.3%

of the state's GDP comes from STEMM

STEMM Produces Tax Revenue

\$35.6 Billion

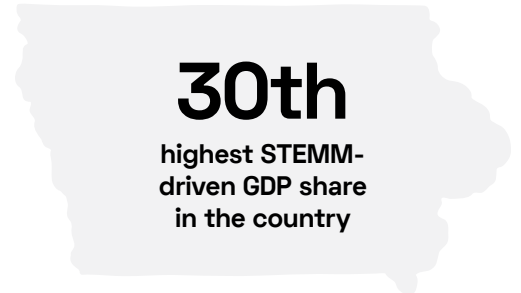
Federal tax revenue generated by STEMM in Indiana

\$16.1 Billion

State and local tax revenue generated by STEMM in Indiana

Iowa

STEMM drives Iowa's economy, contributing 38.4% to the state's GDP, and placing it 30th nationwide. Approximately 706,865 professionals are employed in STEMM fields, making up 33.3% of the total workforce.

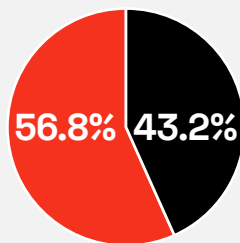


People of Science

The percentage of Iowa's STEMM workforce without a bachelor's degree (56.8%) is greater than the national average (53%).

Less than a bachelor's degree

Bachelor's degree and higher



706,900

STEMM Professionals

33.3%

of the state's workforce in STEMM jobs

42nd

largest STEMM workforce in the nation

STEMM Drives Iowa's Economy

\$99.2 Billion

amount STEMM contributes to the state's economy

38.4%

of the state's GDP comes from STEMM

STEMM Produces Tax Revenue

\$16 Billion

Federal tax revenue generated by STEMM in Iowa

\$7 Billion

State and local tax revenue generated by STEMM in Iowa

Kansas

The **STEMM** sector forms a major part of Kansas's economy, contributing 39.5% to the state's GDP, and placing it 22nd nationwide. Approximately 702,272 professionals are employed in STEMM fields, making up 35.1% of the total workforce.

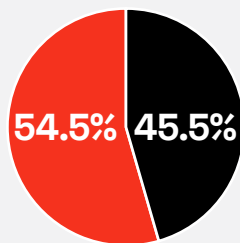
22nd
highest STEMM-driven GDP share in the country

People of Science

The percentage of Kansas's STEMM workforce without a bachelor's degree (54.5%) is greater than the national average (53%).

Less than a bachelor's degree

Bachelor's degree and higher



702,300

STEMM Professionals

35.1%

of the state's workforce in STEMM jobs

12th

largest STEMM workforce in the nation

STEMM Drives Kansas's Economy

\$90.3 Billion

amount STEMM contributes to the state's economy

39.5%

of the state's GDP comes from STEMM

STEMM Produces Tax Revenue

\$15.3 Billion

Federal tax revenue generated by STEMM in Kansas

\$6.5 Billion

State and local tax revenue generated by STEMM in Kansas

Kentucky

STEMM strongly underpins Kentucky's economy, contributing 38.6% to the state's GDP, and placing it 28th nationwide. Approximately 925,575 professionals are employed in STEMM fields, making up 34.2% of the total workforce.

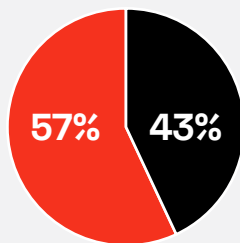


People of Science

The percentage of Kentucky's STEMM workforce without a bachelor's degree (57%) is greater than the national average (53%).

Less than a bachelor's degree

Bachelor's degree and higher



925,600

STEMM Professionals

34.2%

of the state's workforce in STEMM jobs

24th

largest STEMM workforce in the nation

STEMM Drives Kentucky's Economy

\$110.1 Billion

amount STEMM contributes to the state's economy

38.6%

of the state's GDP comes from STEMM

STEMM Produces Tax Revenue

\$20.4 Billion

Federal tax revenue generated by STEMM in Kentucky

\$8.8 Billion

State and local tax revenue generated by STEMM in Kentucky

Louisiana

STEMM sectors actively fuel Louisiana's economy, contributing 41.8% to the state's GDP, and placing it 7th nationwide. Approximately 943,893 professionals are employed in STEMM fields, making up 33.8% of the total workforce.

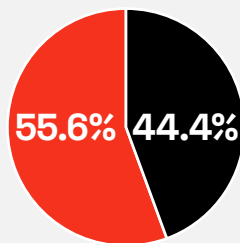


People of Science

The percentage of Louisiana's STEMM workforce without a bachelor's degree (55.6%) is greater than the national average (53%).

Less than a bachelor's degree

Bachelor's degree and higher



943,900

STEMM Professionals

33.8%

of the state's workforce in STEMM jobs

31st

largest STEMM workforce in the nation

STEMM Drives Louisiana's Economy

\$135 Billion

amount STEMM contributes to the state's economy

41.8%

of the state's GDP comes from STEMM

STEMM Produces Tax Revenue

\$20.8 Billion

Federal tax revenue generated by STEMM in Louisiana

\$9.3 Billion

State and local tax revenue generated by STEMM in Louisiana

Maine

STEMM significantly bolsters Maine's economy, contributing 35.3% to the state's GDP. Approximately 297,611 professionals are employed in STEMM fields, making up 33.7% of the total workforce.

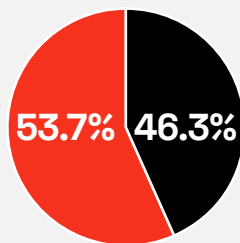


People of Science

The percentage of Maine's STEMM workforce without a bachelor's degree (53.7%) is greater than the national average (53%).

Less than a bachelor's degree

Bachelor's degree and higher



297,600

STEMM Professionals

33.7%

of the state's workforce in STEMM jobs

35th

largest STEMM workforce in the nation

STEMM Drives Maine's Economy

\$33.5 Billion

amount STEMM contributes to the state's economy

35.3%

of the state's GDP comes from STEMM

STEMM Produces Tax Revenue

\$5.7 Billion

Federal tax revenue generated by STEMM in Maine

\$2.3 Billion

State and local tax revenue generated by STEMM in Maine

Maryland

The STEM sector significantly drives Maryland's economy, contributing 39.5% to the state's GDP, and placing it 23rd nationwide. Approximately 1,387,431 professionals are employed in STEM fields, making up 35% of the total workforce.

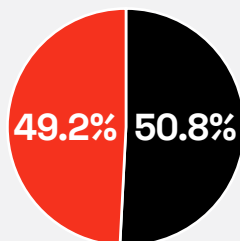


People of Science

The percentage of Maryland's STEM workforce without a bachelor's degree (49.2%) is less than the national average (53%).

Less than a bachelor's degree

Bachelor's degree and higher



1.4 Million

STEM Professionals

35%

of the state's workforce in STEM jobs

15th

largest STEM workforce in the nation

STEMM Drives Maryland's Economy

\$210.5 Billion

amount STEMM contributes to the state's economy

39.5%

of the state's GDP comes from STEMM

STEMM Produces Tax Revenue

\$28.3 Billion

Federal tax revenue generated by STEMM in Maryland

\$12.2 Billion

State and local tax revenue generated by STEMM in Maryland

Massachusetts

STEMM plays a crucial role in Massachusetts's economy, contributing 42.8% to the state's GDP, and placing it second nationwide. Approximately 1,830,635 professionals are employed in STEMM fields, making up 36.4% of the total workforce.

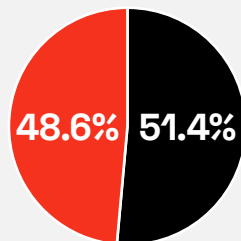


People of Science

The percentage of Massachusetts's STEMM workforce without a bachelor's degree (48.6%) is less than the national average (53%).

Less than a bachelor's degree

Bachelor's degree and higher



1.8 Million

STEMM Professionals

36.4%

of the state's workforce in STEMM jobs

3rd

largest STEMM workforce in the nation

STEMM Drives Massachusetts's Economy

\$323.9 Billion

amount STEMM contributes to the state's economy

42.8%

of the state's GDP comes from STEMM

STEMM Produces Tax Revenue

\$44.6 Billion

Federal tax revenue generated by STEMM in Massachusetts

\$20.6 Billion

State and local tax revenue generated by STEMM in Massachusetts

Michigan

The **STEMM** sector is a cornerstone of Michigan's economy, contributing 40.8% to the state's GDP, and placing it 11th nationwide. Approximately 2,174,433 professionals are employed in STEMM fields, making up 36.5% of the total workforce.

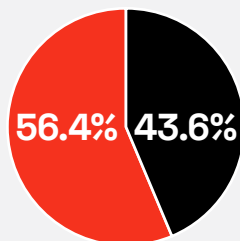


People of Science

The percentage of Michigan's STEMM workforce without a bachelor's degree (56.4%) is greater than the national average (55.4%).

Less than a bachelor's degree

Bachelor's degree and higher



2.2 Million

STEMM Professionals

36.5%

of the state's workforce in STEMM jobs

2nd

largest STEMM workforce in the nation

STEMM Drives Michigan's Economy

\$283.1 Billion

amount STEMM contributes to the state's economy

40.8%

of the state's GDP comes from STEMM

STEMM Produces Tax Revenue

\$49.4 Billion

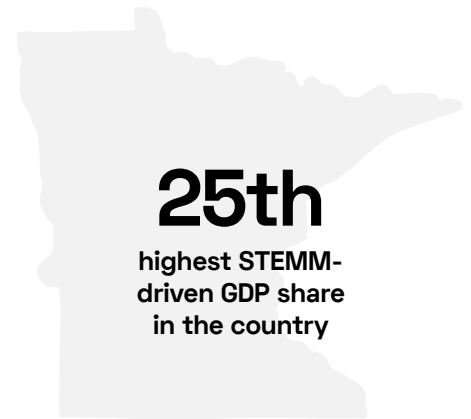
Federal tax revenue generated by STEMM in Michigan

\$21.8 Billion

State and local tax revenue generated by STEMM in Michigan

Minnesota

STEMM industries are instrumental to Minnesota's economy, contributing 39.2% to the state's GDP, and placing it 25th nationwide. Approximately 1,367,877 professionals are employed in STEMM fields, making up 34.9% of the total workforce.

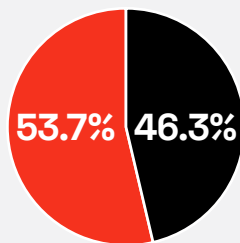


People of Science

The percentage of Minnesota's STEMM workforce without a bachelor's degree (53.7%) is greater than the national average (53%).

Less than a bachelor's degree

Bachelor's degree and higher



1.4 Million

STEMM Professionals

34.9%

of the state's workforce in STEMM jobs

16th

largest STEMM workforce in the nation

STEMM Drives Minnesota's Economy

\$191.8 Billion

amount STEMM contributes to the state's economy

39.2%

of the state's GDP comes from STEMM

STEMM Produces Tax Revenue

\$30.5 Billion

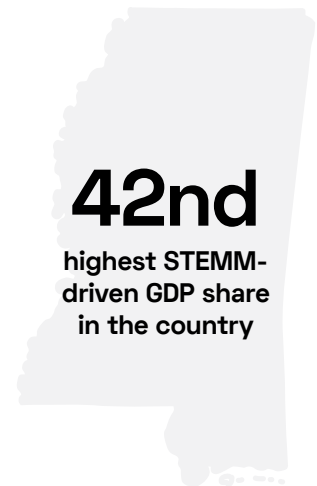
Federal tax revenue generated by STEMM in Minnesota

\$13.4 Billion

State and local tax revenue generated by STEMM in Minnesota

Mississippi

The STEM sector strongly impacts Mississippi's economy, contributing 37% to the state's GDP, and placing it 42nd nationwide. Approximately 549,454 professionals are employed in STEM fields, making up 32.7% of the total workforce.

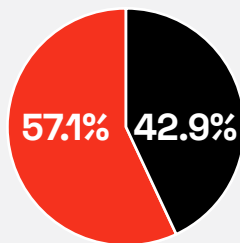


People of Science

The percentage of Mississippi's STEM workforce without a bachelor's degree (57.1%) is greater than the national average (53%).

Less than a bachelor's degree

Bachelor's degree and higher



549,500

STEMM Professionals

32.7%

of the state's workforce in STEM jobs

48th

largest STEM workforce in the nation

STEMM Drives Mississippi's Economy

\$56.9 Billion

amount STEM contributes to the state's economy

37%

of the state's GDP comes from STEM

STEMM Produces Tax Revenue

\$10.7 Billion

Federal tax revenue generated by STEM in Mississippi

\$4.4 Billion

State and local tax revenue generated by STEM in Mississippi

Missouri

STEMM is pivotal for Missouri's economy, contributing 38.5% to the state's GDP, and placing it 29th nationwide. Approximately 1,352,023 professionals are employed in STEMM fields, making up 34.2% of the total workforce.

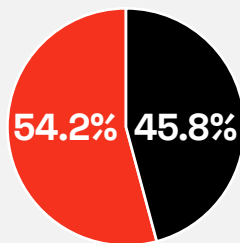


People of Science

The percentage of Missouri's STEMM workforce without a bachelor's degree (54.2%) is greater than the national average (53%).

Less than a bachelor's degree

Bachelor's degree and higher



1.4 Million

STEMM Professionals

34.2%

of the state's workforce in STEMM jobs

26th

largest STEMM workforce in the nation

STEMM Drives Missouri's Economy

\$166.6 Billion

amount STEMM contributes to the state's economy

38.5%

of the state's GDP comes from STEMM

STEMM Produces Tax Revenue

\$28 Billion

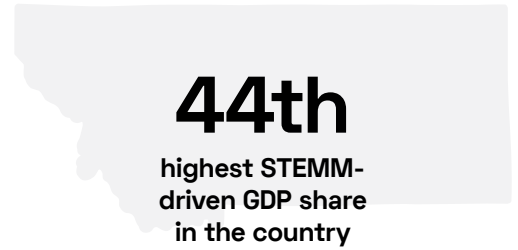
Federal tax revenue generated by STEMM in Missouri

\$11.9 Billion

State and local tax revenue generated by STEMM in Missouri

Montana

The **STEMM** sector forms a major part of Montana's economy, contributing 36% to the state's GDP, and placing it 44th nationwide. Approximately 243,416 professionals are employed in STEMM fields, making up 32.1% of the total workforce.

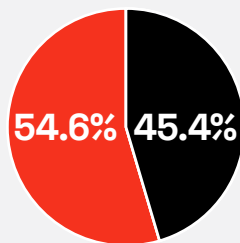


People of Science

The percentage of Montana's STEMM workforce without a bachelor's degree (54.6%) is greater than the national average (53%).

Less than a bachelor's degree

Bachelor's degree and higher



243,400

STEMM Professionals

32.1%

of the state's workforce in STEMM jobs

49th

largest STEMM workforce in the nation

STEMM Drives Montana's Economy

\$27.1 Billion

amount STEMM contributes to the state's economy

36%

of the state's GDP comes from STEMM

STEMM Produces Tax Revenue

\$4.7 Billion

Federal tax revenue generated by STEMM in Montana

\$1.9 Billion

State and local tax revenue generated by STEMM in Montana

Nebraska

The STEM sector strongly underpins Nebraska's economy, contributing 37.7% to the state's GDP, and placing it 37th nationwide. Approximately 461,691 professionals are employed in STEM fields, making up 33.4% of the total workforce.

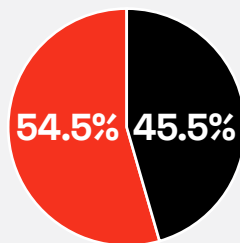
37th
highest STEM-driven GDP share in the country

People of Science

The percentage of Nebraska's STEM workforce without a bachelor's degree (54.5%) is greater than the national average (53%).

Less than a bachelor's degree

Bachelor's degree and higher



461,700

STEM Professionals

33.4%

of the state's workforce in STEM jobs

39th

largest STEM workforce in the nation

STEMM Drives Nebraska's Economy

\$68.5 Billion

amount STEM contributes to the state's economy

37.7%

of the state's GDP comes from STEM

STEMM Produces Tax Revenue

\$10.1 Billion

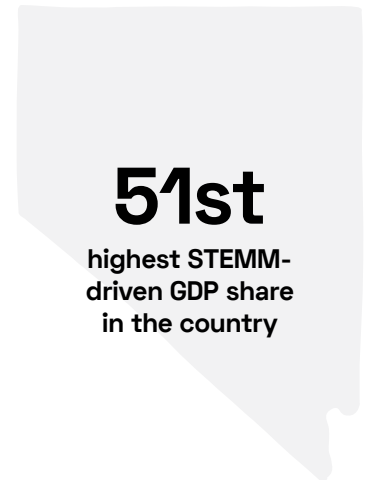
Federal tax revenue generated by STEM in Nebraska

\$4.4 Billion

State and local tax revenue generated by STEM in Nebraska

Nevada

STEMM actively fuels Nevada's economy, contributing 32.1% to the state's GDP. Approximately 624,481 professionals are employed in STEMM fields, making up 29.7% of the total workforce.

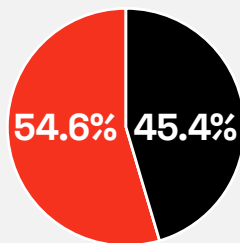


People of Science

The percentage of Nevada's STEMM workforce without a bachelor's degree (54.6%) is greater than the national average (53%).

Less than a bachelor's degree

Bachelor's degree and higher



624,500

STEMM Professionals

29.7%

of the state's workforce in STEMM jobs

51st

largest STEMM workforce in the nation

STEMM Drives Nevada's Economy

\$79.2 Billion

amount STEMM contributes to the state's economy

32.1%

of the state's GDP comes from STEMM

STEMM Produces Tax Revenue

\$12 Billion

Federal tax revenue generated by STEMM in Nevada

\$5 Billion

State and local tax revenue generated by STEMM in Nevada

New Hampshire

The STEM sector bolsters New Hampshire's economy, contributing 38.9% to the state's GDP, and placing it 26th nationwide. Approximately 337,850 professionals are employed in STEM fields, making up 36% of the total workforce.

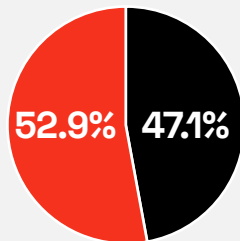


People of Science

The percentage of New Hampshire's STEM workforce without a bachelor's degree (52.9%) is slightly less than the national average (53%).

Less than a bachelor's degree

Bachelor's degree and higher



337,900

STEMM Professionals

36%

of the state's workforce in STEMM jobs

4th

largest STEMM workforce in the nation

STEMM Drives New Hampshire's Economy

\$46.1 Billion

amount STEMM contributes to the state's economy

38.9%

of the state's GDP comes from STEMM

STEMM Produces Tax Revenue

\$7.3 Billion

Federal tax revenue generated by STEMM in New Hampshire

\$3.2 Billion

State and local tax revenue generated by STEMM in New Hampshire

New Jersey

STEMM drives New Jersey's economy, contributing 37.9% to the state's GDP. Approximately 2,022,439 professionals are employed in STEMM fields, making up 33.9% of the total workforce.

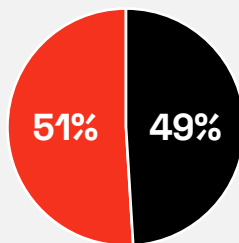


People of Science

The percentage of New Jersey's STEMM workforce without a bachelor's degree (51%) is less than the national average (53%).

Less than a bachelor's degree

Bachelor's degree and higher



2 Million

STEMM Professionals

33.9%

of the state's workforce in STEMM jobs

30th

largest STEMM workforce in the nation

STEMM Drives New Jersey's Economy

\$306.6 Billion

amount STEMM contributes to the state's economy

37.9%

of the state's GDP comes from STEMM

STEMM Produces Tax Revenue

\$44.5 Billion

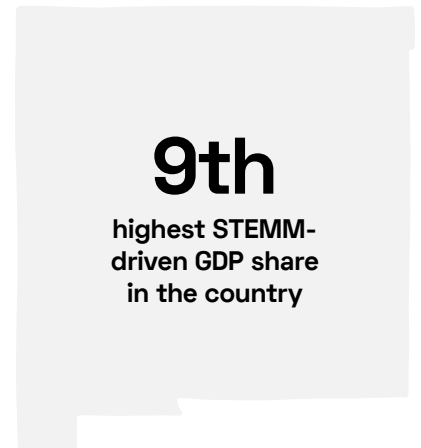
Federal tax revenue generated by STEMM in New Jersey

\$19.7 Billion

State and local tax revenue generated by STEMM in New Jersey

New Mexico

STEMM plays a crucial role in New Mexico's economy, contributing 41% to the state's GDP, and placing it 9th nationwide. Approximately 393,306 professionals are employed in STEMM fields, making up 33.6% of the total workforce.

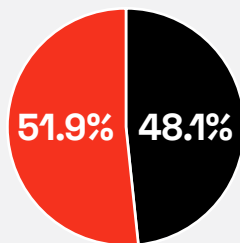


People of Science

The percentage of New Mexico's STEMM workforce without a bachelor's degree (51.9%) is less than the national average (53%).

Less than a bachelor's degree

Bachelor's degree and higher



393,300

STEMM Professionals

33.6%

of the state's workforce in STEMM jobs

37th

largest STEMM workforce in the nation

STEMM Drives New Mexico's Economy

\$60.7 Billion

amount STEMM contributes to the state's economy

41%

of the state's GDP comes from STEMM

STEMM Produces Tax Revenue

\$7.9 Billion

Federal tax revenue generated by STEMM in New Mexico

\$3.3 Billion

State and local tax revenue generated by STEMM in New Mexico

New York

The STEM sector is a cornerstone of New York's economy, contributing 37.7% to the state's GDP, and placing it 38th nationwide. Approximately 4,352,948 professionals are employed in STEM fields, making up 33.2% of the total workforce.

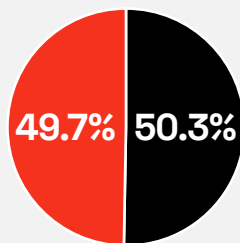


People of Science

The percentage of New York's STEM workforce without a bachelor's degree (49.7%) is less than the national average (53%).

Less than a bachelor's degree

Bachelor's degree and higher



4.4 Million

STEM Professionals

33.2%

of the state's workforce in STEM jobs

43rd

largest STEM workforce in the nation

STEM Drives New York's Economy

\$798.2 Billion

amount STEM contributes to the state's economy

37.7%

of the state's GDP comes from STEM

STEM Produces Tax Revenue

\$101.8 Billion

Federal tax revenue generated by STEM in New York

\$47.2 Billion

State and local tax revenue generated by STEM in New York

North Carolina

STEMM industries are instrumental to North Carolina's economy, contributing 39.4% to the state's GDP, and placing it 24th nationwide. Approximately 2,330,844 professionals are employed in STEMM fields, making up 34.5% of the total workforce.

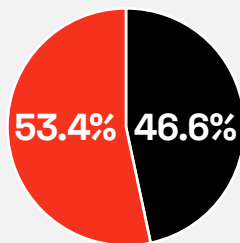


People of Science

The percentage of North Carolina's STEMM workforce without a bachelor's degree (53.4%) is slightly greater than the national average (53%).

Less than a bachelor's degree

Bachelor's degree and higher



2.3 Million

STEMM Professionals

34.5%

of the state's workforce in STEMM jobs

18th

largest STEMM workforce in the nation

STEMM Drives North Carolina's Economy

\$310.7 Billion

amount STEMM contributes to the state's economy

39.4%

of the state's GDP comes from STEMM

STEMM Produces Tax Revenue

\$47.8 Billion

Federal tax revenue generated by STEMM in North Carolina

\$20.4 Billion

State and local tax revenue generated by STEMM in North Carolina

North Dakota

STEMM strongly impacts North Dakota's economy, contributing 40.4% to the state's GDP, and placing it 15th nationwide. Approximately 201,440 professionals are employed in STEMM fields, making up 33.7% of the total workforce.

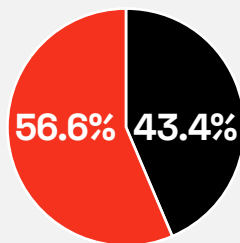
15th
highest STEMM-driven GDP share in the country

People of Science

The percentage of North Dakota's STEMM workforce without a bachelor's degree (56.6%) is greater than the national average (53%).

Less than a bachelor's degree

Bachelor's degree and higher



201,400

STEMM Professionals

33.7%

of the state's workforce in STEMM jobs

33rd

largest STEMM workforce in the nation

STEMM Drives North Dakota's Economy

\$31 Billion

amount STEMM contributes to the state's economy

40.4%

of the state's GDP comes from STEMM

STEMM Produces Tax Revenue

\$4.5 Billion

Federal tax revenue generated by STEMM in North Dakota

\$2 Billion

State and local tax revenue generated by STEMM in North Dakota

Ohio

The STEM sector is pivotal for Ohio's economy, contributing 40.7% to the state's GDP, and placing it 12th nationwide. Approximately 2,632,823 professionals are employed in STEM fields, making up 35.4% of the total workforce.

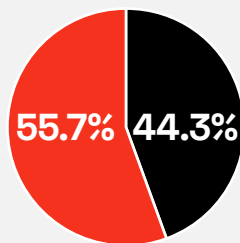


People of Science

The percentage of Ohio's STEM workforce without a bachelor's degree (55.7%) is greater than the national average (53%).

Less than a bachelor's degree

Bachelor's degree and higher



2.6 Million

STEM Professionals

35.4%

of the state's workforce in STEM jobs

7th

largest STEM workforce in the nation

STEM Drives Ohio's Economy

\$363.6 Billion

amount STEM contributes to the state's economy

40.7%

of the state's GDP comes from STEM

STEM Produces Tax Revenue

\$57 Billion

Federal tax revenue generated by STEM in Ohio

\$24.8 Billion

State and local tax revenue generated by STEM in Ohio

Oklahoma

STEMM forms a major part of Oklahoma's economy, contributing 41% to the state's GDP, and placing it eighth nationwide. Approximately 839,727 professionals are employed in STEMM fields, making up 34.3% of the total workforce.

8th

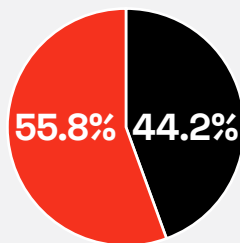
highest STEMM-driven GDP share in the country

People of Science

The percentage of Oklahoma's STEMM workforce without a bachelor's degree (55.8%) is greater than the national average (53%).

Less than a bachelor's degree

Bachelor's degree and higher



839,700

STEMM Professionals

34.3%

of the state's workforce in STEMM jobs

23rd

largest STEMM workforce in the nation

STEMM Drives Oklahoma's Economy

\$108.7 Billion

amount STEMM contributes to the state's economy

41%

of the state's GDP comes from STEMM

STEMM Produces Tax Revenue

\$18.4 Billion

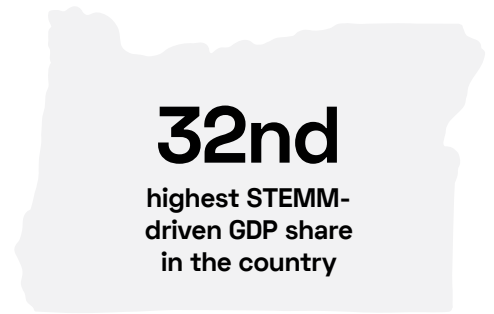
Federal tax revenue generated by STEMM in Oklahoma

\$7.9 Billion

State and local tax revenue generated by STEMM in Oklahoma

Oregon

The STEM sector strongly underpins Oregon's economy, contributing 38% to the state's GDP, and placing it 32nd nationwide. Approximately 893,672 professionals are employed in STEM fields, making up 33% of the total workforce.

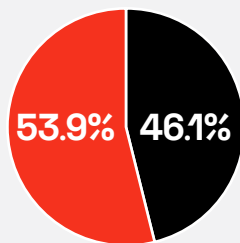


People of Science

The percentage of Oregon's STEM workforce without a bachelor's degree (53.9%) is greater than the national average (53%).

Less than a bachelor's degree

Bachelor's degree and higher



893,700

STEM Professionals

33%

of the state's workforce in STEM jobs

46th

largest STEM workforce in the nation

STEM Drives Oregon's Economy

\$122.2 Billion

amount STEM contributes to the state's economy

38%

of the state's GDP comes from STEM

STEM Produces Tax Revenue

\$19.2 Billion

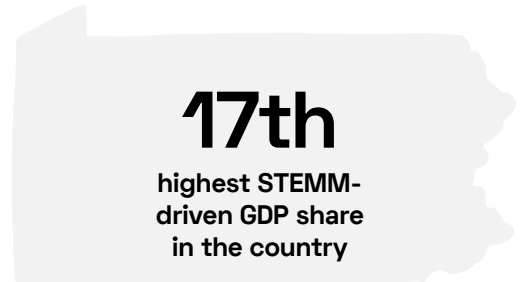
Federal tax revenue generated by STEM in Oregon

\$8.3 Billion

State and local tax revenue generated by STEM in Oregon

Pennsylvania

STEMM actively fuels Pennsylvania's economy, contributing 39.8% to the state's GDP, and placing it 17th nationwide. Approximately 2,800,621 professionals are employed in STEMM fields, making up 34.4% of the total workforce.

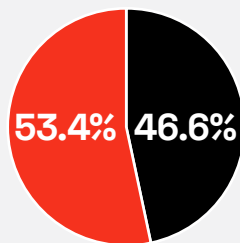


People of Science

The percentage of Pennsylvania's STEMM workforce without a bachelor's degree (53.4%) is slightly greater than the national average (53%).

Less than a bachelor's degree

Bachelor's degree and higher



2.8 Million

STEMM Professionals

34.4%

of the state's workforce in STEMM jobs

20th

largest STEMM workforce in the nation

STEMM Drives Pennsylvania's Economy

\$394.4 Billion

amount STEMM contributes to the state's economy

39.8%

of the state's GDP comes from STEMM

STEMM Produces Tax Revenue

\$61.2 Billion

Federal tax revenue generated by STEMM in Pennsylvania

\$26.8 Billion

State and local tax revenue generated by STEMM in Pennsylvania

Rhode Island

The STEM sector significantly bolsters Rhode Island's economy, contributing 36.9% to the state's GDP, and placing it 43rd nationwide. Approximately 232,784 professionals are employed in STEM fields, making up 34.4% of the total workforce.

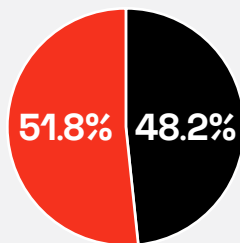


People of Science

The percentage of Rhode Island's STEM workforce without a bachelor's degree (51.8%) is less than the national average (53%).

Less than a bachelor's degree

Bachelor's degree and higher



232,800

STEMM Professionals

34.4%

of the state's workforce in STEMM jobs

22nd

largest STEMM workforce in the nation

STEMM Drives Rhode Island's Economy

\$29.6 Billion

amount STEMM contributes to the state's economy

36.9%

of the state's GDP comes from STEMM

STEMM Produces Tax Revenue

\$4.6 Billion

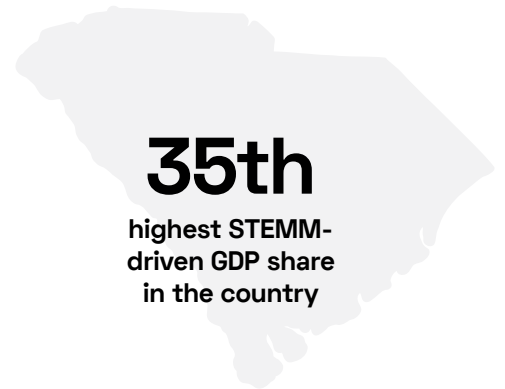
Federal tax revenue generated by STEMM in Rhode Island

\$1.9 Billion

State and local tax revenue generated by STEMM in Rhode Island

South Carolina

STEMM drives South Carolina's economy, contributing 37.8% to the state's GDP, and placing it 35th nationwide. Approximately 1,063,472 professionals are employed in STEMM fields, making up 34.1% of the total workforce.

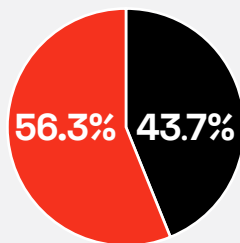


People of Science

The percentage of South Carolina's STEMM workforce without a bachelor's degree (56.3%) is greater than the national average (53%).

Less than a bachelor's degree

Bachelor's degree and higher



1 Million

STEMM Professionals

34.1%

of the state's workforce in STEMM jobs

27th

largest STEMM workforce in the nation

STEMM Drives South Carolina's Economy

\$125.1 Billion

amount STEMM contributes to the state's economy

37.8%

of the state's GDP comes from STEMM

STEMM Produces Tax Revenue

\$21.6 Billion

Federal tax revenue generated by STEMM in South Carolina

\$9 Billion

State and local tax revenue generated by STEMM in South Carolina

South Dakota

STEMM plays a crucial role in South Dakota's economy, contributing 34.9% to the state's GDP, and placing it 48th nationwide. Approximately 218,577 professionals are employed in STEMM fields, making up 33.3% of the total workforce.

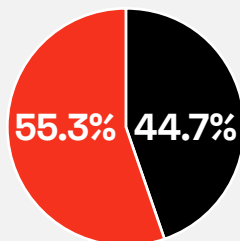
48th
highest STEMM-driven GDP share in the country

People of Science

The percentage of South Dakota's STEMM workforce without a bachelor's degree (55.3%) is greater than the national average (53%).

Less than a bachelor's degree

Bachelor's degree and higher



218,600

STEMM Professionals

33.3%

of the state's workforce in STEMM jobs

41st

largest STEMM workforce in the nation

STEMM Drives South Dakota's Economy

\$26.2 Billion

amount STEMM contributes to the state's economy

34.9%

of the state's GDP comes from STEMM

STEMM Produces Tax Revenue

\$4.5 Billion

Federal tax revenue generated by STEMM in South Dakota

\$1.9 Billion

State and local tax revenue generated by STEMM in South Dakota

Tennessee

The **STEMM** sector is a cornerstone of Tennessee's economy, contributing 37.9% to the state's GDP, and placing it 34th nationwide. Approximately 1,548,897 professionals are employed in STEMM fields, making up 33.9% of the total workforce.

34th
highest STEMM-driven GDP share in the country

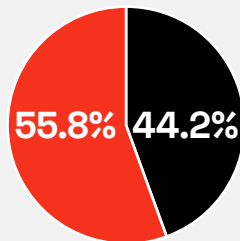
People of Science

The percentage of Tennessee's STEMM workforce without a bachelor's degree (55.8%) is greater than the national average (53%).

Tennessee ranks 13th in the nation on the percent of its STEMM workforce who have earned less than a bachelor's degree.

Less than a bachelor's degree

Bachelor's degree and higher



1.5 Million

STEMM Professionals

33.9%

of the state's workforce in STEMM jobs

29th

largest STEMM workforce in the nation

STEMM Drives Tennessee's Economy

\$201.6 Billion

amount STEMM contributes to the state's economy

37.9%

of the state's GDP comes from STEMM

STEMM Produces Tax Revenue

\$34.3 Billion

Federal tax revenue generated by STEMM in Tennessee

\$15 Billion

State and local tax revenue generated by STEMM in Tennessee

Texas

STEMM is instrumental to Texas's economy, contributing 42.1% to the state's GDP, and placing it sixth nationwide. Approximately 6,914,600 professionals are employed in STEMM fields, making up 34.4% of the total workforce.



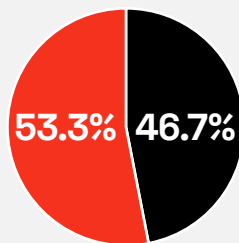
People of Science

The percentage of Texas's STEMM workforce without a bachelor's degree (53.3%) is slightly greater than the national average (53%).

Texas ranks 31st in the nation on the percent of its STEMM workforce who have earned less than a bachelor's degree.

Less than a bachelor's degree

Bachelor's degree and higher



6.9 Million

STEMM Professionals

34.4%

of the state's workforce in STEMM jobs

21st

largest STEMM workforce in the nation

STEMM Drives Texas's Economy

\$1 Trillion

amount STEMM contributes to the state's economy

42.1%

of the state's GDP comes from STEMM

STEMM Produces Tax Revenue

\$160.2 Billion

Federal tax revenue generated by STEMM in Texas

\$72.3 Billion

State and local tax revenue generated by STEMM in Texas

Utah

The STEM sector strongly impacts Utah's economy, contributing 39.7% to the state's GDP, and placing it 20th nationwide. Approximately 846,760 professionals are employed in STEM fields, making up 35.4% of the total workforce.

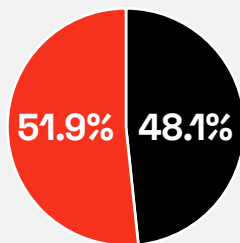


People of Science

The percentage of Utah's STEM workforce without a bachelor's degree (51.9%) is less than the national average (53%).

Less than a bachelor's degree

Bachelor's degree and higher



846,800

STEMM Professionals

35.4%

of the state's workforce in STEM jobs

8th

largest STEM workforce in the nation

STEMM Drives Utah's Economy

\$112.2 Billion

amount STEM contributes to the state's economy

39.7%

of the state's GDP comes from STEM

STEMM Produces Tax Revenue

\$17.2 Billion

Federal tax revenue generated by STEM in Utah

\$7.2 Billion

State and local tax revenue generated by STEM in Utah

Vermont

STEMM is pivotal for Vermont's economy, contributing 34.9% to the state's GDP. Approximately 148,681 professionals are employed in STEMM fields, making up 33.7% of the total workforce.

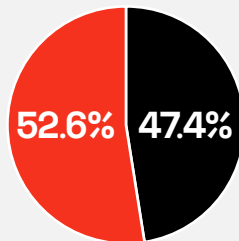


People of Science

The percentage of Vermont's STEMM workforce without a bachelor's degree (52.6%) is slightly less than the national average (53%).

Less than a bachelor's degree

Bachelor's degree and higher



148,700

STEMM Professionals

33.7%

of the state's workforce in STEMM jobs

34th

largest STEMM workforce in the nation

STEMM Drives Vermont's Economy

\$15.8 Billion

amount STEMM contributes to the state's economy

34.9%

of the state's GDP comes from STEMM

STEMM Produces Tax Revenue

\$2.9 Billion

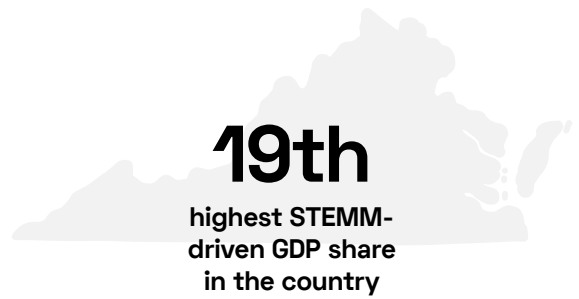
Federal tax revenue generated by STEMM in Vermont

\$1.1 Billion

State and local tax revenue generated by STEMM in Vermont

Virginia

STEMM industries form a major part of Virginia's economy, contributing 39.7% to the state's GDP, and placing it 19th nationwide. Approximately 2,006,814 professionals are employed in STEMM fields, making up 35.2% of the total workforce.

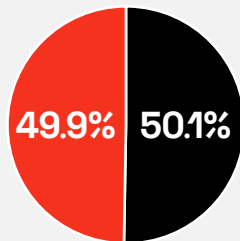


People of Science

The percentage of Virginia's STEMM workforce without a bachelor's degree (49.9%) is less than the national average (53%).

Less than a bachelor's degree

Bachelor's degree and higher



2 Million

STEMM Professionals

35.2%

of the state's workforce in STEMM jobs

11th

largest STEMM workforce in the nation

STEMM Drives Virginia's Economy

\$286.6 Billion

amount STEMM contributes to the state's economy

39.7%

of the state's GDP comes from STEMM

STEMM Produces Tax Revenue

\$41.6 Billion

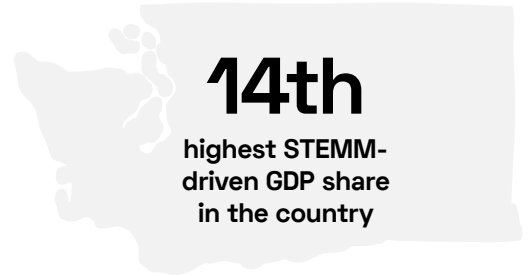
Federal tax revenue generated by STEMM in Virginia

\$17.9 Billion

State and local tax revenue generated by STEMM in Virginia

Washington

The STEM sector strongly underpins Washington's economy, contributing 40.4% to the state's GDP, and placing it 14th nationwide. Approximately 1,703,798 professionals are employed in STEM fields, making up 35% of the total workforce.

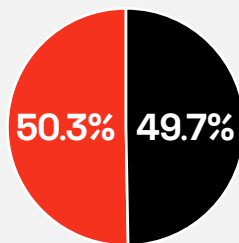


People of Science

The percentage of Washington's STEM workforce without a bachelor's degree (50.3%) is less than the national average (53%).

Less than a bachelor's degree

Bachelor's degree and higher



1.7 Million

STEM Professionals

35%

of the state's workforce in STEM jobs

13th

largest STEM workforce in the nation

STEMM Drives Washington's Economy

\$324.5 Billion

amount STEM contributes to the state's economy

40.4%

of the state's GDP comes from STEM

STEMM Produces Tax Revenue

\$42.2 Billion

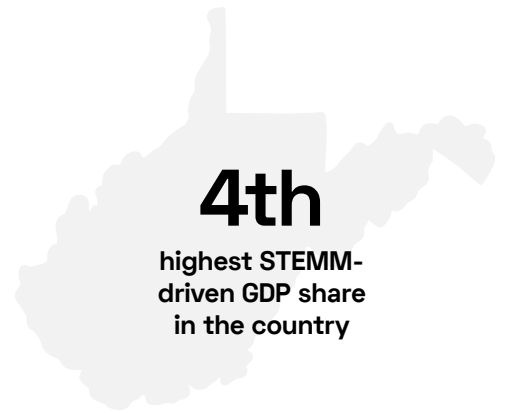
Federal tax revenue generated by STEM in Washington

\$19.7 Billion

State and local tax revenue generated by STEM in Washington

West Virginia

STEMM fuels West Virginia's economy, contributing 42.6% to the state's GDP, and placing it fourth nationwide. Approximately 317,064 professionals are employed in STEMM fields, making up 35% of the total workforce.

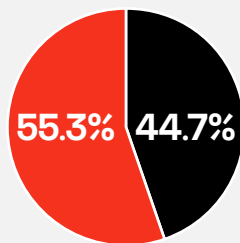


People of Science

The percentage of West Virginia's STEMM workforce without a bachelor's degree (55.3%) is greater than the national average (53%).

Less than a bachelor's degree

Bachelor's degree and higher



317,000

STEMM Professionals

35%

of the state's workforce in STEMM jobs

14th

largest STEMM workforce in the nation

STEMM Drives West Virginia's Economy

\$45.1 Billion

amount STEMM contributes to the state's economy

42.6%

of the state's GDP comes from STEMM

STEMM Produces Tax Revenue

\$6.7 Billion

Federal tax revenue generated by STEMM in West Virginia

\$2.9 Billion

State and local tax revenue generated by STEMM in West Virginia

Wisconsin

The STEM sector significantly bolsters Wisconsin's economy, contributing 39.6% to the state's GDP, and placing it 21st nationwide. Approximately 1,345,594 professionals are employed in STEM fields, making up 35.2% of the total workforce.

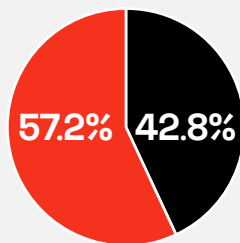


People of Science

The percentage of Wisconsin's STEM workforce without a bachelor's degree (57.2%) is greater than the national average (53%).

Less than a bachelor's degree

Bachelor's degree and higher



1.3 Million

STEMM Professionals

35.2%

of the state's workforce in STEM jobs

10th

largest STEM workforce in the nation

STEMM Drives Wisconsin's Economy

\$171.7 Billion

amount STEM contributes to the state's economy

39.6%

of the state's GDP comes from STEM

STEMM Produces Tax Revenue

\$29.5 Billion

Federal tax revenue generated by STEM in Wisconsin

\$12.8 Billion

State and local tax revenue generated by STEM in Wisconsin

Wyoming

STEMM drives Wyoming's economy, contributing 42.8% to the state's GDP, and placing it third nationwide. Approximately 150,271 professionals are employed in STEMM fields, making up 33.9% of the total workforce.

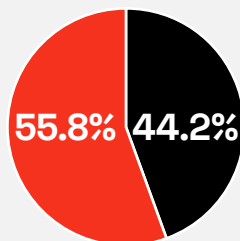
3rd
highest STEMM-driven GDP share in the country

People of Science

The percentage of Wyoming's STEMM workforce without a bachelor's degree (55.8%) is greater than the national average (53%).

Less than a bachelor's degree

Bachelor's degree and higher



150,300

STEMM Professionals

33.9%

of the state's workforce in STEMM jobs

28th

largest STEMM workforce in the nation

STEMM Drives Wyoming's Economy

\$22.5 Billion

amount STEMM contributes to the state's economy

42.8%

of the state's GDP comes from STEMM

STEMM Produces Tax Revenue

\$3 Billion

Federal tax revenue generated by STEMM in Wyoming

\$1.3 Billion

State and local tax revenue generated by STEMM in Wyoming

Methodology & Data Sources

Introduction

Science is US, an initiative of the American Association for the Advancement of Science (“AAAS”), engaged FTI Consulting (“FTI”) to analyze the economic impact of science on the U.S. and state economies.

FTI employed the following steps to complete the analysis:

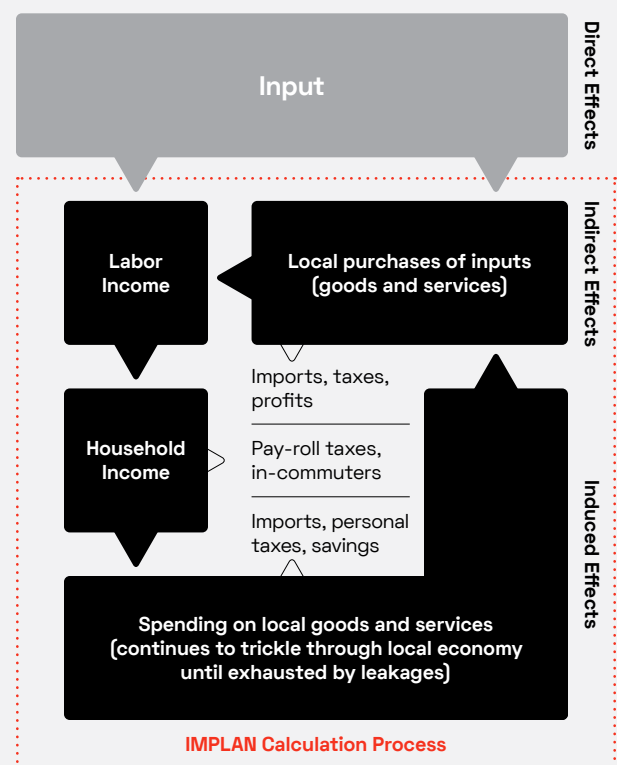
- Securing IMPLAN¹ models for the U.S. economy, the 50 state economies and the District of Columbia economy
- Gathering and developing inputs and parameters to use in the study, including:
 - Extracting and processing IMPLAN data for employment, output, gross domestic product (“GDP”), and labor income
 - Gathering and indexing data from the Bureau of Labor Statistics (“BLS”) regarding the occupations present in different economic sectors and the distribution of educational attainment by occupation
 - Developing IMPLAN employment by occupation by matching IMPLAN sectors with the BLS sectors
 - Developing IMPLAN employment by occupation and educational attainment by merging the educational attainment level by occupation as reported by the BLS
- Classifying which occupations are “STEMM² jobs” based on the determinations made for the 2023 study and suggested changes agreed upon by Science is US and FTI
- Reconciling this data to produce a single, consistent mapping of the 215.7 million U.S. jobs within the most recent IMPLAN database for calendar year 2023 across 51 regions, 528 IMPLAN sectors, 832 occupations, and seven levels of educational attainment, and STEMM vs. non-STEMM job classifications
- Running the direct economic impact of STEMM employment through the IMPLAN model to determine the indirect, induced, and total economic and fiscal impact of STEMM

IMPLAN Model

IMPLAN is an input-output (“IO”) model of national and regional economies for tracking the flow of dollars throughout an economy between different economic sectors, households, and the public sector. IMPLAN looks at the linkages between economic sectors through sectoral supply chains to measure the “indirect” effect from spending. IMPLAN also looks at transactions between economic sectors and households through labor supply and consumer expenditures to measure the “induced” effect from increased consumer expenditures on the economy.

Figure 1 shows the calculation process underlying IMPLAN. Direct employment or expenditures, such as STEMM jobs, create an indirect effect throughout supply chains and support the income earned by households to produce the induced effect of consumer spending.

Figure 1
IMPLAN Calculation Flowchart



Analyzing IMPLAN Data

FTI used IMPLAN as the data source for U.S. employment by economic sector and state and as the model tool for the economic and fiscal impact analysis. The decision to source this data from IMPLAN instead of federal data sources came down to two important factors:

1. Most federal data sources only release regional data by economic sector at the level of the three- or four-digit NAICS.⁴ IMPLAN, however, provides data across 528 economic sectors for all the 51 regions under consideration.
2. Federal data sources “suppress” certain datapoints to protect the confidentiality of certain survey respondents, such as for the mining sector in states or counties where only one mining operation exists. IMPLAN deploys an unsuppression methodology for estimating this data, which provides a complete data for this analysis.

IMPLAN uses several data sources to make its estimates. These data sources include the BLS and its Quarterly Census of Employment and Wages (“QCEW”), the U.S. Bureau of Economic Analysis (“BEA”) and its Regional Economic Accounts, and the U.S. Census Bureau and its County Business Patterns. IMPLAN checks these data sources against one another and reconciles them with the National Income Product Accounts (“NIPA”) to ensure consistency and quality of the data. Because such estimates are proprietary, IMPLAN data will not match exactly with any one public source.

“BEA Jobs” v. “BLS Jobs”

There are two contrasting definitions of a “job” in federal data:

1. **BEA Jobs:** In BEA data, a job is a “task” or “roster slot” offered by an employer (and this includes jobs “offered” by the self-employed to themselves), **not a full-time equivalent of an employed worker**. For instance, if a worker held two part-time jobs, then that counts as two jobs in the BEA data tables. The BEA definition of a job is more comprehensive than the BLS definition, and thus IMPLAN and most other economic models use the BEA definition.

2. **BLS Jobs:** In BLS data, a job is a person working. For instance, to return to the example from the previous paragraph, a single worker holding two part-time jobs counts as one in the BLS data tables. The public, the media, various stakeholders, and even some economists are often inconsistent with their terminology when describing a “job.”

The technical distinction between these definitions is crucial because the BEA definition used here is different from that of a widely quoted BLS report on monthly jobs. According to the “monthly jobs report,” as it is called by the press, there are currently 163.9 million U.S. residents with a job.⁵ Regular BLS updates to this data, such as an increase of 143,000 non-farm payroll employment in January 2025,⁶ receive media attention, have weighty political impacts, and influence Federal Reserve policy decision.⁷

BLS releases have the advantage of being close to real-time data. The releases for one month (e.g., December 2024) are released a couple of weeks into the next month (e.g., the BLS release for December 2024 was on January 23, 2025). Additionally, the BLS definition has the advantage of looking at labor markets from the perspective of jobseekers, policymakers, and politicians.

While the BLS figures receive more media interest, they are less precise than the BEA numbers. The BLS numbers do not include self-employed workers, many workers at nonprofits, and other workers not participating in the Social Security system, such as railroad workers.⁸ Not including these types of workers allows BLS to be faster, but BEA takes the time to include them.

The BEA definition of a job (and thus the IMPLAN data), therefore, provides a more complete view of the labor market even though there is a lag in the data of about a year.⁹

Mapping Employment by Economic Sector by Occupation

Total U.S. jobs of 215.7 million were transformed from jobs by economic sector and region in IMPLAN into jobs by economic sector, region, and occupation by using an industry-occupation matrix (“IOM”). An IOM for the U.S. economy is made available by the BLS.¹⁰ An IOM shows the mixture of occupations in an economic sector. For example, according to the BLS IOM, occupations making up the largest share of the workforce of the commercial logging sector include the following:

Table 1
IOM for the Commercial Logging
Economic Sector

Rank	Occupation	Share
1	Logging equipment operators	40.8%
2	Heavy and tractor-trailer truck drivers	17.4%
3	Fallers	6.7%
4	First-line supervisors of farming, fishing, and forestry workers	5.5%
5	Logging workers, all other	4.5%
6	Office clerks, general	4.0%
7	Mobile heavy equipment mechanics, except engines	2.9%
8	Bookkeeping, accounting, and auditing clerks	2.2%
9	Secretaries and administrative assistants	2.0%
10	General and operations managers	1.6%
11	Foresters	1.4%
12	Sawing machine setters, operators, and tenders, wood	1.2%
13	Operating engineers and other construction equipment operators	1.0%
14	Laborers and freight, stock, and material movers, hand	1.0%
	ALL OTHERS LESS THAN 1% OF TOTAL	7.8%
	TOTAL	100%

The occupations towards the top of the list in Table 1 make intuitive sense to be strongly associated with commercial logging operations. These include logging equipment operators, truck drivers, and specialized logging-related workers and managers. The occupation mixture for commercial logging also includes some support occupations generally present across most economic sectors, such as the occupations related to accounting and clerical work or administration.

The occupations in the IOM from BLS did not correspond exactly with the 528 economic sectors within the IMPLAN dataset. As such, they were mapped to their closest match, which was generally at either the four-digit or the five-digit NAICS level compared to IMPLAN’s six-digit codes.

Mapping Occupations by Educational Attainment

BLS Table 5.3¹¹ was used to further map occupations by educational attainment. This table shows the distribution of educational attainment associated with each occupation in a manner similar to how the IOM shows the distribution of occupation by economic sector. For example, according to BLS Table 5.3, 71.6% of “chief executives” have a bachelor’s degree or higher. In comparison, only 41.6% of all U.S. workers have earned a bachelor’s degree or higher during their education.

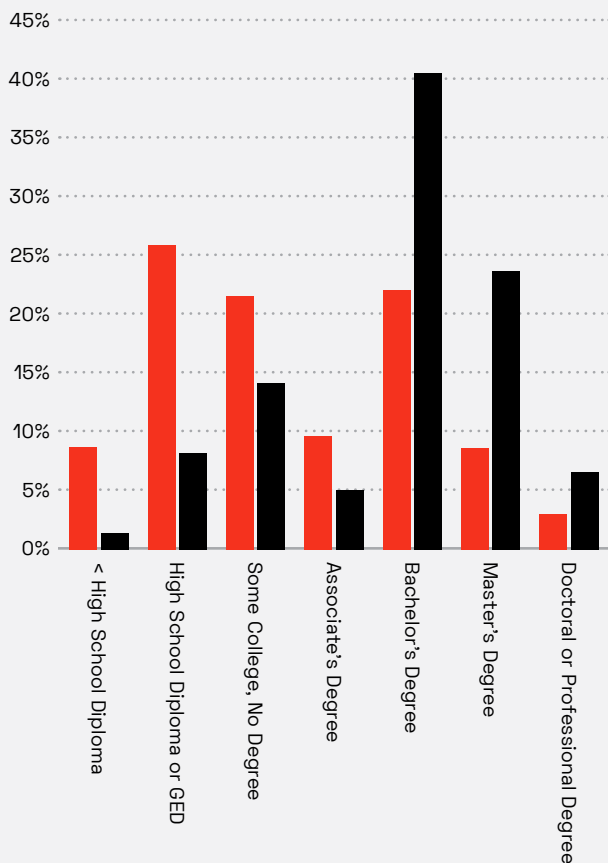
The full distribution of educational attainment includes seven categories:

1. < High School Diploma
2. High School Diploma or GED
3. Some College, No Degree
4. Associate’s Degree
5. Bachelor’s Degree
6. Master’s Degree
7. Doctoral or Professional Degree

To continue the previous example, Figure 2 shows educational attainment based on these categories for chief executives and U.S. workers generally. As intuition might lead one to expect, chief executives tend to have higher educational attainment than the average occupation.

Figure 2
Educational Attainment of U.S. Chief Executives and U.S. Workers Generally (%)

■ All U.S. Occupations
 ■ Chief Executives

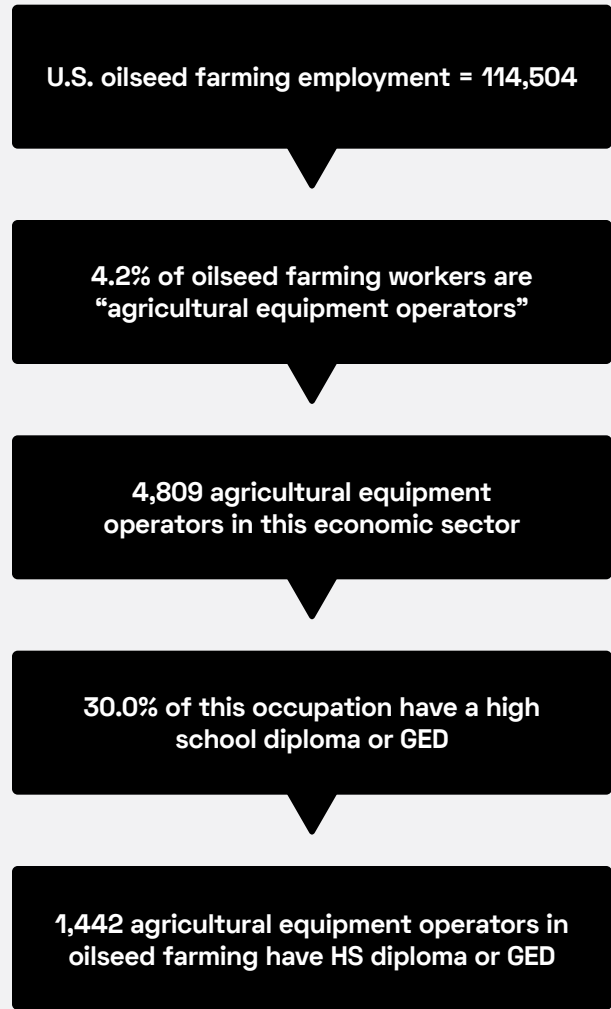


This process was repeated across 832 occupations for the seven levels of educational attainment. This was then combined with the economic data by sector and STEM definition.

Reconciling Jobs by Sector, Occupation, and Educational Attainment

The two described processes yielded two datasets: (1.) occupations by IMPLAN sector and (2.) educational attainment by occupation. To reconcile and merge these datasets, the occupations – tagged by their sectors – were allocated down to their educational attainment using data from the second dataset. Figure 3 provides a specific example of this process.

Figure 3
Example of Creating the Joined Dataset by Sector, Occupation, and Educational Attainment¹²



Qualifying as a “STEMM Job”

After tagging all 215.7 million U.S. jobs by economic sector, occupation, and educational attainment, FTI worked with Science is US to define the most credible, defensible, and sensible methodology to define a “STEMM job.” FTI and Science is US designated the STEMM jobs based on their occupational job description and level of training instead of just the economic sector in which they reside.

This means the daily tasks of the occupation make a job a STEMM job. For instance, many occupations in sectors considered high-STEMM, such as the scientific research sector are self-evidently STEMM (e.g., medical scientists, software developers, natural science managers, biological technicians, etc.). However, others are not, such as sales managers and janitorial workers. Similarly, STEMM workers in sectors considered low-STEMM should be counted as STEMM too, such as IT professionals building and maintaining computer infrastructure at a law firm.

FTI and Science is US reviewed the list of 832 occupations and designated 420 of them as “STEMM jobs.” This definition broadens and deepens the universe of STEMM workers to include many “practical” workers who might only have on-the-job training or two-year degrees or certifications such as IT workers or production workers in manufacturing working alongside engineers.

Simulating the Economic and Fiscal Impacts

IMPLAN was used to simulate the total economic impact of STEMM. The direct STEMM employment from the previous analysis and IMPLAN’s “net” indirect and induced multipliers by state and economic sector were used to calculate the economic impact of STEMM. The “net” multipliers were calculated by reducing IMPLAN’s inherent multipliers by 34.1% (the same value as percentage of direct STEMM jobs across the U.S.) to remove any double counting of STEMM jobs.

The following example details the steps taken for each sector and occupation:

- The U.S. oilseed farming economic sector has 114,504 jobs
- Oilseed farming has 9,620 direct STEMM jobs
- The “raw” IMPLAN simulation produces an impact of 10,280 indirect jobs and 11,969 induced jobs in oilseed farming being supported by STEMM jobs across all sectors
- The indirect and induced jobs are reduced by 34.1%
- This leaves 6,774 indirect jobs and 7,888 induced jobs supported by STEMM
- The same calculation was made for the other measurements of activity, such as output, GDP, labor income, federal tax revenues, and state and local tax revenues

Notes

¹ <https://implan.com/>

² Science, Technology, Engineering, Mathematics, and Medicine

³ For the remainder of this document, “state” refers 51 regions inclusive of the District of Columbia

⁴ <https://www.census.gov/naics/>

⁵ <https://www.bls.gov/news.release/empsit.t01.htm>

⁶ <https://www.bls.gov/news.release/empsit.nr0.htm>

⁷ <https://www.washingtonpost.com/business/2025/02/07/january-jobs-unemployment-rate/>

⁸ Railroad workers have a separate system called the U.S. Railroad Retirement Board, <https://rrb.gov/>

⁹ <https://www.bea.gov/resources/methodologies/nipa-handbook/pdf/chapter-03.pdf>

¹⁰ <https://www.bls.gov/emp/ind-occ-matrix/matrix.xlsx>

¹¹ <https://www.bls.gov/emp/tables/educational-attainment.htm>

¹² $114,504 * 4.2% * 30.0% = 1,442$ of jobs in oilseed farming are agricultural equipment operators with a high school diploma or equivalent

Appendix

Table 1
Impacts of STEMM on
the U.S. Economy

Metric	Direct STEMM	Indirect	Induced	Total Supported by STEMM	U.S. Economy	Direct STEMM Percent of U.S. Economy	Total STEMM Supported % of U.S. Economy
Employment	73,627,496	34,568,463	47,119,564	155,315,523	215,748,000	34.1%	72.0%
Sales Output	\$20,076,877,578,508	\$9,625,962,839,756	\$9,780,189,478,489	\$39,483,029,896,754	\$47,304,875,221,543	42.4%	83.5%
Gross Domestic Product	\$10,866,834,340,914	\$4,966,001,631,807	\$5,814,905,649,345	\$21,647,741,622,066	\$27,720,707,000,000	39.2%	78.1%
Labor Income	\$6,921,169,312,427	\$2,930,905,773,810	\$3,142,623,435,337	\$12,994,698,521,575	\$16,158,563,000,000	42.8%	80.4%

Table 2
STEMM Contributions to Federal,
State and Local Tax Revenues

Metric	Direct STEMM	Indirect	Induced	Total Supported by STEMM
Federal Tax Revenues	\$1,621,156,825,453	\$697,998,736,311	\$773,427,501,411	\$3,092,583,063,176
State and Local Tax Revenues	\$715,236,184,993	\$389,484,812,755	\$571,764,245,087	\$1,676,485,242,834

Table 3
STEMM Jobs Pay More, are More Productive
and Contribute More to U.S. GDP

Metric	Direct STEMM Employment	Non-STEMM Employment	U.S. Total (STEMM and Non-STEMM)
Mean Sales Output per Job	\$272,682	\$129,431	\$219,260
Mean GDP per Job	\$147,592	\$100,492	\$128,487
Mean Labor Income per Job	\$94,003	\$52,354	\$74,896

Table 4
Percent of U.S. Workers by Degree Level
who are STEMM Professionals

U.S. Employment	< High School Diploma	High School Diploma or GED	Some College, No Degree	Associate's Degree	Bachelor's Degree	Master's Degree	Doctoral or Professional Degree
STEM Jobs	3,427,765	13,849,761	13,365,924	8,372,031	21,056,505	9,487,085	4,068,425
Non-STEM Jobs	14,983,247	41,381,918	30,890,262	12,700,349	28,704,079	10,459,632	3,001,017
Total	18,411,012	55,231,679	44,256,185	21,072,380	49,760,584	19,946,718	7,069,442
STEM (%)	18.6%	25.1%	30.2%	39.7%	42.3%	47.6%	57.5%
Non-STEM (%)	81.4%	74.9%	69.8%	60.3%	57.7%	52.4%	42.5%

Table 5
STEMM Professionals by Level of
Educational Attainment

Educational Attainment	STEMM Jobs	Non-STEMM Jobs	Total U.S. Jobs	Percent STEMM Jobs	Percent Non-STEMM Jobs	Percent Total U.S. Jobs
< High School Diploma	3,427,765	14,983,247	18,411,012	4.7%	10.5%	8.5%
High School Diploma or GED	13,849,761	41,381,918	55,231,679	18.8%	29.1%	25.6%
Some College, No Degree	13,365,924	30,890,262	44,256,185	18.2%	21.7%	20.5%
Associate's Degree	8,372,031	12,700,349	21,072,380	11.4%	8.9%	9.8%
Bachelor's Degree	21,056,505	28,704,079	49,760,584	28.6%	20.2%	23.1%
Master's Degree	9,487,085	10,459,632	19,946,718	12.9%	7.4%	9.2%
Doctoral or Professional Degree	4,068,425	3,001,017	7,069,442	5.5%	2.1%	3.3%
Total U.S. Employment	73,627,496	142,120,504	215,748,000	100%	100%	100%
Workers with Less than Bachelor's	39,015,481	99,955,775	138,971,257	53.0%	70.3%	64.4%
Workers with a Bachelor's or more	34,612,015	42,164,728	76,776,743	47.0%	29.7%	35.6%

Table 6
STEMM Contributions to State GDP (Ranked)

Rank	State	Direct STEMM Contribution to State GDP	Percent of State GDP Directly Attributed to STEMM
1	AK	\$30,597,394,535	44.0%
2	MA	\$323,946,584,320	42.8%
3	IN	\$22,488,629,882	42.8%
4	WY	\$45,127,463,920	42.6%
5	DC	\$215,776,401,446	42.3%
6	WV	\$1,088,392,495,385	42.1%
7	TX	\$134,950,538,126	41.8%
8	MI	\$108,665,029,446	41.0%
9	CT	\$60,653,058,684	41.0%
10	OK	\$131,289,320,813	40.9%
11	AL	\$283,103,098,552	40.8%
12	WA	\$363,641,630,055	40.7%
13	ND	\$142,508,438,245	40.7%
14	NM	\$324,536,754,703	40.4%
15	VA	\$31,028,029,032	40.4%
16	CA	\$73,542,351,026	40.4%
17	NC	\$394,415,151,393	39.8%
18	OH	\$1,541,637,482,799	39.7%
19	LA	\$286,627,852,345	39.7%
20	MD	\$112,218,847,474	39.7%
21	PA	\$171,702,125,263	39.6%
22	WI	\$90,250,795,905	39.5%
23	NH	\$210,489,745,274	39.5%
24	MN	\$310,726,024,758	39.4%
25	UT	\$191,790,659,045	39.2%

Table 6
STEMM Contributions to State GDP (Ranked)
 Continued

Rank	State	Direct STEMM Contribution to State GDP	Percent of State GDP Directly Attributed to STEMM
26	CO	\$46,124,376,239	38.9%
27	KY	\$208,224,450,361	38.9%
28	KS	\$110,100,728,738	38.6%
29	MO	\$166,627,450,085	38.5%
30	IA	\$99,243,446,140	38.4%
31	TN	\$415,513,145,654	38.2%
32	IL	\$122,175,421,312	38.0%
33	AZ	\$306,570,724,806	37.9%
34	RI	\$201,553,747,129	37.9%
35	NJ	\$125,144,059,626	37.8%
36	GA	\$311,896,454,417	37.8%
37	SC	\$68,507,231,554	37.7%
38	MS	\$798,185,912,799	37.7%
39	NE	\$199,240,384,914	37.6%
40	OR	\$36,723,244,886	37.5%
41	NY	\$67,107,188,250	37.2%
42	DE	\$56,889,821,090	37.0%
43	AR	\$29,574,537,158	36.9%
44	MT	\$27,107,879,416	36.0%
45	SD	\$33,528,270,890	35.3%
46	ME	\$43,164,753,888	35.0%
47	VT	\$15,778,167,420	34.9%
48	ID	\$26,234,108,012	34.9%
49	FL	\$545,839,193,175	34.5%
50	HI	\$36,475,265,399	32.6%
51	NV	\$79,198,475,133	32.1%

Table 7
Direct STEMM Employment as a Percent
of State Employment (Ranked)

Rank	State	Direct STEMM Employment	STEMM Employment as a Percentage of Total State Employment
1	DC	338,194	36.6%
2	MI	2,174,433	36.5%
3	MA	1,830,635	36.4%
4	NH	337,850	36.0%
5	IN	1,490,281	35.7%
6	CT	859,445	35.5%
7	OH	2,632,823	35.4%
8	UT	846,760	35.4%
9	AL	1,022,413	35.3%
10	WI	1,345,594	35.2%
11	VA	2,006,814	35.2%
12	KS	702,272	35.1%
13	WA	1,703,798	35.0%
14	WV	317,064	35.0%
15	MD	1,387,431	35.0%
16	MN	1,367,877	34.9%
17	CO	1,491,060	34.9%
18	NC	2,330,844	34.5%
19	AK	162,868	34.5%
20	PA	2,800,621	34.4%
21	TX	6,914,600	34.4%
22	RI	232,784	34.4%
23	OK	839,727	34.3%
24	KY	925,575	34.2%
25	AZ	1,495,877	34.2%

Table 7
Direct STEMM Employment as a Percent
of State Employment (Ranked)
 Continued

Rank	State	Direct STEMM Employment	STEMM Employment as a Percentage of Total State Employment
26	MO	1,352,023	34.2%
27	SC	1,063,472	34.1%
28	WY	150,271	33.9%
29	TN	1,548,897	33.9%
30	NJ	2,022,439	33.9%
31	LA	943,893	33.8%
32	IL	2,779,174	33.8%
33	ND	201,440	33.7%
34	VT	148,681	33.7%
35	ME	297,611	33.7%
36	DE	221,407	33.6%
37	NM	393,306	33.6%
38	AR	594,912	33.5%
39	NE	461,691	33.4%
40	GA	2,350,559	33.3%
41	SD	218,577	33.3%
42	IA	706,865	33.3%
43	NY	4,352,948	33.2%
44	CA	8,467,444	33.1%
45	ID	401,358	33.0%
46	OR	893,672	33.0%
47	FL	4,796,750	32.9%
48	MS	549,454	32.7%
49	MT	243,416	32.1%
50	HI	285,119	30.9%
51	NV	624,481	29.7%

Table 8

Percent of STEMM Professionals without a Bachelor's Degree by State (Ranked)

Rank	State	Less than Bachelor's	Bachelor's or Higher
1	IN	58.5%	43.5%
2	WI	57.2%	47.5%
3	MS	57.1%	46.9%
4	KY	57.0%	43.5%
5	IA	56.8%	48.9%
6	ND	56.6%	49.3%
7	AL	56.5%	48.3%
8	AR	56.5%	49.7%
9	MI	56.4%	58.0%
10	SC	56.3%	47.5%
11	WY	55.8%	46.5%
12	OK	55.8%	49.5%
13	TN	55.8%	45.5%
14	OH	55.7%	46.5%
15	LA	55.6%	41.5%
16	SD	55.3%	43.2%
17	WV	55.3%	45.5%
18	MT	54.6%	43.0%
19	NV	54.6%	44.4%
20	ID	54.5%	46.3%
21	KS	54.5%	50.8%
22	NE	54.5%	51.4%
23	MO	54.2%	43.6%
24	OR	53.9%	46.3%
25	ME	53.7%	42.9%

Table 8

Percent of STEMM Professionals without a Bachelor's Degree by State (Ranked)

Continued

Rank	State	Less than Bachelor's	Bachelor's or Higher
26	MN	53.7%	45.8%
27	IL	53.5%	45.4%
28	GA	53.5%	45.5%
29	PA	53.4%	45.4%
30	NC	53.4%	47.1%
31	TX	53.3%	49.0%
32	AZ	53.1%	48.1%
33	NH	52.9%	50.3%
34	VT	52.6%	46.6%
35	FL	52.5%	43.4%
36	AK	52.5%	44.3%
37	NM	51.9%	44.2%
38	UT	51.9%	46.1%
39	RI	51.8%	46.6%
40	CT	51.7%	48.2%
41	CA	51.1%	43.7%
42	NJ	51.0%	44.7%
43	CO	50.7%	44.2%
44	HI	50.5%	46.7%
45	DE	50.3%	48.1%
46	WA	50.3%	47.4%
47	VA	49.9%	50.1%
48	NY	49.7%	49.7%
49	MD	49.2%	44.7%
50	MA	48.6%	42.8%
51	DC	42.0%	44.2%

Table 9
List of STEMM and Non-STEMM Occupations

ID #	SIC Code	Occupation	STEMM?
1	11-1011	Chief executives	NO
2	11-1021	General and operations managers	NO
3	11-1031	Legislators	NO
4	11-2011	Advertising and promotions managers	NO
5	11-2021	Marketing managers	NO
6	11-2022	Sales managers	NO
7	11-2032	Public relations managers	NO
8	11-2033	Fundraising managers	NO
9	11-3012	Administrative services managers	NO
10	11-3013	Facilities managers	NO
11	11-3021	Computer and information system managers	YES
12	11-3031	Financial managers	YES
13	11-3051	Industrial production managers	YES
14	11-3061	Purchasing managers	NO
15	11-3071	Transportation, storage, and distribution managers	NO
16	11-3111	Compensation and benefits managers	NO
17	11-3121	Human resources managers	NO
18	11-3131	Training and development managers	NO
19	11-9013	Farmers, ranchers, and other agricultural managers	NO
20	11-9021	Construction managers	NO
21	11-9031	Education and childcare administrators, preschool and daycare	NO
22	11-9032	Education administrators, kindergarten through secondary	NO
23	11-9033	Education administrators, postsecondary	NO
24	11-9039	Education administrators, all other	NO
25	11-9041	Architectural and engineering managers	YES
26	11-9051	Food service managers	NO

Table 9
List of STEMM and Non-STEM Occupations
 Continued

ID #	SIC Code	Occupation	STEMM?
27	11-9071	Gambling managers	NO
28	11-9072	Entertainment and recreation managers, except gambling	NO
29	11-9081	Lodging managers	NO
30	11-9111	Medical and health services managers	YES
31	11-9121	Natural sciences managers	YES
32	11-9131	Postmasters and mail superintendents	NO
33	11-9141	Property, real estate, and community association managers	NO
34	11-9151	Social and community service managers	NO
35	11-9161	Emergency management directors	NO
36	11-9171	Funeral home managers	NO
37	11-9179	Personal service managers, all other	NO
38	11-9199	Managers, all other	NO
39	13-1011	Agents and business managers of artists, performers, and athletes	NO
40	13-1020	Buyers and purchasing agents	NO
41	13-1031	Claims adjusters, examiners, and investigators	YES
42	13-1032	Insurance appraisers, auto damage	NO
43	13-1041	Compliance officers	NO
44	13-1051	Cost estimators	YES
45	13-1071	Human resources specialists	NO
46	13-1074	Farm labor contractors	NO
47	13-1075	Labor relations specialists	NO
48	13-1081	Logisticians	YES
49	13-1082	Project management specialists	YES
50	13-1111	Management analysts	YES
51	13-1121	Meeting, convention, and event planners	NO
52	13-1131	Fundraisers	NO

Table 9
List of STEMM and Non-STEM Occupations
 Continued

ID #	SIC Code	Occupation	STEMM?
53	13-1141	Compensation, benefits, and job analysis specialists	YES
54	13-1151	Training and development specialists	NO
55	13-1161	Market research analysts and marketing specialists	YES
56	13-1199	Business operations specialists, all other	YES
57	13-2011	Accountants and auditors	YES
58	13-2020	Property appraisers and assessors	YES
59	13-2031	Budget analysts	YES
60	13-2041	Credit analysts	YES
61	13-2051	Financial and investment analysts	YES
62	13-2052	Personal financial advisors	YES
63	13-2053	Insurance underwriters	YES
64	13-2054	Financial risk specialists	YES
65	13-2061	Financial examiners	YES
66	13-2071	Credit counselors	YES
67	13-2072	Loan officers	YES
68	13-2081	Tax examiners and collectors, and revenue agents	YES
69	13-2082	Tax preparers	YES
70	13-2099	Financial specialists, all other	YES
71	15-1211	Computer system analysts	YES
72	15-1212	Information security analysts	YES
73	15-1221	Computer and information research scientists	YES
74	15-1231	Computer network support specialists	YES
75	15-1232	Computer user support specialists	YES
76	15-1241	Computer network architects	YES
77	15-1242	Database administrators	YES
78	15-1243	Database architects	YES

Table 9
List of STEMM and Non-STEM Occupations
 Continued

ID #	SIC Code	Occupation	STEMM?
79	15-1244	Network and computer system administrators	YES
80	15-1251	Computer programmers	YES
81	15-1252	Software developers	YES
82	15-1253	Software quality assurance analysts and testers	YES
83	15-1254	Web developers	YES
84	15-1255	Web and digital interface designers	YES
85	15-1299	Computer occupations, all other	YES
86	15-2011	Actuaries	YES
87	15-2021	Mathematicians	YES
88	15-2031	Operations research analysts	YES
89	15-2041	Statisticians	YES
90	15-2051	Data scientists	YES
91	15-2099	Mathematical science occupations, all other	YES
92	17-1011	Architects, except landscape and naval	YES
93	17-1012	Landscape architects	NO
94	17-1021	Cartographers and photogrammetrists	YES
95	17-1022	Surveyors	YES
96	17-2011	Aerospace engineers	YES
97	17-2021	Agricultural engineers	YES
98	17-2031	Bioengineers and biomedical engineers	YES
99	17-2041	Chemical engineers	YES
100	17-2051	Civil engineers	YES
101	17-2061	Computer hardware engineers	YES
102	17-2071	Electrical engineers	YES
103	17-2072	Electronics engineers, except computer	YES
104	17-2081	Environmental engineers	YES

Table 9
List of STEMM and Non-STEM Occupations
 Continued

ID #	SIC Code	Occupation	STEMM?
105	17-2111	Health and safety engineers, except mining safety engineers and inspectors	YES
106	17-2112	Industrial engineers	YES
107	17-2121	Marine engineers and naval architects	YES
108	17-2131	Materials engineers	YES
109	17-2141	Mechanical engineers	YES
110	17-2151	Mining and geological engineers, including mining safety engineers	YES
111	17-2161	Nuclear engineers	YES
112	17-2171	Petroleum engineers	YES
113	17-2199	Engineers, all other	YES
114	17-3011	Architectural and civil drafters	YES
115	17-3012	Electrical and electronics drafters	YES
116	17-3013	Mechanical drafters	YES
117	17-3019	Drafters, all other	YES
118	17-3021	Aerospace engineering and operations technologists and technicians	YES
119	17-3022	Civil engineering technologists and technicians	YES
120	17-3023	Electrical and electronic engineering technologists and technicians	YES
121	17-3024	Electro-mechanical and mechatronics technologists and technicians	YES
122	17-3025	Environmental engineering technologists and technicians	YES
123	17-3026	Industrial engineering technologists and technicians	YES
124	17-3027	Mechanical engineering technologists and technicians	YES
125	17-3028	Calibration technologists and technicians	YES
126	17-3029	Engineering technologists and technicians, except drafters, all other	YES
127	17-3031	Surveying and mapping technicians	YES
128	19-1011	Animal scientists	YES
129	19-1012	Food scientists and technologists	YES
130	19-1013	Soil and plant scientists	YES

Table 9
List of STEMM and Non-STEM Occupations
 Continued

ID #	SIC Code	Occupation	STEMM?
131	19-1021	Biochemists and biophysicists	YES
132	19-1022	Microbiologists	YES
133	19-1023	Zoologists and wildlife biologists	YES
134	19-1029	Biological scientists, all other	YES
135	19-1031	Conservation scientists	YES
136	19-1032	Foresters	YES
137	19-1041	Epidemiologists	YES
138	19-1042	Medical scientists, except epidemiologists	YES
139	19-1099	Life scientists, all other	YES
140	19-2011	Astronomers	YES
141	19-2012	Physicists	YES
142	19-2021	Atmospheric and space scientists	YES
143	19-2031	Chemists	YES
144	19-2032	Materials scientists	YES
145	19-2041	Environmental scientists and specialists, including health	YES
146	19-2042	Geoscientists, except hydrologists and geographers	YES
147	19-2043	Hydrologists	YES
148	19-2099	Physical scientists, all other	YES
149	19-3011	Economists	YES
150	19-3022	Survey researchers	YES
151	19-3032	Industrial-organizational psychologists	YES
152	19-3033	Clinical and counseling psychologists	YES
153	19-3034	School psychologists	YES
154	19-3039	Psychologists, all other	YES
155	19-3041	Sociologists	YES
156	19-3051	Urban and regional planners	YES

Table 9
List of STEMM and Non-STEM Occupations
 Continued

ID #	SIC Code	Occupation	STEMM?
157	19-3091	Anthropologists and archeologists	YES
158	19-3092	Geographers	YES
159	19-3093	Historians	NO
160	19-3094	Political scientists	YES
161	19-3099	Social scientists and related workers, all other	YES
162	19-4012	Agricultural technicians	YES
163	19-4013	Food science technicians	YES
164	19-4021	Biological technicians	YES
165	19-4031	Chemical technicians	YES
166	19-4042	Environmental science and protection technicians, including health	YES
167	19-4043	Geological technicians, except hydrologic technicians	YES
168	19-4044	Hydrologic technicians	YES
169	19-4051	Nuclear technicians	YES
170	19-4061	Social science research assistants	YES
171	19-4071	Forest and conservation technicians	YES
172	19-4092	Forensic science technicians	YES
173	19-4099	Life, physical, and social science technicians, all other	YES
174	19-5011	Occupational health and safety specialists	YES
175	19-5012	Occupational health and safety technicians	YES
176	21-1012	Educational, guidance, and career counselors and advisors	NO
177	21-1013	Marriage and family therapists	NO
178	21-1015	Rehabilitation counselors	YES
179	21-1018	Substance abuse, behavioral disorder, and mental health counselors	YES
180	21-1019	Counselors, all other	NO
181	21-1021	Child, family, and school social workers	NO
182	21-1022	Healthcare social workers	NO

Table 9
List of STEMM and Non-STEM Occupations
 Continued

ID #	SIC Code	Occupation	STEMM?
183	21-1023	Mental health and substance abuse social workers	NO
184	21-1029	Social workers, all other	NO
185	21-1091	Health education specialists	YES
186	21-1092	Probation officers and correctional treatment specialists	NO
187	21-1093	Social and human service assistants	NO
188	21-1094	Community health workers	YES
189	21-1099	Community and social service specialists, all other	NO
190	21-2011	Clergy	NO
191	21-2021	Directors, religious activities, and education	NO
192	21-2099	Religious workers, all other	NO
193	23-1011	Lawyers	NO
194	23-1012	Judicial law clerks	NO
195	23-1021	Administrative law judges, adjudicators, and hearing officers	NO
196	23-1022	Arbitrators, mediators, and conciliators	NO
197	23-1023	Judges, magistrate judges, and magistrates	NO
198	23-2011	Paralegals and legal assistants	NO
199	23-2093	Title examiners, abstractors, and searchers	NO
200	23-2099	Legal support workers, all other	NO
201	25-1011	Business teachers, postsecondary	YES
202	25-1021	Computer science teachers, postsecondary	YES
203	25-1022	Mathematical science teachers, postsecondary	YES
204	25-1031	Architecture teachers, postsecondary	YES
205	25-1032	Engineering teachers, postsecondary	YES
206	25-1041	Agricultural sciences teachers, postsecondary	YES
207	25-1042	Biological science teachers, postsecondary	YES
208	25-1043	Forestry and conservation science teachers, postsecondary	YES

Table 9
List of STEMM and Non-STEM Occupations
 Continued

ID #	SIC Code	Occupation	STEMM?
209	25-1051	Atmospheric, earth, marine, and space sciences teachers, postsecondary	YES
210	25-1052	Chemistry teachers, postsecondary	YES
211	25-1053	Environmental science teachers, postsecondary	YES
212	25-1054	Physics teachers, postsecondary	YES
213	25-1061	Anthropology and archeology teachers, postsecondary	YES
214	25-1062	Area, ethnic, and cultural studies teachers, postsecondary	NO
215	25-1063	Economics teachers, postsecondary	YES
216	25-1064	Geography teachers, postsecondary	YES
217	25-1065	Political science teachers, postsecondary	YES
218	25-1066	Psychology teachers, postsecondary	YES
219	25-1067	Sociology teachers, postsecondary	NO
220	25-1069	Social sciences teachers, postsecondary, all other	YES
221	25-1071	Health specialties teachers, postsecondary	YES
222	25-1072	Nursing instructors and teachers, postsecondary	YES
223	25-1081	Education teachers, postsecondary	NO
224	25-1082	Library science teachers, postsecondary	NO
225	25-1111	Criminal justice and law enforcement teachers, postsecondary	NO
226	25-1112	Law teachers, postsecondary	NO
227	25-1113	Social work teachers, postsecondary	NO
228	25-1121	Art, drama, and music teachers, postsecondary	NO
229	25-1122	Communications teachers, postsecondary	NO
230	25-1123	English language and literature teachers, postsecondary	NO
231	25-1124	Foreign language and literature teachers, postsecondary	NO
232	25-1125	History teachers, postsecondary	NO
233	25-1126	Philosophy and religion teachers, postsecondary	NO
234	25-1192	Family and consumer sciences teachers, postsecondary	NO

Table 9
List of STEMM and Non-STEM Occupations
 Continued

ID #	SIC Code	Occupation	STEMM?
235	25-1193	Recreation and fitness studies teachers, postsecondary	NO
236	25-1194	Career/technical education teachers, postsecondary	YES
237	25-1199	Postsecondary teachers, all other	NO
238	25-2011	Preschool teachers, except special education	NO
239	25-2012	Kindergarten teachers, except special education	NO
240	25-2021	Elementary school teachers, except special education	NO
241	25-2022	Middle school teachers, except special and career/technical education	NO
242	25-2023	Career/technical education teachers, middle school	YES
243	25-2031	Secondary school teachers, except special and career/technical education	NO
244	25-2032	Career/technical education teachers, secondary school	YES
245	25-2051	Special education teachers, preschool	NO
246	25-2052	Special education teachers, kindergarten, and elementary school	NO
247	25-2057	Special education teachers, middle school	NO
248	25-2058	Special education teachers, secondary school	NO
249	25-2059	Special education teachers, all other	NO
250	25-3011	Adult basic education, adult secondary education, and English as a second language instructors	NO
251	25-3021	Self-enrichment teachers	NO
252	25-3031	Substitute teachers, short-term	NO
253	25-3041	Tutors	NO
254	25-3099	Teachers and instructors, all other	NO
255	25-4011	Archivists	NO
256	25-4012	Curators	NO
257	25-4013	Museum technicians and conservators	YES
258	25-4022	Librarians and media collections specialists	NO
259	25-4031	Library technicians	NO
260	25-9021	Farm and home management educators	NO

Table 9
List of STEMM and Non-STEM Occupations
 Continued

ID #	SIC Code	Occupation	STEMM?
261	25-9031	Instructional coordinators	NO
262	25-9044	Teaching assistants, postsecondary	NO
263	25-9045	Teaching assistants, except postsecondary	NO
264	25-9099	Educational instruction and library workers, all other	NO
265	27-1011	Art directors	NO
266	27-1012	Craft artists	NO
267	27-1013	Fine artists, including painters, sculptors, and illustrators	NO
268	27-1014	Special effects artists and animators	NO
269	27-1019	Artists and related workers, all other	NO
270	27-1021	Commercial and industrial designers	NO
271	27-1022	Fashion designers	NO
272	27-1023	Floral designers	NO
273	27-1024	Graphic designers	NO
274	27-1025	Interior designers	NO
275	27-1026	Merchandise displayers and window trimmers	NO
276	27-1027	Set and exhibit designers	NO
277	27-1029	Designers, all other	NO
278	27-2011	Actors	NO
279	27-2012	Producers and directors	NO
280	27-2021	Athletes and sports competitors	NO
281	27-2022	Coaches and scouts	NO
282	27-2023	Umpires, referees, and other sports officials	NO
283	27-2031	Dancers	NO
284	27-2032	Choreographers	NO
285	27-2041	Music directors and composers	NO
286	27-2042	Musicians and singers	NO

Table 9
List of STEMM and Non-STEM Occupations
 Continued

ID #	SIC Code	Occupation	STEMM?
287	27-2091	Disc jockeys, except radio	NO
288	27-2099	Entertainers and performers, sports, and related workers, all other	NO
289	27-3011	Broadcast announcers and radio disc jockeys	NO
290	27-3023	News analysts, reporters, and journalists	NO
291	27-3031	Public relations specialists	NO
292	27-3041	Editors	NO
293	27-3042	Technical writers	YES
294	27-3043	Writers and authors	NO
295	27-3091	Interpreters and translators	NO
296	27-3092	Court reporters and simultaneous captioners	NO
297	27-3099	Media and communication workers, all other	NO
298	27-4011	Audio and video technicians	YES
299	27-4012	Broadcast technicians	YES
300	27-4014	Sound engineering technicians	YES
301	27-4015	Lighting technicians	YES
302	27-4021	Photographers	NO
303	27-4031	Camera operators, television, video, and film	NO
304	27-4032	Film and video editors	NO
305	27-4099	Media and communication equipment workers, all other	NO
306	29-1011	Chiropractors	YES
307	29-1021	Dentists, general	YES
308	29-1022	Oral and maxillofacial surgeons	YES
309	29-1023	Orthodontists	YES
310	29-1024	Prosthodontists	YES
311	29-1029	Dentists, all other specialists	YES
312	29-1031	Dietitians and nutritionists	YES

Table 9
List of STEMM and Non-STEM Occupations
 Continued

ID #	SIC Code	Occupation	STEMM?
313	29-1041	Optometrists	YES
314	29-1051	Pharmacists	YES
315	29-1071	Physician assistants	YES
316	29-1081	Podiatrists	YES
317	29-1122	Occupational therapists	YES
318	29-1123	Physical therapists	YES
319	29-1124	Radiation therapists	YES
320	29-1125	Recreational therapists	YES
321	29-1126	Respiratory therapists	YES
322	29-1127	Speech-language pathologists	YES
323	29-1128	Exercise physiologists	YES
324	29-1129	Therapists, all other	YES
325	29-1131	Veterinarians	YES
326	29-1141	Registered nurses	YES
327	29-1151	Nurse anesthetists	YES
328	29-1161	Nurse midwives	YES
329	29-1171	Nurse practitioners	YES
330	29-1181	Audiologists	YES
331	29-1211	Anesthesiologists	YES
332	29-1212	Cardiologists	YES
333	29-1213	Dermatologists	YES
334	29-1214	Emergency medicine physicians	YES
335	29-1215	Family medicine physicians	YES
336	29-1216	General internal medicine physicians	YES
337	29-1217	Neurologists	YES
338	29-1218	Obstetricians and gynecologists	YES

Table 9
List of STEMM and Non-STEM Occupations
 Continued

ID #	SIC Code	Occupation	STEMM?
339	29-1221	Pediatricians, general	YES
340	29-1222	Physicians, pathologists	YES
341	29-1223	Psychiatrists	YES
342	29-1224	Radiologists	YES
343	29-1229	Physicians, all other	YES
344	29-1241	Ophthalmologists, except pediatric	YES
345	29-1242	Orthopedic surgeons, except pediatric	YES
346	29-1243	Pediatric surgeons	YES
347	29-1249	Surgeons, all other	YES
348	29-1291	Acupuncturists	NO
349	29-1292	Dental hygienists	YES
350	29-1299	Healthcare diagnosing or treating practitioners, all other	YES
351	29-2010	Clinical laboratory technologists and technicians	YES
352	29-2031	Cardiovascular technologists and technicians	YES
353	29-2032	Diagnostic medical sonographers	YES
354	29-2033	Nuclear medicine technologists	YES
355	29-2034	Radiologic technologists and technicians	YES
356	29-2035	Magnetic resonance imaging technologists	YES
357	29-2036	Medical dosimetrists	YES
358	29-2042	Emergency medical technicians	YES
359	29-2043	Paramedics	YES
360	29-2051	Dietetic technicians	YES
361	29-2052	Pharmacy technicians	YES
362	29-2053	Psychiatric technicians	YES
363	29-2055	Surgical technologists	YES
364	29-2056	Veterinary technologists and technicians	YES

Table 9
List of STEMM and Non-STEM Occupations
 Continued

ID #	SIC Code	Occupation	STEMM?
365	29-2057	Ophthalmic medical technicians	YES
366	29-2061	Licensed practical and licensed vocational nurses	YES
367	29-2072	Medical records specialists	YES
368	29-2081	Opticians, dispensing	YES
369	29-2091	Orthotists and prosthetists	YES
370	29-2092	Hearing aid specialists	YES
371	29-2099	Health technologists and technicians, all other	YES
372	29-9021	Health information technologists and medical registrars	YES
373	29-9091	Athletic trainers	YES
374	29-9092	Genetic counselors	YES
375	29-9093	Surgical assistants	YES
376	29-9099	Healthcare practitioners and technical workers, all other	YES
377	31-1120	Home health and personal care aides	NO
378	31-1131	Nursing assistants	YES
379	31-1132	Orderlies	NO
380	31-1133	Psychiatric aides	YES
381	31-2011	Occupational therapy assistants	YES
382	31-2012	Occupational therapy aides	YES
383	31-2021	Physical therapist assistants	YES
384	31-2022	Physical therapist aides	YES
385	31-9011	Massage therapists	YES
386	31-9091	Dental assistants	YES
387	31-9092	Medical assistants	YES
388	31-9093	Medical equipment preparers	YES
389	31-9094	Medical transcriptionists	YES
390	31-9095	Pharmacy aides	YES

Table 9
List of STEMM and Non-STEM Occupations
 Continued

ID #	SIC Code	Occupation	STEMM?
391	31-9096	Veterinary assistants and laboratory animal caretakers	YES
392	31-9097	Phlebotomists	YES
393	31-9099	Healthcare support workers, all other	YES
394	33-1011	First-line supervisors of correctional officers	NO
395	33-1012	First-line supervisors of police and detectives	NO
396	33-1021	First-line supervisors of firefighting and prevention workers	NO
397	33-1091	First-line supervisors of security workers	NO
398	33-1099	First-line supervisors of protective service workers, all other	NO
399	33-2011	Firefighters	NO
400	33-2021	Fire inspectors and investigators	YES
401	33-2022	Forest fire inspectors and prevention specialists	YES
402	33-3011	Bailiffs	NO
403	33-3012	Correctional officers and jailers	NO
404	33-3021	Detectives and criminal investigators	NO
405	33-3031	Fish and game wardens	NO
406	33-3041	Parking enforcement workers	NO
407	33-3051	Police and sheriff's patrol officers	NO
408	33-3052	Transit and railroad police	NO
409	33-9011	Animal control workers	NO
410	33-9021	Private detectives and investigators	NO
411	33-9031	Gambling surveillance officers and gambling investigators	NO
412	33-9032	Security guards	NO
413	33-9091	Crossing guards and flaggers	NO
414	33-9092	Lifeguards, ski patrol, and other recreational protective service workers	NO
415	33-9093	Transportation security screeners	NO
416	33-9094	School bus monitors	NO

Table 9
List of STEMM and Non-STEM Occupations
 Continued

ID #	SIC Code	Occupation	STEMM?
417	33-9099	Protective service workers, all other	NO
418	35-1011	Chefs and head cooks	NO
419	35-1012	First-line supervisors of food preparation and serving workers	NO
420	35-2011	Cooks, fast food	NO
421	35-2012	Cooks, institution, and cafeteria	NO
422	35-2013	Cooks, private household	NO
423	35-2014	Cooks, restaurant	NO
424	35-2015	Cooks, short order	NO
425	35-2019	Cooks, all other	NO
426	35-2021	Food preparation workers	NO
427	35-3011	Bartenders	NO
428	35-3023	Fast food and counter workers	NO
429	35-3031	Waiters and waitresses	NO
430	35-3041	Food servers, non-restaurant	NO
431	35-9011	Dining room and cafeteria attendants and bartender helpers	NO
432	35-9021	Dishwashers	NO
433	35-9031	Hosts and hostesses, restaurant, lounge, and coffee shop	NO
434	35-9099	Food preparation and serving related workers, all other	NO
435	37-1011	First-line supervisors of housekeeping and janitorial workers	NO
436	37-1012	First-line supervisors of landscaping, lawn service, and groundskeeping workers	NO
437	37-2011	Janitors and cleaners, except maids and housekeeping cleaners	NO
438	37-2012	Maids and housekeeping cleaners	NO
439	37-2019	Building cleaning workers, all other	NO
440	37-2021	Pest control workers	NO
441	37-3011	Landscaping and groundskeeping workers	NO
442	37-3012	Pesticide handlers, sprayers, and applicators, vegetation	NO

Table 9
List of STEMM and Non-STEM Occupations
 Continued

ID #	SIC Code	Occupation	STEMM?
443	37-3013	Tree trimmers and pruners	NO
444	37-3019	Grounds maintenance workers, all other	NO
445	39-1013	First-line supervisors of gambling services workers	NO
446	39-1014	First-line supervisors of entertainment and recreation workers, except gambling services	NO
447	39-1022	First-line supervisors of personal service workers	NO
448	39-2011	Animal trainers	NO
449	39-2021	Animal caretakers	NO
450	39-3011	Gambling dealers	NO
451	39-3012	Gambling and sports book writers and runners	NO
452	39-3019	Gambling service workers, all other	NO
453	39-3021	Motion picture projectionists	NO
454	39-3031	Ushers, lobby attendants, and ticket takers	NO
455	39-3091	Amusement and recreation attendants	NO
456	39-3092	Costume attendants	NO
457	39-3093	Locker room, coatroom, and dressing room attendants	NO
458	39-3099	Entertainment attendants and related workers, all other	NO
459	39-4011	Embalmers	YES
460	39-4012	Crematory operators	NO
461	39-4021	Funeral attendants	NO
462	39-4031	Morticians, undertakers, and funeral arrangers	YES
463	39-5011	Barbers	NO
464	39-5012	Hairdressers, hairstylists, and cosmetologists	NO
465	39-5091	Makeup artists, theatrical and performance	NO
466	39-5092	Manicurists and pedicurists	NO
467	39-5093	Shampooers	NO
468	39-5094	Skincare specialists	NO

Table 9
List of STEMM and Non-STEM Occupations
 Continued

ID #	SIC Code	Occupation	STEMM?
469	39-6011	Baggage porters and bellhops	NO
470	39-6012	Concierges	NO
471	39-7010	Tour and travel guides	NO
472	39-9011	Childcare workers	NO
473	39-9031	Exercise trainers and group fitness instructors	NO
474	39-9032	Recreation workers	NO
475	39-9041	Residential advisors	NO
476	39-9099	Personal care and service workers, all other	NO
477	41-1011	First-line supervisors of retail sales workers	NO
478	41-1012	First-line supervisors of non-retail sales workers	NO
479	41-2011	Cashiers	NO
480	41-2012	Gambling change persons and booth cashiers	NO
481	41-2021	Counter and rental clerks	NO
482	41-2022	Parts salespersons	NO
483	41-2031	Retail salespersons	NO
484	41-3011	Advertising sales agents	NO
485	41-3021	Insurance sales agents	NO
486	41-3031	Securities, commodities, and financial services sales agents	NO
487	41-3041	Travel agents	NO
488	41-3091	Sales representatives of services, except advertising, insurance, financial services, and travel	NO
489	41-4011	Sales representatives, wholesale and manufacturing, technical and scientific products	YES
490	41-4012	Sales representatives, wholesale, and manufacturing, except technical and scientific products	NO
491	41-9011	Demonstrators and product promoters	NO
492	41-9012	Models	NO
493	41-9021	Real estate brokers	NO
494	41-9022	Real estate sales agents	NO

Table 9
List of STEMM and Non-STEM Occupations
 Continued

ID #	SIC Code	Occupation	STEMM?
495	41-9031	Sales engineers	NO
496	41-9041	Telemarketers	NO
497	41-9091	Door-to-door sales workers, news and street vendors, and related workers	NO
498	41-9099	Sales and related workers, all other	NO
499	43-1011	First-line supervisors of office and administrative support workers	NO
500	43-2011	Switchboard operators, including answering service	NO
501	43-2021	Telephone operators	NO
502	43-2099	Communications equipment operators, all other	YES
503	43-3011	Bill and account collectors	NO
504	43-3021	Billing and posting clerks	YES
505	43-3031	Bookkeeping, accounting, and auditing clerks	YES
506	43-3041	Gambling cage workers	NO
507	43-3051	Payroll and timekeeping clerks	YES
508	43-3061	Procurement clerks	YES
509	43-3071	Tellers	NO
510	43-3099	Financial clerks, all other	YES
511	43-4011	Brokerage clerks	YES
512	43-4021	Correspondence clerks	NO
513	43-4031	Court, municipal, and license clerks	NO
514	43-4041	Credit authorizers, checkers, and clerks	YES
515	43-4051	Customer service representatives	NO
516	43-4061	Eligibility interviewers, government programs	NO
517	43-4071	File clerks	NO
518	43-4081	Hotel, motel, and resort desk clerks	NO
519	43-4111	Interviewers, except eligibility and loan	NO
520	43-4121	Library assistants, clerical	NO

Table 9
List of STEMM and Non-STEM Occupations
 Continued

ID #	SIC Code	Occupation	STEMM?
521	43-4131	Loan interviewers and clerks	NO
522	43-4141	New accounts clerks	NO
523	43-4151	Order clerks	NO
524	43-4161	Human resources assistants, except payroll and timekeeping	NO
525	43-4171	Receptionists and information clerks	NO
526	43-4181	Reservation and transportation ticket agents and travel clerks	NO
527	43-4199	Information and record clerks, all other	NO
528	43-5011	Cargo and freight agents	NO
529	43-5021	Couriers and messengers	NO
530	43-5031	Public safety telecommunicators	NO
531	43-5032	Dispatchers, except police, fire, and ambulance	NO
532	43-5041	Meter readers, utilities	NO
533	43-5051	Postal service clerks	NO
534	43-5052	Postal service mail carriers	NO
535	43-5053	Postal service mail sorters, processors, and processing machine operators	NO
536	43-5061	Production, planning, and expediting clerks	NO
537	43-5071	Shipping, receiving, and inventory clerks	NO
538	43-5111	Weighers, measurers, checkers, and samplers, recordkeeping	YES
539	43-6011	Executive secretaries and executive administrative assistants	NO
540	43-6012	Legal secretaries and administrative assistants	NO
541	43-6013	Medical secretaries and administrative assistants	YES
542	43-6014	Secretaries and administrative assistants, except legal, medical, and executive	NO
543	43-9021	Data entry keyers	NO
544	43-9022	Word processors and typists	NO
545	43-9031	Desktop publishers	NO
546	43-9041	Insurance claims and policy processing clerks	YES

Table 9
List of STEMM and Non-STEM Occupations
 Continued

ID #	SIC Code	Occupation	STEMM?
547	43-9051	Mail clerks and mail machine operators, except postal service	NO
548	43-9061	Office clerks, general	NO
549	43-9071	Office machine operators, except computer	YES
550	43-9081	Proofreaders and copy markers	NO
551	43-9111	Statistical assistants	YES
552	43-9199	Office and administrative support workers, all other	NO
553	45-1011	First-line supervisors of farming, fishing, and forestry workers	NO
554	45-2011	Agricultural inspectors	YES
555	45-2021	Animal breeders	YES
556	45-2041	Graders and sorters, agricultural products	NO
557	45-2091	Agricultural equipment operators	NO
558	45-2092	Farmworkers and laborers, crop, nursery, and greenhouse	NO
559	45-2093	Farmworkers, farm, ranch, and aquacultural animals	NO
560	45-2099	Agricultural workers, all other	NO
561	45-3031	Fishing and hunting workers	NO
562	45-4011	Forest and conservation workers	NO
563	45-4021	Fallers	NO
564	45-4022	Logging equipment operators	NO
565	45-4023	Log graders and scalers	NO
566	45-4029	Logging workers, all other	NO
567	47-1011	First-line supervisors of construction trades and extraction workers	YES
568	47-2011	Boilermakers	YES
569	47-2021	Brick masons and block masons	NO
570	47-2022	Stonemasons	NO
571	47-2031	Carpenters	NO
572	47-2041	Carpet installers	NO

Table 9
List of STEMM and Non-STEM Occupations
 Continued

ID #	SIC Code	Occupation	STEMM?
573	47-2042	Floor layers, except carpet, wood, and hard tiles	NO
574	47-2043	Floor sanders and finishers	NO
575	47-2044	Tile and stone setters	NO
576	47-2051	Cement masons and concrete finishers	NO
577	47-2053	Terrazzo workers and finishers	NO
578	47-2061	Construction laborers	NO
579	47-2071	Paving, surfacing, and tamping equipment operators	NO
580	47-2072	Pile driver operators	NO
581	47-2073	Operating engineers and other construction equipment operators	YES
582	47-2081	Drywall and ceiling tile installers	NO
583	47-2082	Tapers	NO
584	47-2111	Electricians	YES
585	47-2121	Glaziers	NO
586	47-2131	Insulation workers, floor, ceiling, and wall	NO
587	47-2132	Insulation workers, mechanical	YES
588	47-2141	Painters, construction, and maintenance	NO
589	47-2142	Paperhangers	NO
590	47-2151	Pipelayers	NO
591	47-2152	Plumbers, pipefitters, and steamfitters	YES
592	47-2161	Plasterers and stucco masons	NO
593	47-2171	Reinforcing iron and rebar workers	NO
594	47-2181	Roofers	NO
595	47-2211	Sheet metal workers	YES
596	47-2221	Structural iron and steel workers	YES
597	47-2231	Solar photovoltaic installers	YES
598	47-3011	Helpers--brick masons, block masons, stonemasons, and tile and marble setters	NO

Table 9
List of STEMM and Non-STEM Occupations
 Continued

ID #	SIC Code	Occupation	STEMM?
599	47-3012	Helpers--carpenters	NO
600	47-3013	Helpers--electricians	YES
601	47-3014	Helpers--painters, paperhangers, plasterers, and stucco masons	NO
602	47-3015	Helpers--pipelayers, plumbers, pipefitters, and steamfitters	YES
603	47-3016	Helpers--roofers	NO
604	47-3019	Helpers, construction trades, all other	NO
605	47-4011	Construction and building inspectors	YES
606	47-4021	Elevator and escalator installers and repairers	YES
607	47-4031	Fence erectors	NO
608	47-4041	Hazardous materials removal workers	YES
609	47-4051	Highway maintenance workers	NO
610	47-4061	Rail-track laying and maintenance equipment operators	YES
611	47-4071	Septic tank servicers and sewer pipe cleaners	YES
612	47-4090	Miscellaneous construction and related workers	NO
613	47-5011	Derrick operators, oil and gas	YES
614	47-5012	Rotary drill operators, oil and gas	YES
615	47-5013	Service unit operators, oil and gas	YES
616	47-5022	Excavating and loading machine and dragline operators, surface mining	NO
617	47-5023	Earth drillers, except oil and gas	YES
618	47-5032	Explosives workers, ordnance handling experts, and blasters	YES
619	47-5041	Continuous mining machine operators	YES
620	47-5043	Roof bolters, mining	NO
621	47-5044	Loading and moving machine operators, underground mining	NO
622	47-5049	Underground mining machine operators, all other	YES
623	47-5051	Rock splitters, quarry	NO
624	47-5071	Roustabouts, oil and gas	NO

Table 9
List of STEMM and Non-STEM Occupations
 Continued

ID #	SIC Code	Occupation	STEMM?
625	47-5081	Helpers--extraction workers	YES
626	47-5099	Extraction workers, all other	YES
627	49-1011	First-line supervisors of mechanics, installers, and repairers	YES
628	49-2011	Computer, automated teller, and office machine repairers	YES
629	49-2021	Radio, cellular, and tower equipment installers and repairers	YES
630	49-2022	Telecommunications equipment installers and repairers, except line installers	YES
631	49-2091	Avionics technicians	YES
632	49-2092	Electric motor, power tool, and related repairers	YES
633	49-2093	Electrical and electronics installers and repairers, transportation equipment	YES
634	49-2094	Electrical and electronics repairers, commercial and industrial equipment	YES
635	49-2095	Electrical and electronics repairers, powerhouse, substation, and relay	YES
636	49-2096	Electronic equipment installers and repairers, motor vehicles	YES
637	49-2097	Audiovisual equipment installers and repairers	YES
638	49-2098	Security and fire alarm system installers	YES
639	49-3011	Aircraft mechanics and service technicians	YES
640	49-3021	Automotive body and related repairers	YES
641	49-3022	Automotive glass installers and repairers	YES
642	49-3023	Automotive service technicians and mechanics	YES
643	49-3031	Bus and truck mechanics and diesel engine specialists	YES
644	49-3041	Farm equipment mechanics and service technicians	YES
645	49-3042	Mobile heavy equipment mechanics, except engines	YES
646	49-3043	Rail car repairers	YES
647	49-3051	Motorboat mechanics and service technicians	YES
648	49-3052	Motorcycle mechanics	YES
649	49-3053	Outdoor power equipment and other small engine mechanics	YES
650	49-3091	Bicycle repairers	NO

Table 9
List of STEMM and Non-STEM Occupations
 Continued

ID #	SIC Code	Occupation	STEMM?
651	49-3092	Recreational vehicle service technicians	YES
652	49-3093	Tire repairers and changers	NO
653	49-9011	Mechanical door repairers	YES
654	49-9012	Control and valve installers and repairers, except mechanical door	YES
655	49-9021	Heating, air conditioning, and refrigeration mechanics and installers	YES
656	49-9031	Home appliance repairers	YES
657	49-9041	Industrial machinery mechanics	YES
658	49-9043	Maintenance workers, machinery	YES
659	49-9044	Millwrights	YES
660	49-9045	Refractory materials repairers, except brick masons	YES
661	49-9051	Electrical power-line installers and repairers	YES
662	49-9052	Telecommunications line installers and repairers	YES
663	49-9061	Camera and photographic equipment repairers	YES
664	49-9062	Medical equipment repairers	YES
665	49-9063	Musical instrument repairers and tuners	YES
666	49-9064	Watch and clock repairers	YES
667	49-9069	Precision instrument and equipment repairers, all other	YES
668	49-9071	Maintenance and repair workers, general	YES
669	49-9081	Wind turbine service technicians	YES
670	49-9091	Coin, vending, and amusement machine servicers and repairers	YES
671	49-9092	Commercial divers	NO
672	49-9094	Locksmiths and safe repairers	NO
673	49-9095	Manufactured building and mobile home installers	NO
674	49-9096	Riggers	YES
675	49-9097	Signal and track switch repairers	YES
676	49-9098	Helpers--installation, maintenance, and repair workers	YES

Table 9
List of STEMM and Non-STEM Occupations
 Continued

ID #	SIC Code	Occupation	STEMM?
677	49-9099	Installation, maintenance, and repair workers, all other	YES
678	51-1011	First-line supervisors of production and operating workers	YES
679	51-2011	Aircraft structure, surfaces, rigging, and system assemblers	YES
680	51-2021	Coil winders, tapers, and finishers	YES
681	51-2028	Electrical, electronic, and electromechanical assemblers, except coil winders, tapers, and finishers	YES
682	51-2031	Engine and other machine assemblers	YES
683	51-2041	Structural metal fabricators and fitters	YES
684	51-2051	Fiberglass laminators and fabricators	YES
685	51-2061	Timing device assemblers and adjusters	YES
686	51-2090	Miscellaneous assemblers and fabricators	YES
687	51-3011	Bakers	NO
688	51-3021	Butchers and meat cutters	NO
689	51-3022	Meat, poultry, and fish cutters and trimmers	NO
690	51-3023	Slaughterers and meat packers	NO
691	51-3091	Food and tobacco roasting, baking, and drying machine operators and tenders	NO
692	51-3092	Food batchmakers	NO
693	51-3093	Food cooking machine operators and tenders	NO
694	51-3099	Food processing workers, all other	NO
695	51-4021	Extruding and drawing machine setters, operators, and tenders, metal and plastic	YES
696	51-4022	Forging machine setters, operators, and tenders, metal and plastic	YES
697	51-4023	Rolling machine setters, operators, and tenders, metal and plastic	YES
698	51-4031	Cutting, punching, and press machine setters, operators, and tenders, metal and plastic	YES
699	51-4032	Drilling and boring machine tool setters, operators, and tenders, metal and plastic	YES
700	51-4033	Grinding, lapping, polishing, and buffing machine tool setters, operators, and tenders, metal and plastic	YES
701	51-4034	Lathe and turning machine tool setters, operators, and tenders, metal and plastic	YES
702	51-4035	Milling and planing machine setters, operators, and tenders, metal and plastic	YES

Table 9
List of STEMM and Non-STEM Occupations
 Continued

ID #	SIC Code	Occupation	STEMM?
703	51-4041	Machinists	YES
704	51-4051	Metal-refining furnace operators and tenders	YES
705	51-4052	Pourers and casters, metal	NO
706	51-4061	Model makers, metal and plastic	YES
707	51-4062	Patternmakers, metal and plastic	YES
708	51-4071	Foundry mold and coremakers	YES
709	51-4072	Molding, coremaking, and casting machine setters, operators, and tenders, metal and plastic	YES
710	51-4081	Multiple machine tool setters, operators, and tenders, metal and plastic	YES
711	51-4111	Tool and die makers	YES
712	51-4121	Welders, cutters, solderers, and brazers	YES
713	51-4122	Welding, soldering, and brazing machine setters, operators, and tenders	YES
714	51-4191	Heat treating equipment setters, operators, and tenders, metal and plastic	YES
715	51-4192	Layout workers, metal and plastic	NO
716	51-4193	Plating machine setters, operators, and tenders, metal and plastic	YES
717	51-4194	Tool grinders, filers, and sharpeners	NO
718	51-4199	Metal workers and plastic workers, all other	YES
719	51-5111	Prepress technicians and workers	YES
720	51-5112	Printing press operators	YES
721	51-5113	Print binding and finishing workers	NO
722	51-6011	Laundry and dry-cleaning workers	NO
723	51-6021	Pressers, textile, garment, and related materials	NO
724	51-6031	Sewing machine operators	NO
725	51-6041	Shoe and leather workers and repairers	NO
726	51-6042	Shoe machine operators and tenders	NO
727	51-6051	Sewers, hand	NO
728	51-6052	Tailors, dressmakers, and custom sewers	NO

Table 9
List of STEMM and Non-STEM Occupations
 Continued

ID #	SIC Code	Occupation	STEMM?
729	51-6061	Textile bleaching and dyeing machine operators and tenders	NO
730	51-6062	Textile cutting machine setters, operators, and tenders	NO
731	51-6063	Textile knitting and weaving machine setters, operators, and tenders	NO
732	51-6064	Textile winding, twisting, and drawing out machine setters, operators, and tenders	NO
733	51-6091	Extruding and forming machine setters, operators, and tenders, synthetic and glass fibers	NO
734	51-6092	Fabric and apparel patternmakers	NO
735	51-6093	Upholsterers	NO
736	51-6099	Textile, apparel, and furnishings workers, all other	NO
737	51-7011	Cabinetmakers and bench carpenters	NO
738	51-7021	Furniture finishers	NO
739	51-7031	Model makers, wood	YES
740	51-7032	Patternmakers, wood	YES
741	51-7041	Sawing machine setters, operators, and tenders, wood	NO
742	51-7042	Woodworking machine setters, operators, and tenders, except sawing	NO
743	51-7099	Woodworkers, all other	NO
744	51-8011	Nuclear power reactor operators	YES
745	51-8012	Power distributors and dispatchers	YES
746	51-8013	Power plant operators	YES
747	51-8021	Stationary engineers and boiler operators	YES
748	51-8031	Water and wastewater treatment plant and system operators	YES
749	51-8091	Chemical plant and system operators	YES
750	51-8092	Gas plant operators	YES
751	51-8093	Petroleum pump system operators, refinery operators, and gaugers	YES
752	51-8099	Plant and system operators, all other	YES
753	51-9011	Chemical equipment operators and tenders	YES
754	51-9012	Separating, filtering, clarifying, precipitating, and still machine setters, operators, and tenders	YES

Table 9
List of STEMM and Non-STEM Occupations
 Continued

ID #	SIC Code	Occupation	STEMM?
755	51-9021	Crushing, grinding, and polishing machine setters, operators, and tenders	YES
756	51-9022	Grinding and polishing workers, hand	NO
757	51-9023	Mixing and blending machine setters, operators, and tenders	YES
758	51-9031	Cutters and trimmers, hand	NO
759	51-9032	Cutting and slicing machine setters, operators, and tenders	YES
760	51-9041	Extruding, forming, pressing, and compacting machine setters, operators, and tenders	YES
761	51-9051	Furnace, kiln, oven, drier, and kettle operators and tenders	YES
762	51-9061	Inspectors, testers, sorters, samplers, and weighers	YES
763	51-9071	Jewelers and precious stone and metal workers	YES
764	51-9081	Dental laboratory technicians	YES
765	51-9082	Medical appliance technicians	YES
766	51-9083	Ophthalmic laboratory technicians	YES
767	51-9111	Packaging and filling machine operators and tenders	YES
768	51-9123	Painting, coating, and decorating workers	NO
769	51-9124	Coating, painting, and spraying machine setters, operators, and tenders	NO
770	51-9141	Semiconductor processing technicians	YES
771	51-9151	Photographic process workers and processing machine operators	YES
772	51-9161	Computer numerically controlled tool operators	YES
773	51-9162	Computer numerically controlled tool programmers	YES
774	51-9191	Adhesive bonding machine operators and tenders	YES
775	51-9192	Cleaning, washing, and metal pickling equipment operators and tenders	NO
776	51-9193	Cooling and freezing equipment operators and tenders	YES
777	51-9194	Etchers and engravers	YES
778	51-9195	Molders, shapers, and casters, except metal and plastic	NO
779	51-9196	Paper goods machine setters, operators, and tenders	YES
780	51-9197	Tire builders	YES

Table 9
List of STEMM and Non-STEM Occupations
 Continued

ID #	SIC Code	Occupation	STEMM?
781	51-9198	Helpers--production workers	NO
782	51-9199	Production workers, all other	YES
783	53-1041	Aircraft cargo handling supervisors	NO
784	53-1047	First-line supervisors of transportation and material moving workers, except aircraft cargo handling supervisors	NO
785	53-2011	Airline pilots, copilots, and flight engineers	YES
786	53-2012	Commercial pilots	YES
787	53-2021	Air traffic controllers	YES
788	53-2022	Airfield operations specialists	YES
789	53-2031	Flight attendants	NO
790	53-3011	Ambulance drivers and attendants, except emergency medical technicians	NO
791	53-3031	Driver/sales workers	NO
792	53-3032	Heavy and tractor-trailer truck drivers	NO
793	53-3033	Light truck drivers	NO
794	53-3051	Bus drivers, school	NO
795	53-3052	Bus drivers, transit and intercity	NO
796	53-3053	Shuttle drivers and chauffeurs	NO
797	53-3054	Taxi drivers	NO
798	53-3099	Motor vehicle operators, all other	NO
799	53-4011	Locomotive engineers	NO
800	53-4013	Rail yard engineers, dinkey operators, and hostlers	NO
801	53-4022	Railroad brake, signal, and switch operators and locomotive firers	NO
802	53-4031	Railroad conductors and yardmasters	NO
803	53-4041	Subway and streetcar operators	NO
804	53-4099	Rail transportation workers, all other	NO
805	53-5011	Sailors and marine oilers	NO
806	53-5021	Captains, mates, and pilots of water vessels	YES

Table 9
List of STEMM and Non-STEM Occupations
 Continued

ID #	SIC Code	Occupation	STEMM?
807	53-5022	Motorboat operators	NO
808	53-5031	Ship engineers	YES
809	53-6011	Bridge and lock tenders	NO
810	53-6021	Parking attendants	NO
811	53-6031	Automotive and watercraft service attendants	NO
812	53-6032	Aircraft service attendants	NO
813	53-6041	Traffic technicians	NO
814	53-6051	Transportation inspectors	YES
815	53-6061	Passenger attendants	NO
816	53-6099	Transportation workers, all other	NO
817	53-7011	Conveyor operators and tenders	YES
818	53-7021	Crane and tower operators	YES
819	53-7031	Dredge operators	YES
820	53-7041	Hoist and winch operators	YES
821	53-7051	Industrial truck and tractor operators	NO
822	53-7061	Cleaners of vehicles and equipment	NO
823	53-7062	Laborers and freight, stock, and material movers, hand	NO
824	53-7063	Machine feeders and offbearers	NO
825	53-7064	Packers and packagers, hand	NO
826	53-7065	Stockers and order fillers	NO
827	53-7071	Gas compressor and gas pumping station operators	YES
828	53-7072	Pump operators, except wellhead pumpers	YES
829	53-7073	Wellhead pumpers	YES
830	53-7081	Refuse and recyclable material collectors	NO
831	53-7121	Tank car, truck, and ship loaders	NO
832	53-7199	Material moving workers, all other	NO

Science is US

Mechanical Engineers

Prosthetist

Ship Engineers

Veterinarian

Dredge Operators

Cartographers

Insurance Underwriters

Physicists

Museum Technicians and

Conservators

Radiologists

Civil Engineers

Air Traffic Controllers

Economists

Phlebotomists

Embalmers

Statistical Assistants

Nurses

Boilermakers

Wind Turbine Service