NCSES Webinar Series: The Skilled Technical Workforce Initiative Workshops

National Center for Science and Engineering Statistics

Social, Behavioral & Economic Sciences

National Science Foundation

Let's talk about the STW

- NCSES invites you to discuss the Skilled Technical Workforce (STW)

  Workers that use significant levels of science and engineering expertise and technical knowledge in their occupations and whose educational attainment is less than a bachelor's degree

- A focus on the STW expands not only the federal knowledge of the STEM Workforce but the total U.S. workforce

Let's talk about why we are here

- Many are contributing to measuring and understanding the workforce

- Effort is larger than one agency or organization

- We need increased coordination

- We need forums for interaction and discussion

The federal importance of measuring the STW

- A national strategy for training workers across high-demand industries

- The foundation of the S&E enterprise

- The coronavirus pandemic

- Limited data and inconsistent coordination
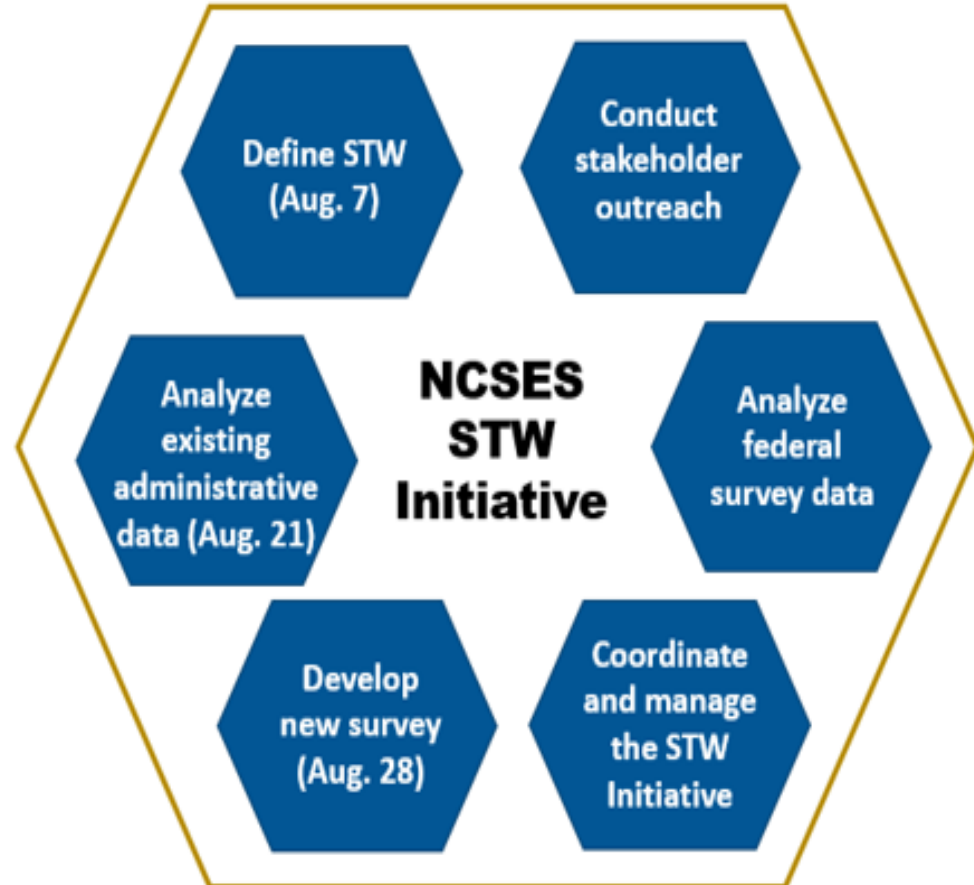
The NCSES STW Initiative

NCSES:

- 1 of 13 principal federal statistical agency

- Mandated to be a data clearinghouse on science and engineering enterprise

- Developed a framework to study and measure the STW
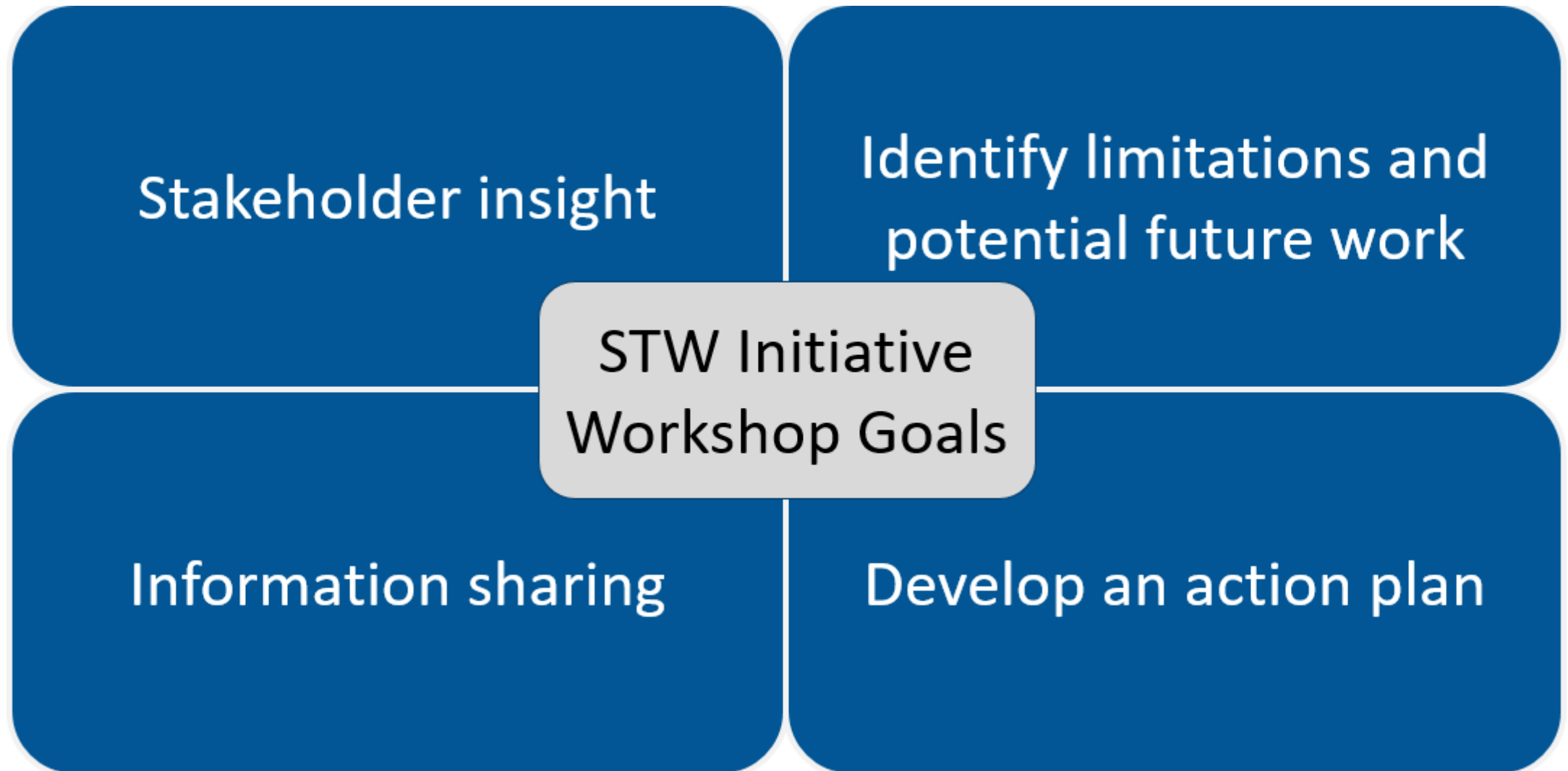
NCSES efforts to understanding the workforce

Community of STEM Workforce Efforts

NCSES STW Initiative

- Define STW (Aug. 7)
- Conduct stakeholder outreach
- Analyze existing administrative data (Aug. 21)
- Analyze federal survey data
- Develop new survey (Aug. 28)
- Coordinate and manage the STW Initiative

STW Initiative workshop goals

Stakeholder insight

Identify limitations and potential future work

STW Initiative Workshop Goals

Information sharing

Develop an action plan

Agenda – The STW and Why it Matters

- Keynote speaker – Dr. Victor McCrary

  "The Skilled Technical Workforce: Crafting America's Science and Engineering Enterprise"

- NCSES presentation – Dr. Amy Burke

  "Skilled Technical Workers: Who They Are and Their Role in the U.S. STEM Workforce"

- Chat and Q&A moderator – Dr. Josh Trapani

- Wrap-up – John Finamore

The Skilled Technical Workforce: Crafting America's Science & Engineering Enterprise

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NSB and the STW

- **NSB has a long-standing interest in the STEM workforce**

- **Since 2015, we've been calling for a more holistic view of the workforce that moves beyond academic degrees and occupations and highlights the contributions of workers at all educational levels.**

  - *Revisiting the STEM Workforce (2015)*
  - *Our Nation's Future Competitiveness Relies on Building A STEM-Capable Workforce (2018)*

- **NSB has in recent years has looked at specific segments of the workforce.**

  - *SEH Doctorates in the Workforce (2017)*
  - *The Skilled Technical Workforce: Crafting America's Science & Engineering Enterprise (2019)*

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Why the STW Matters

- Increased need for S&T skills and knowledge across many sectors and at all educational levels

- National prosperity and security in a competitive, S&T-intensive world

- Long-term health of the U.S. S&E enterprise

- Near-term workforce needs

- Opportunities for all Americans

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STW Data Portrait

Bar chart describing the average salary for skilled technical workers is estimated to be $45,000 and almost $30,000 for all other workers. The estimated average unemployment rate for skilled technical workers is 3.0% and all other workers about 5.3%.
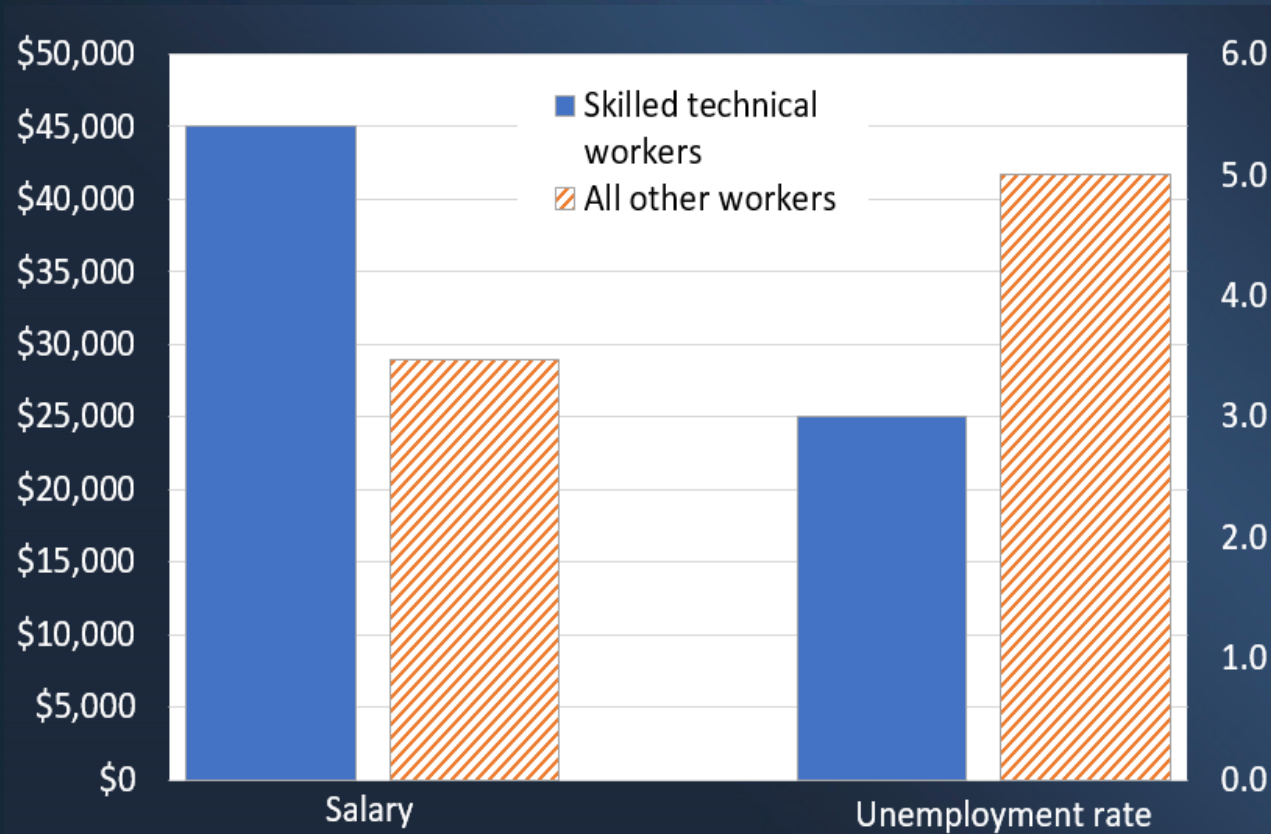
The chart indicates the skilled occupations are ranked from highest percentage to lowest: Construction and extraction (20.9%); Healthcare practitioner and Technical (20.5%); Installation, Maintenance, and Repair (19.7%); Production (15.5%); Computer and Mathematical (7.8%); Architecture Engineering (4.8%); and All other (10.8%).

Skilled technical workers, by occupation: 2017

All Occupations	100.0%
Construction and Extraction	20.9%
Healthcare Practitioners and Technical	20.5%
Installation, Maintenance, and Repair	19.7%
Production	15.5%
Computer and Mathematical	7.8%
Architecture and Engineering	4.8%
All other	10.8%
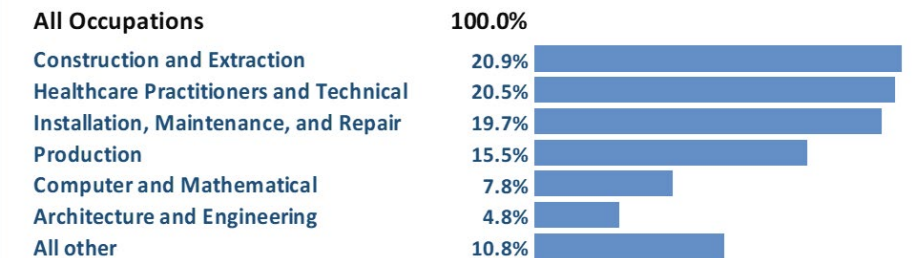
Source(s)
American Community Survey (ACS) (2017) public use microdata.

Science and Engineering Indicators

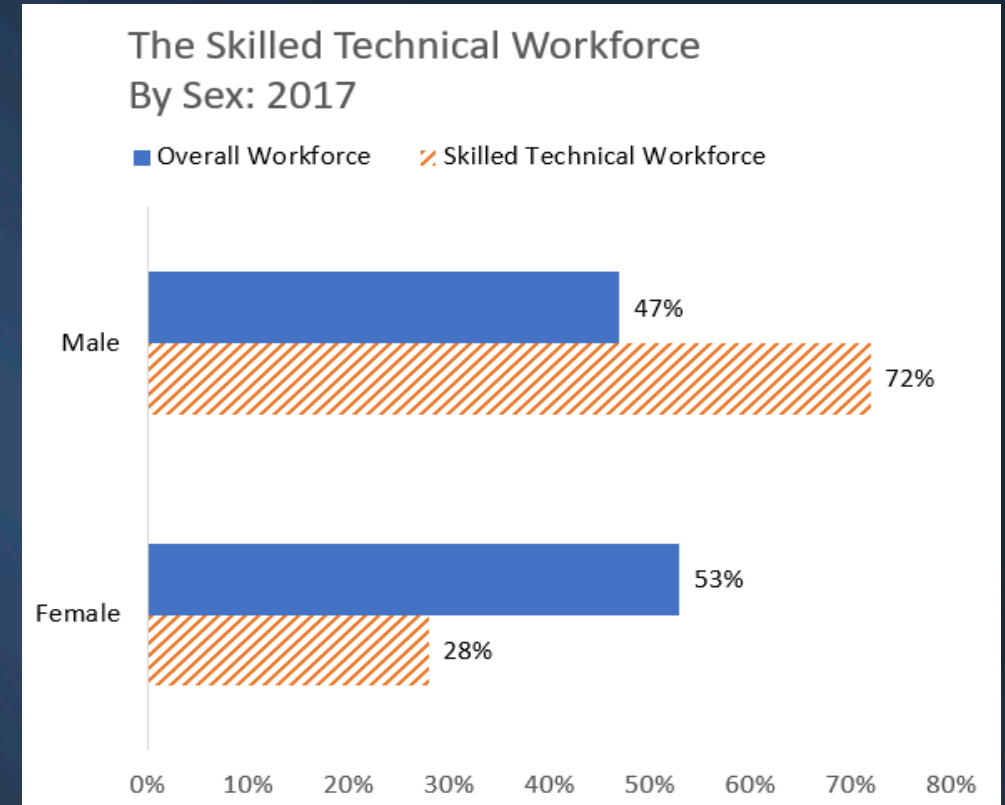Science & Engineering Indicators 2020, "S&E Labor Force"

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STW Data Portrait

Bar chart describes the percentages for each race and ethnicity group for the overall workforce versus skilled technical workforce. Overall Workforce for White non-Hispanic (64%); Hispanic (17%); Black (11%); Asian (6%) and Other (2%). Skilled technical workforce White non-Hispanic (66%); Hispanic (18%); Black 10%; Asian (4%); and Other (2%).
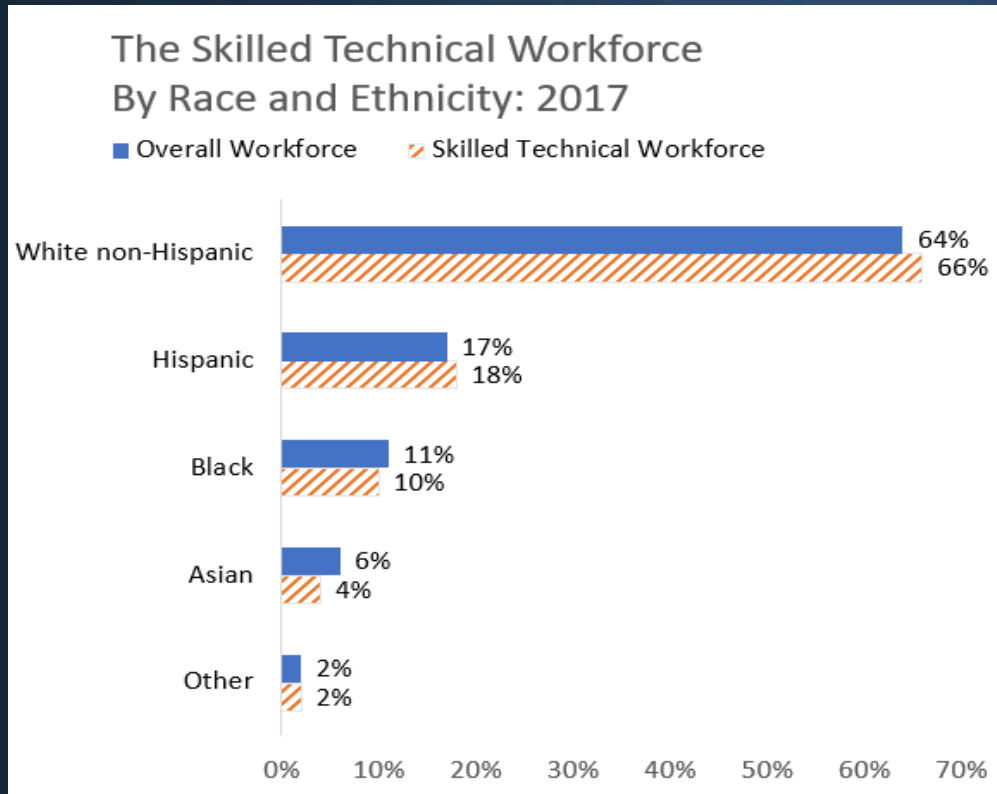
The bar chart shows the percentages for males and females for the overall workforce versus skilled technical workforce. Overall Workforce for Male (47%) and Female (53%). Skilled Technical Workforce for Males (72%) and Females (28%).

The Skilled Technical Workforce
By Race and Ethnicity: 2017

- Overall Workforce - Skilled Technical Workforce

White non-Hispanic	64% / 66%
Hispanic	17% / 18%
Black	11% / 10%
Asian	6% / 4%
Other	2% / 2%

The Skilled Technical Workforce
By Sex: 2017

- Overall Workforce - Skilled Technical Workforce

Male	47% / 72%
Female	53% / 28%

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Systemic Challenges and Opportunities

- **Designing STW education** to meet the needs of individuals
- **Building partnerships among** industry, government, and educational institutions to leverage resources and knowledge, and respond to local industry/community needs
- **Conveying accurate information** about the STW, including employment and career opportunities
- **Addressing data gaps and data silos to maximize effectiveness of existing and new programs and initiatives**

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Developing the STW

- A systems-wide approach to S&E workforce development must include the education and preparation of the STW

- STW pathways *complement* rather than compete with other educational pathways.
  - Emphasis should be on the need for some post-secondary education
  - Avoid pitting 2-year and other non-bachelor's post-secondary educational options against 4-year degrees
  - **Data can help us better understand and support these crucial pathways into the STEM-capable workforce**

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Recommendations

- **Change the Message**: The NSB and NSF, and other S&E leaders should communicate the importance of the STW to the nation's S&E enterprise, individual economic prosperity, national security, and U.S. global competitiveness.

- **Focus on the Data**: To understand and begin to address data gaps, NSF's NCSES, with additional federal resources and collaborating with other statistical agencies, should collect nationally representative data on the education, skills, and workforce characteristics of the STW. NSF should promote partnerships between governmental and non-governmental (industry, academia) stakeholders in the STW to share data and develop tools for public use and workforce planning.

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Recommendations

- **Leverage the Portfolio of Federal Investments:** NSF should conduct a full portfolio analysis of its STW investments. The analysis could publicize and inform stakeholders about the breadth of NSF's contributions to the STW, build awareness of funding opportunities, and maximize and leverage the impact of these investments.

- **Build Partnerships:** Two-year colleges and four-year colleges and universities should work as partners, together with business, to grow the STEM-capable U.S. workforce via programs tailored to the needs of local communities. Policymakers can encourage this by developing federal programs that require partnership participation from stakeholders in multiple sectors.
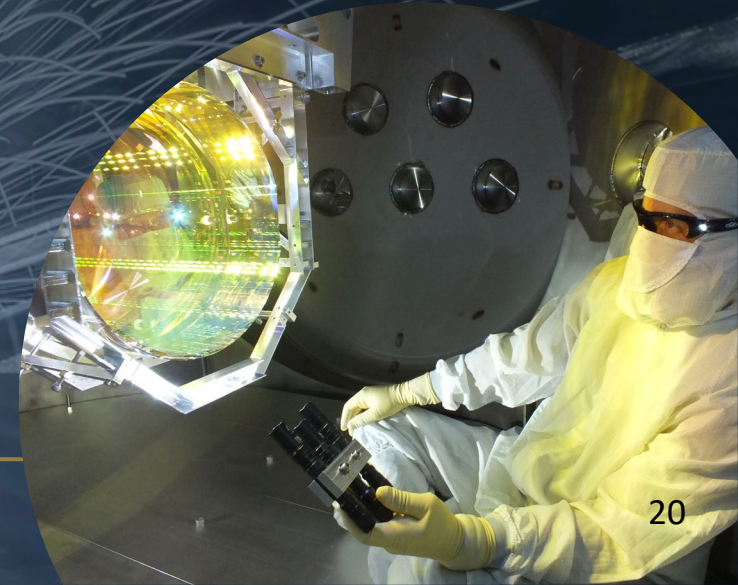
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VISION 2030

DEVELOP STEM TALENT FOR AMERICA

Questions?

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Additional Slides

NSF INVESTMENTS IN SKILLED TECHNICAL WORKFORCE DEVELOPMENT

Research
Educational Research
NSF Convergence Accelerator Tracks;
AI and the Future of Jobs

Infrastructure
Advanced Technological Education
Science of Learning and tools

Data Collection and Analysis
Stakeholder Outreach to Identify Data Gaps
New National Training, Education, and Workforce Survey
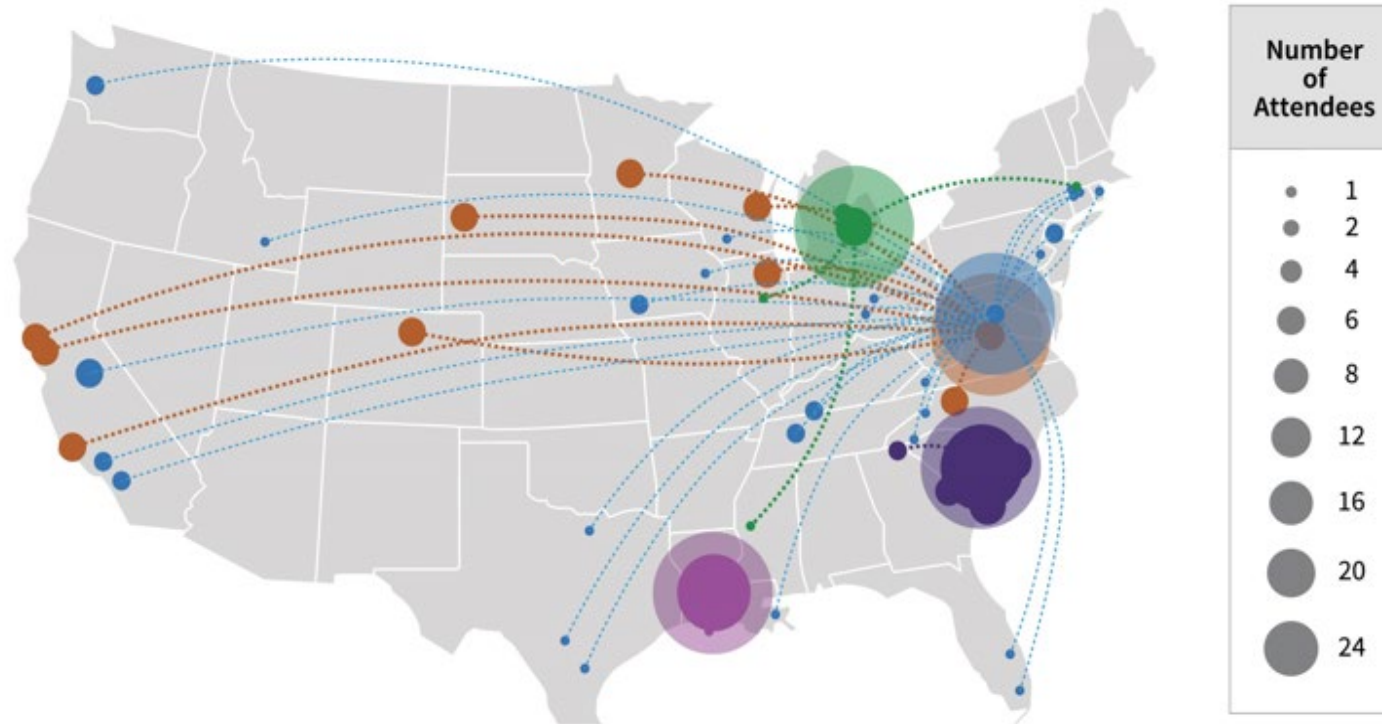Identification/Analysis of other Public and Private Sector Data Sources

Community Building
Career Compass Challenge
Community College Invocation Challenge

Education and Workforce Development
Advanced Technological Education
S-STEM
CS for All

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LISTENING SESSION & PARTICIPANT LOCATIONS

Number of Attendees

- 1
- 2
- 4
- 6
- 8
- 12
- 16
- 20
- 24

* Translucent circles represent listening session locations
* Solid circles represent attendee locations

Advanced Technological Education Conference
Washington, DC – 45 Attendees, 31 Participant Locations
Academia – 45

Community College Innovation Challenge
Alexandria, VA – 56 Attendees, 10 Participant Locations
Academia – 45
Industry – 1

Florence Darling Technical College
Florence, SC – 40 Attendees, 9 Participant Locations
Academia – 20
Industry – 15
Government – 2
Non-Profit – 4

Macomb Community College
Warren, MI – 22 Attendees, 10 Participant Locations
Academia – 10
Industry – 8
Government – 3
Non- Profit – 1

Baton Rouge Community College
Baton Rouge, LA – 21 Attendees, 2 Participation Locations
Academia – 12
Government – 5
Non- Profit – 4

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Skilled Technical Workers: Who They are and Their Role in the U.S. STEM Workforce

Amy Burke

August 7, 2020

National Center for Science and Engineering Statistics

Social, Behavioral and Economic Sciences

National Science Foundation

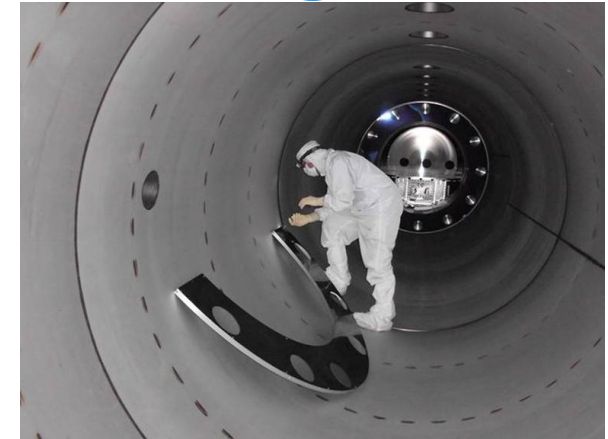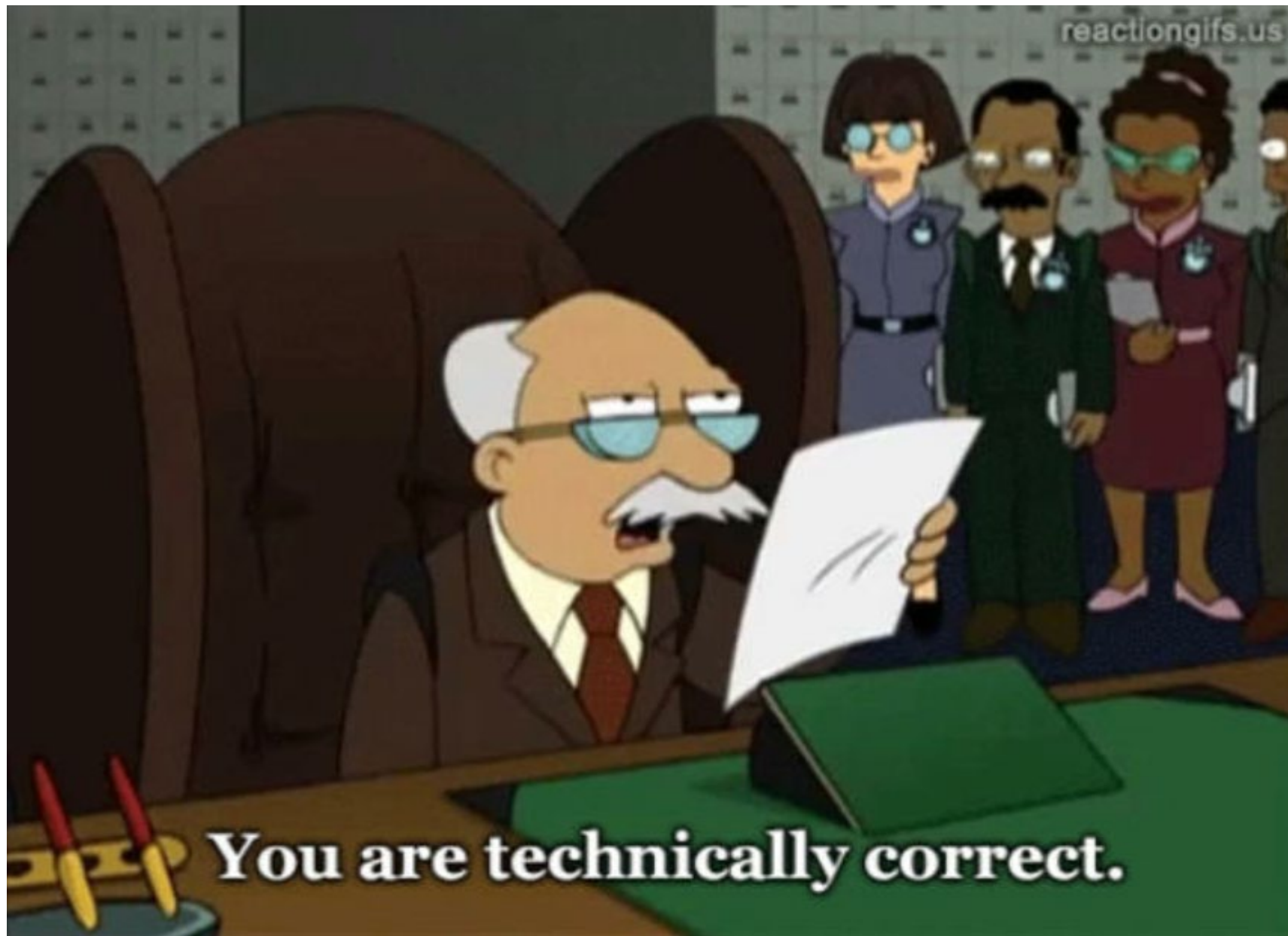# Which of these images do you consider part of the STEM workforce?

1

2

3

4

5

6

Objective:
Understand how the STW is defined and measured and what we know about them based on currently available data.

- Definition: What is the STW?

- Measurement: A data framework for measuring the STW

- Here's what we know:
  - How the STW contributes to STEM: STW occupations and industries
  - STW pathways: Certifications, licenses, and education
  - STW opportunities: Earnings and unemployment rates
  - Who are the STW: Demographics of the STW

What is the Skilled Technical Workforce?

Workers in occupations that use significant levels of S&E expertise and technical knowledge and who do not have a bachelor's degree.

What I do have are a very particular set of skills, skills that I have aquired over a very long career ..
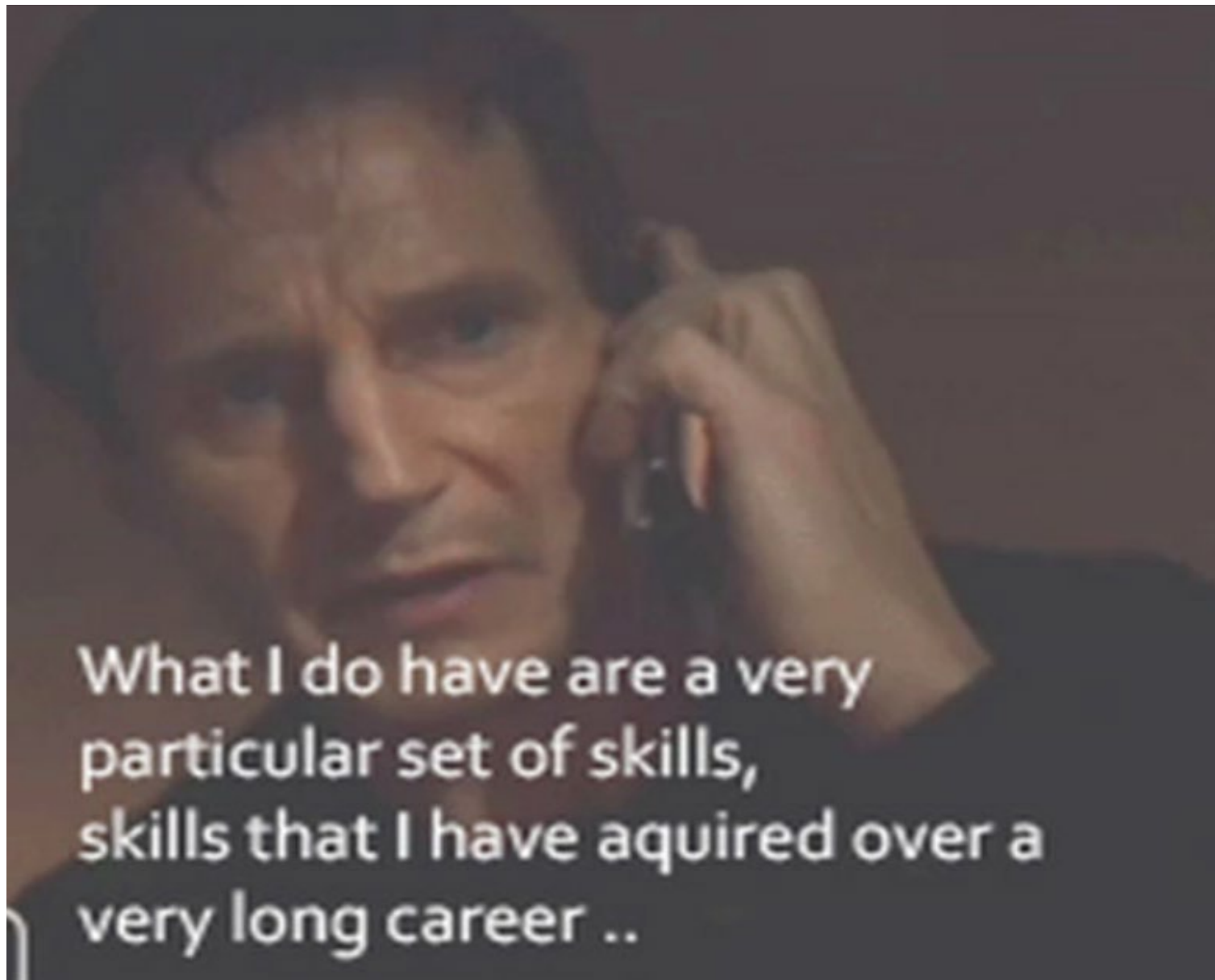
O*NET data used to identify skilled technical occupations

1. Score a 4.5 or higher in the following domains:
   - Biology
   - Building and Construction
   - Chemistry
   - Computers and Electronics
   - Design
   - Engineering and Technology
   - Food Production
   - Mathematics
   - Mechanical
   - Medicine and Dentistry
   - Physics
   - Production and Processing
   - Telecommunications

2. Greater than 50% of workers without a bachelor's degree

STW workers are employed in a diverse set of occupations

Science & Engineering (S&E) occupations

Computer and mathematical scientists; biological, agricultural, and environmental life scientists; physical scientists; social scientists; engineers

S&E-related occupations

Health-related (e.g. health practitioners, health technologists), S&E managers, S&E teachers, S&E technologists, other S&E-related occupations

NEW: Skilled technical occupations

Construction and extraction; installation, maintenance, and repair; production; other skilled technical occupations

How are these similar to or different from occupations you use to identify the STEM workers or the STW?

Science & Engineering (S&E) occupations

Computer and mathematical scientists; biological, agricultural, and environmental life scientists; physical scientists; social scientists; engineers
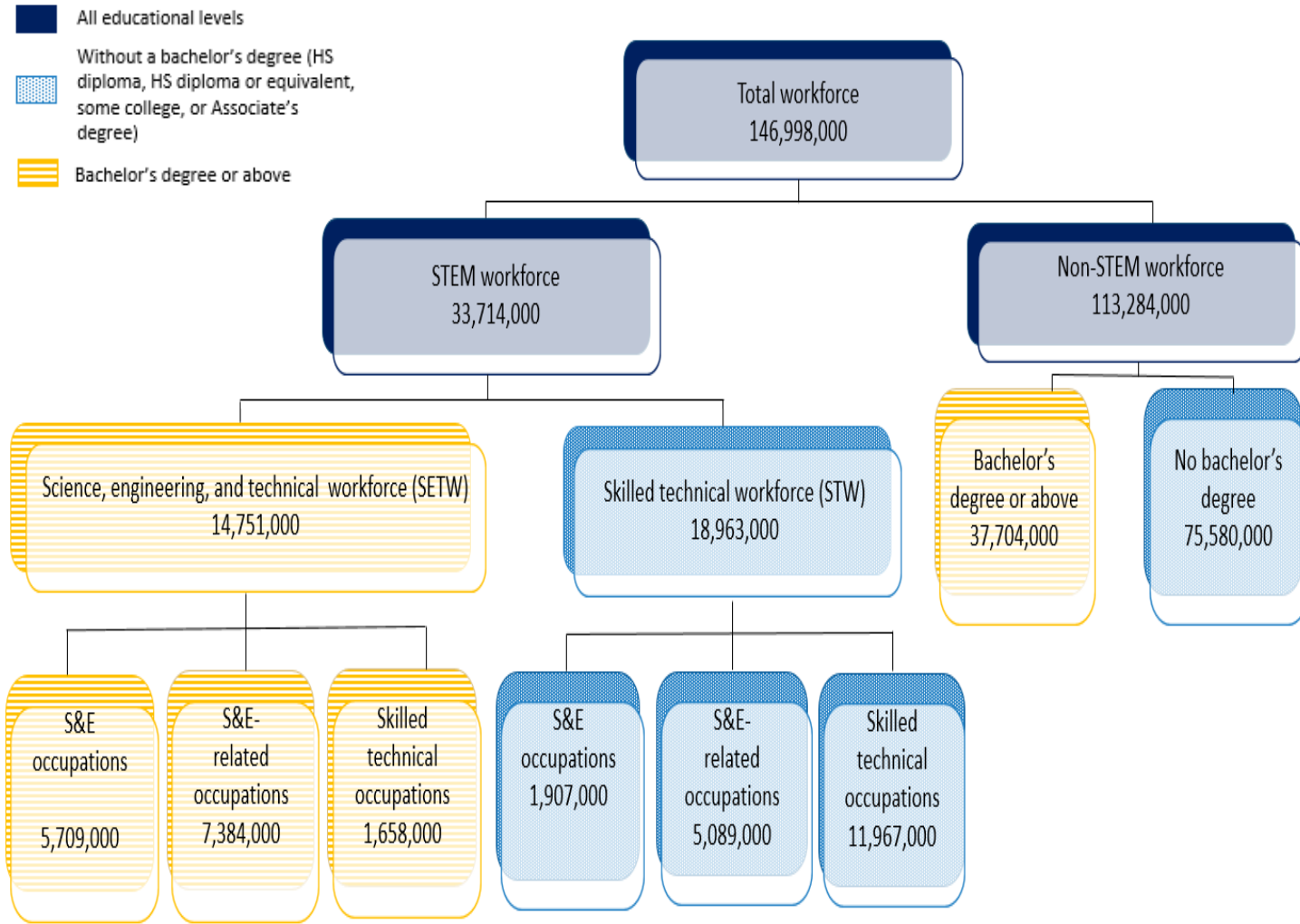
S&E-related occupations

Health-related (e.g. health practitioners, health technologists), S&E managers, S&E teachers, S&E technologists, other S&E-related occupations

NEW: Skilled technical occupations

Construction and extraction; installation, maintenance, and repair; production; other skilled technical occupations

New model provides a more extensive view of the STEM workforce

Legend:
- ■ All educational levels
- ▒ Without a bachelor's degree (HS diploma, HS diploma or equivalent, some college, or Associate's degree)
- ▤ Bachelor's degree or above

Hierarchy chart:

- **Total workforce** 146,998,000
  - **STEM workforce** 33,714,000
    - **Science, engineering, and technical workforce (SETW)** 14,751,000
      - S&E occupations 5,709,000
      - S&E-related occupations 7,384,000
      - Skilled technical occupations 1,658,000
    - **Skilled technical workforce (STW)** 18,963,000
      - S&E occupations 1,907,000
      - S&E-related occupations 5,089,000
      - Skilled technical occupations 11,967,000
  - **Non-STEM workforce** 113,284,000
    - Bachelor's degree or above 37,704,000
   - No bachelor's degree 75,580,000

The breakout of the U.S. workforce ages 16 to 65 years old into the STEM and non-STEM workforces.

- The top-level or first-tier Total workforce of an estimated 146,998,000 workers of all educational levels.
- The second-tiered, two sub-groups from Total workforce (from the first-tier level): STEM workforce of all education levels (33,714,000) and non-STEM workforce (113,284,000) of all education levels.
- The third-tier shows two sub groups of STEM workforce (from the second-tier): Science, engineering, and technical workforce (SETW) with a bachelor's degree or above with 14,751,000 workers, and Skilled technical workforce (STW) without a bachelor's degree (i.e., HS diploma, HS diploma or equivalent, some college or associate's degree) with 18,963,000 workers. Also, the third-tiered shows two sub groups of the non-STEM workforce (from the second-tier): Bachelor's degree or above with 37,704,000 workers and No bachelor's degree 75,580,000 workers.
- The fourth-tier shows three sub groups for the Science, Engineering, and Technical workforce (SETW) from the third-tier: S&E Occupations 5,709,000 workers; S&E-related occupations 7,384,000; and Skilled technical occupations 1,658,000. The fourth-tiered also shows the same three sub groups for the Skilled technical workforce (STW) from the third tier: S&E occupations 1,907,000 workers; S&E-related occupations 5,089,000; and Skilled technical occupations 11,967,000

NOTE: Estimates may not sum to totals due to rounding and do not include military-specific occupations.
Source: U.S. Census Bureau, special tabulations of the American Community Survey Public Use Microdata (2018), data as of July 2020.
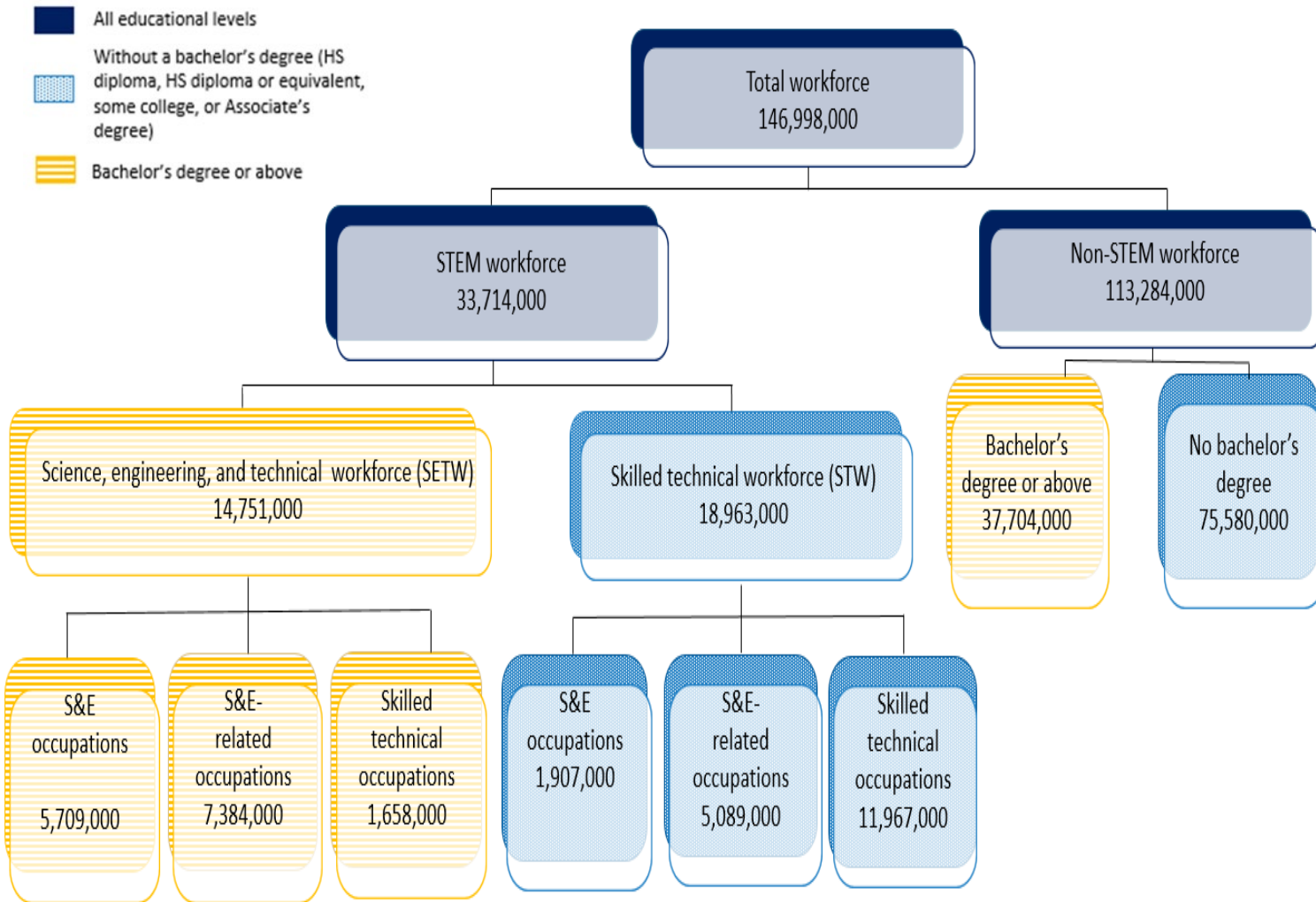
Skilled technical workers are 13% (19 M) of the 146 M workers in the U.S. workforce
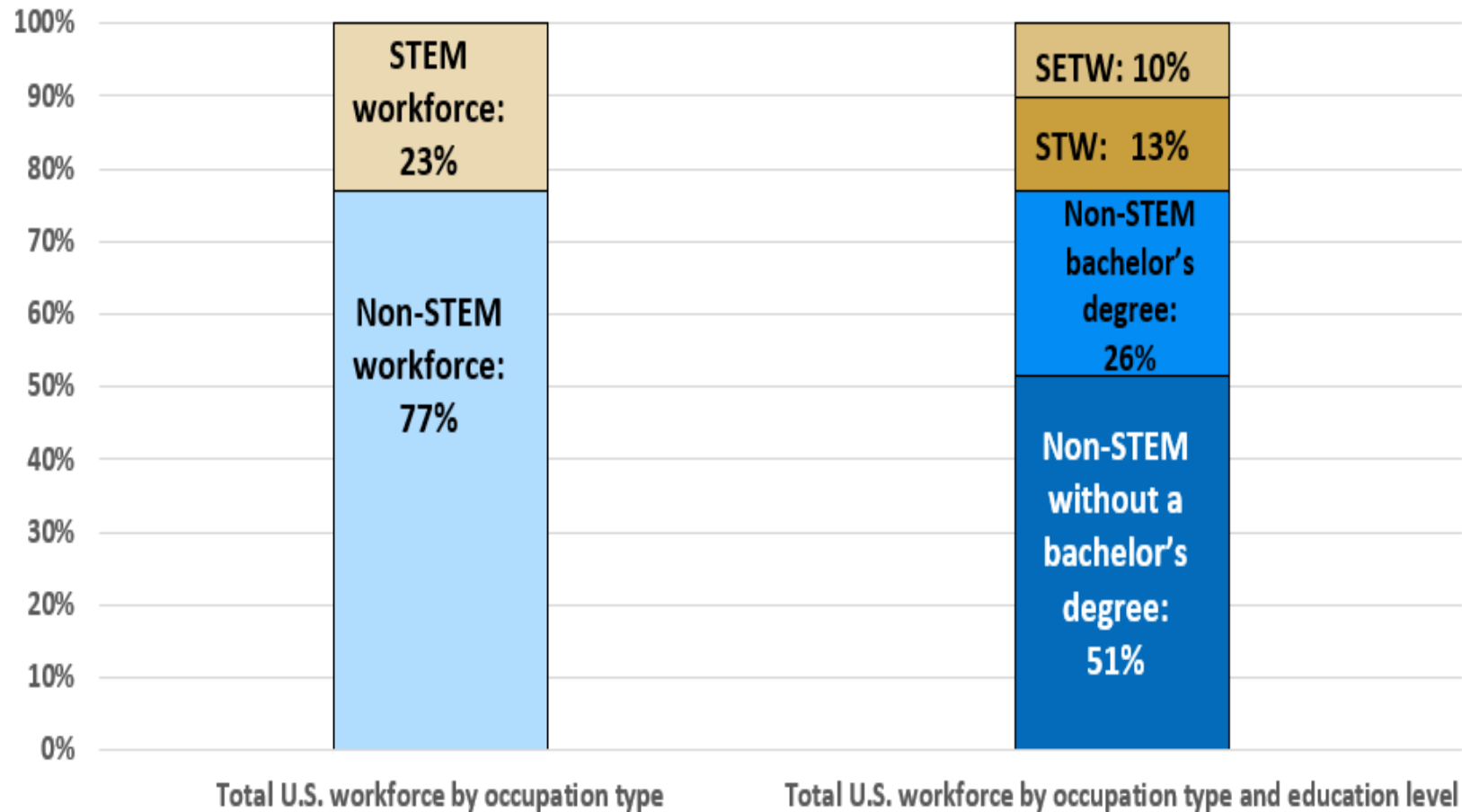
The 100% stacked-column graph that shows horizontal column, the percent of the total workforce that are broken out in two subgroups by occupation type: the STEM workforce 23% and non-STEM occupations 77%. In the second horizontal column, the percent of the total workforce are broken out in four subgroups based on occupation type and education: the SETW 10%, STW 13%, non-STEM with a bachelor's degree 26% , and the non-STEM workforce without a bachelor's degree 51%.

100% stacked-column graph

Column 1 — Total U.S. workforce by occupation type:
- STEM workforce: 23%
- Non-STEM workforce: 77%

Column 2 — Total U.S. workforce by occupation type and education level:
- SETW: 10%
- STW: 13%
- Non-STEM bachelor's degree: 26%
- Non-STEM without a bachelor's degree: 51%

Source: U.S. Census Bureau, special tabulations of the American Community Survey Public Use Microdata (2018), data as of July 2020.

List what you see as strengths of this approach

Legend:
- All educational levels
- Without a bachelor's degree (HS diploma, HS diploma or equivalent, some college, or Associate's degree)
- Bachelor's degree or above

Total workforce
146,998,000

- STEM workforce 33,714,000
  - Science, engineering, and technical workforce (SETW) 14,751,000
    - S&E occupations 5,709,000
    - S&E-related occupations 7,384,000
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The breakout of the U.S. workforce ages 16 to 65 years old into the STEM and non-STEM workforces.
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NOTE: Estimates may not sum to totals due to rounding and do not include military-specific occupations.
Source: U.S. Census Bureau, special tabulations of the American Community Survey Public Use Microdata (2018), data as of July 2020.

List what you see as *weaknesses* of this approach

STEM workers in the U.S. workforce, 2018

The breakout of the U.S. workforce ages 16 to 65 years old into the STEM and non-STEM workforces.

- The top-level or first-tier Total workforce of an estimated 146,998,000 workers of all educational levels.
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Skilled technical workers contribute their skills and innovative ideas in a variety of occupations

Over a third of skilled technical workers work in S&E and S&E-related occupations

A 100% stacked column graph with two bars. The horizontal column breaks out the Science, Engineering, and Technical Workforce (SETW) in three occupation groups: S&E occupations (5,709,144 workers); S&E-related occupations (7,383,571) and Skilled technical occupations (1,658,253).

The second column breaks out the Skilled Technical Workforce by S&E occupations (1,907,097); S&E-related occupation (5,089,105), and skilled technical occupations (11,966,577). Most of the SETW are in S&E occupations and S&E-related occupations. Most of the STW workers are in skilled technical occupations, but over a third of the STW workers are in S&E occupations and S&E-related occupations.
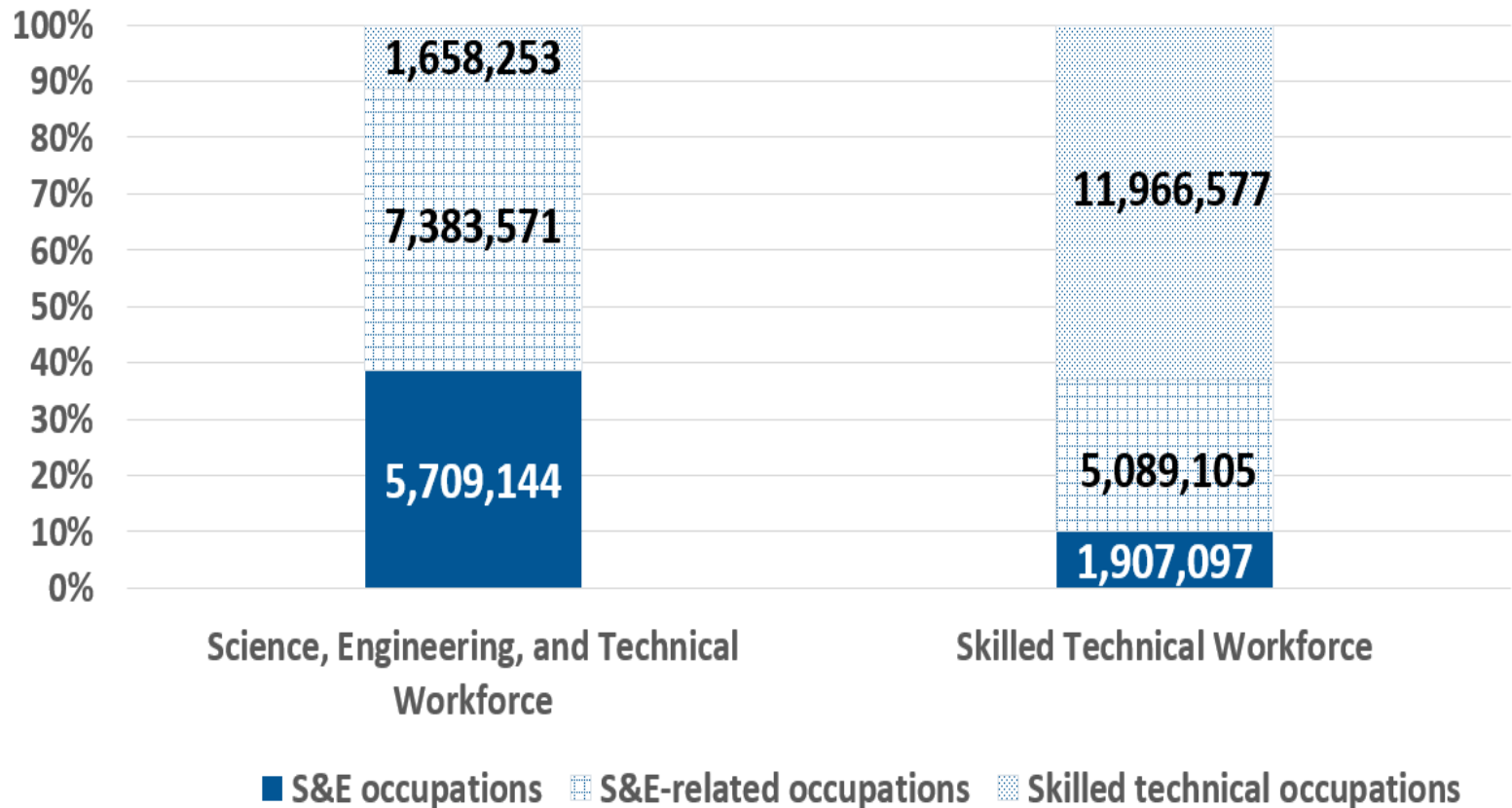
Source: U.S. Census Bureau, special tabulations of the American Community Survey Public Use Microdata (2018), data as of July 2020.

# Three-quarters of the STW work in four main occupation groups

The number of skilled technical workers by broad occupational categories within the STEM categories. Three quarters of the STW work in Construction and Extraction (estimated 3,864,000 workers); Installation, Maintenance, and Repair (3,832,307); Health Care Practitioners and Technical Occupations (3,740,714); and Production (2,851,895). The remaining occupations on this bar graph are: All other S&E, S&E-related, & STW occupations (2,170,720); Computer and Mathematical (1,542,594) and Architecture and engineering (903,151).
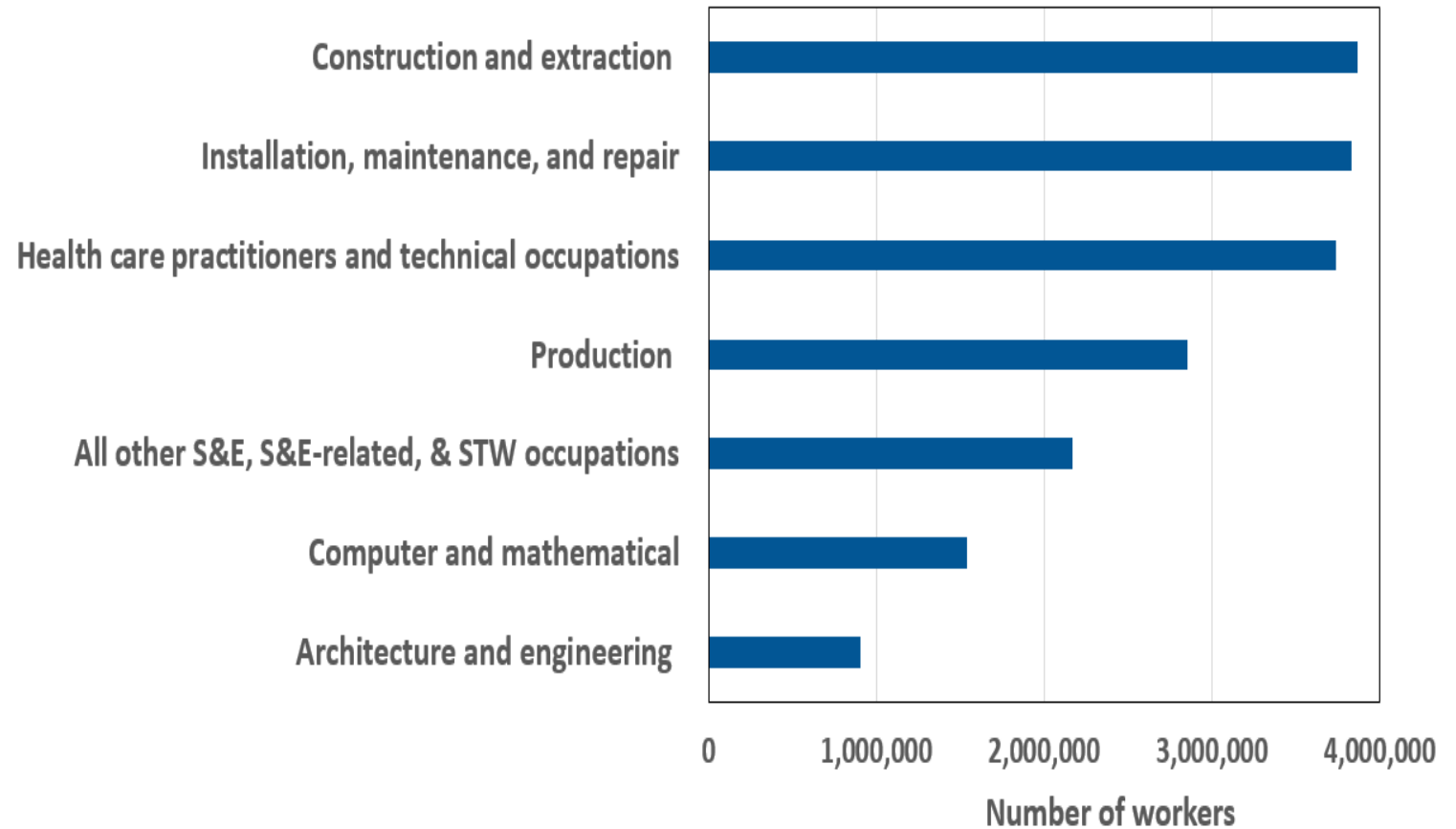
Source: U.S. Census Bureau, special tabulations of the American Community Survey Public Use Microdata (2018), data as of July 2020.

Ten occupations account for 43% of skilled technical workers

The number of skilled technical workers by individual occupations within the STEM categories. The ten occupations listed account for 43% of skilled technical workers. The ten occupations are: Production workers, general (1,204,957 workers); Registered nurses (1,118,426); Carpenters (1,103,312); Licensed practical and licensed vocational nurses (820,672); Automotive service technicians and mechanics (791,214); Electricians (742,879); First-line supervisors of production and operating workers (718,565); First-line supervisors of construction trades and extraction workers (710,972); Plumbers, pipefitters, and steamfitters (507,839); and Maintenance and repair workers, general (492,218).
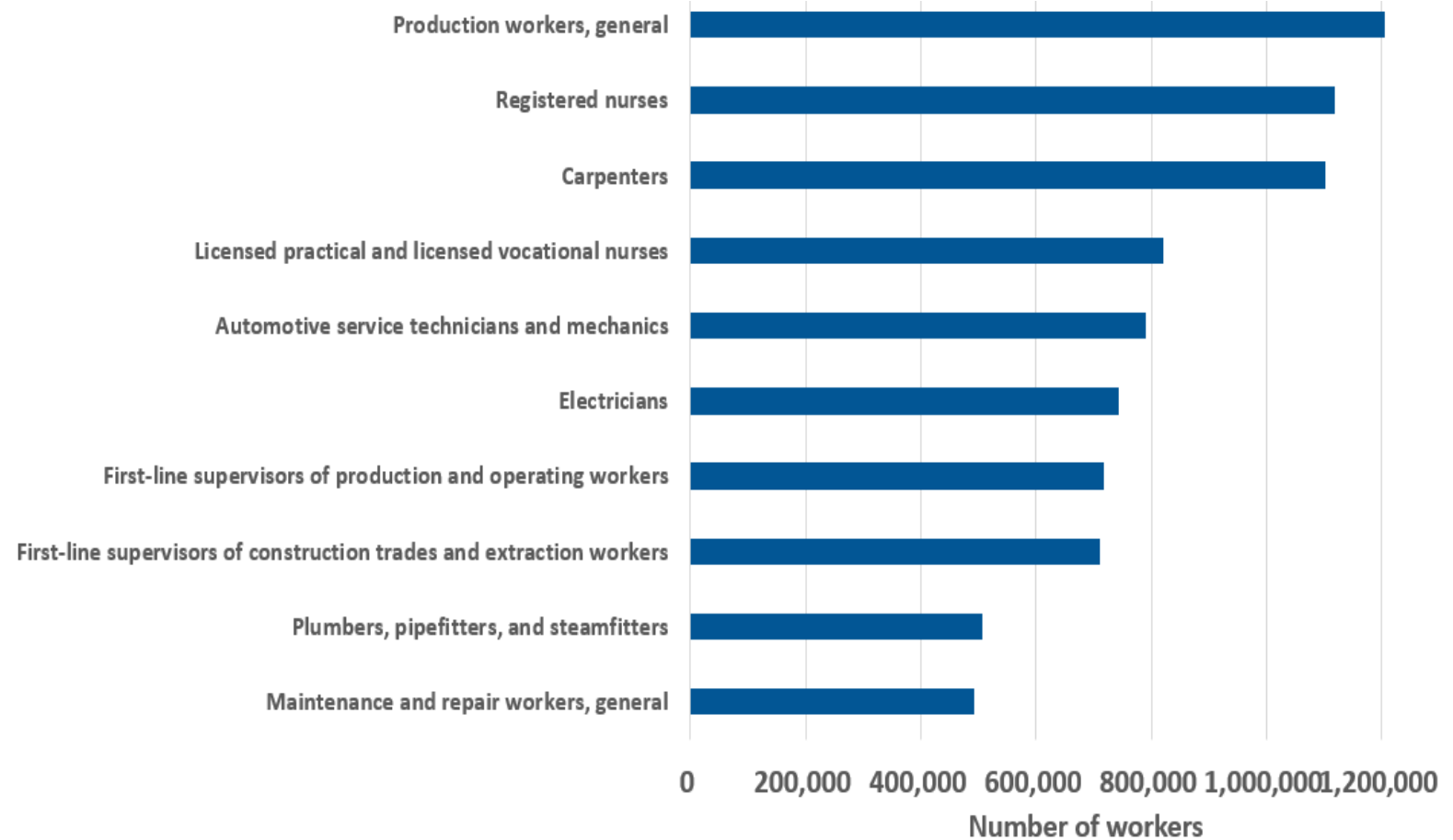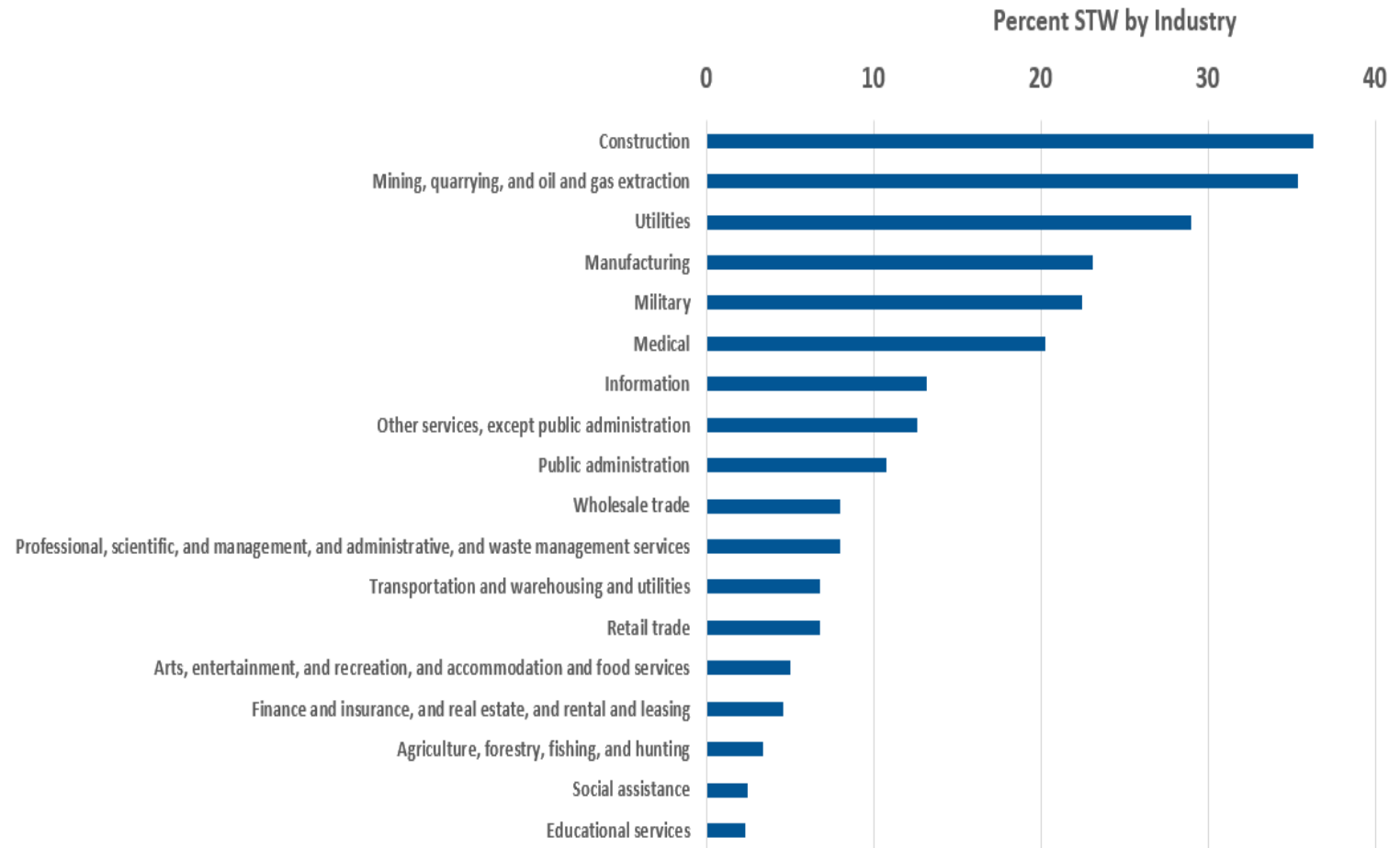

Source: U.S. Census Bureau, special tabulations of the American Community Survey Public Use Microdata (2018), data as of July 2020.

About a third of workers in construction, mining, and utilities are skilled technical workers

The percent of skilled technical workers by industry type. These are 18 industry type listed: Construction (36.3%); Mining, quarrying, and oil and gas extraction (35.4%); Utilities(29.0%); Manufacturing (23.1%); Military (22.5%); Medical (20.3%); Information (13.2%); Other services, except public administration (12.6%); Public administration (10.8%); Wholesale trade (8.0%); Professional, scientific, and management, and administrative, and waste management services (8.0%); Transportation and warehousing and utilities (6.8%);

Retail trade (6.8%); Arts, entertainment, and recreation, and accommodation and food services (5.0%); Finance and insurance, and real estate, and rental and leasing (4.6%); Agriculture, forestry, fishing, and hunting (3.4%); Social assistance (2.5%); and Educational services (2.3%).

Percent STW by Industry

Industry	
Construction	
Mining, quarrying, and oil and gas extraction	
Utilities	
Manufacturing	
Military	
Medical	
Information	
Other services, except public administration	
Public administration	
Wholesale trade	
Professional, scientific, and management, and administrative, and waste management services	
Transportation and warehousing and utilities	
Retail trade	
Arts, entertainment, and recreation, and accommodation and food services	
Finance and insurance, and real estate, and rental and leasing	
Agriculture, forestry, fishing, and hunting	
Social assistance	
Educational services	

Source: U.S. Census Bureau, special tabulations of the American Community Survey Public Use Microdata (2017), data as of May 2019.
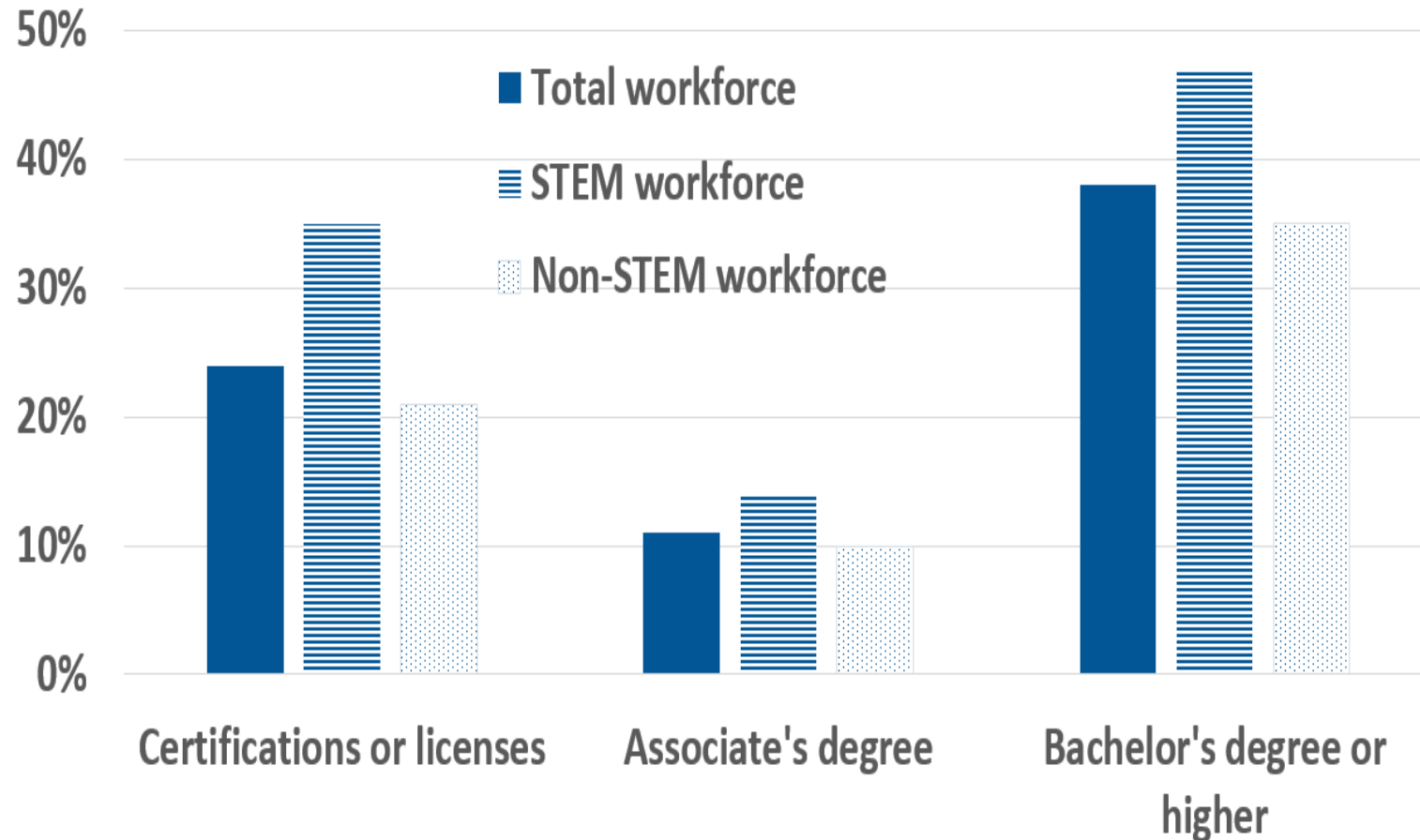
Tell us what you think…

What are the ways occupations and industry data related to the STW can be used in your own work?

There are multiple paths to the skilled technical workforce
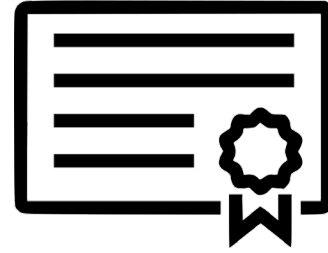
STEM workers are more likely than non-STEM workers to have training beyond high school

Percent of the total, STEM, and non-STEM workforces for three educational groups:
- Certifications or licenses,
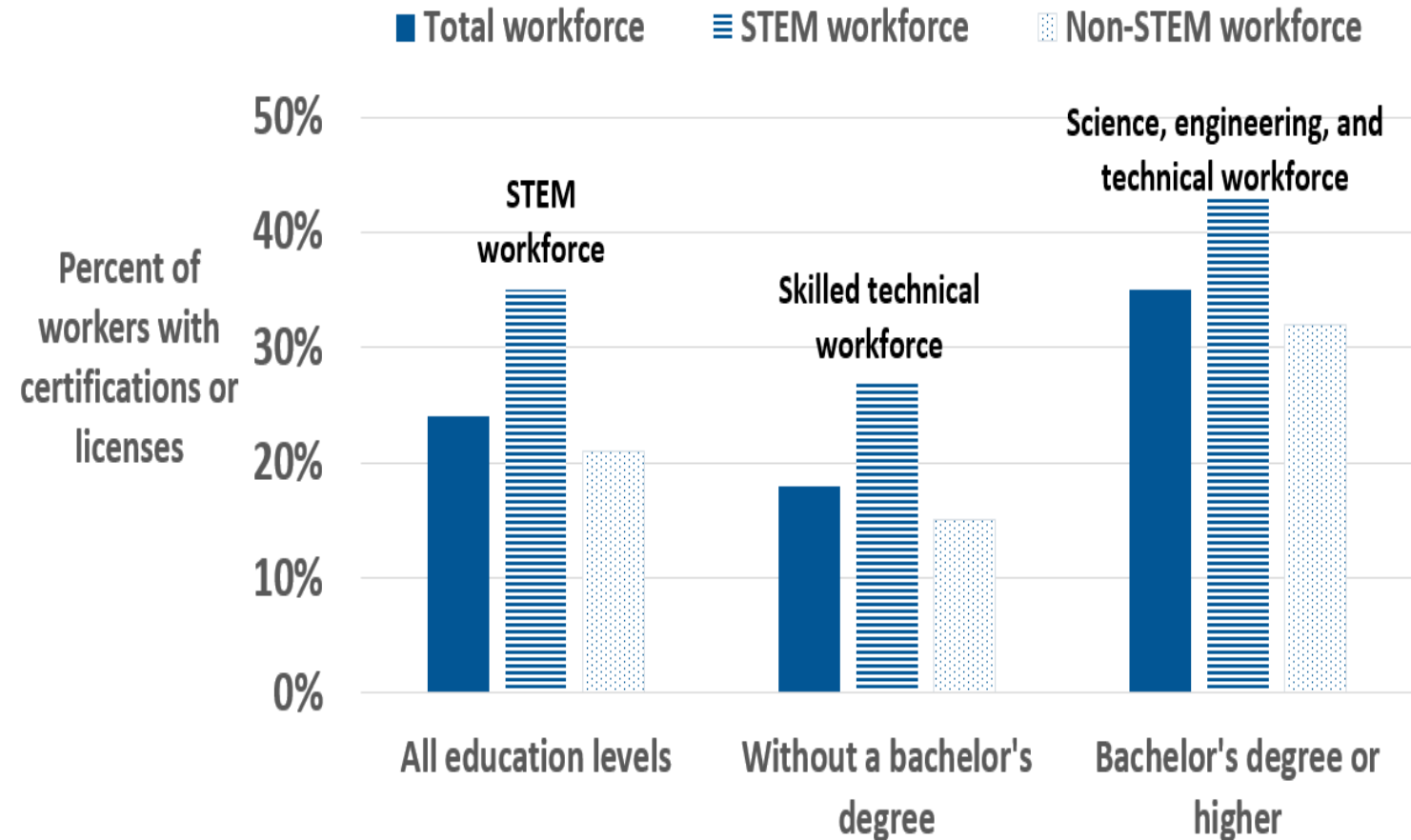- Associate's degree, and
- Bachelor's degree or higher.

For the Certifications or Licenses, : Total workforce (24%); STEM workforce (35%); and Non-STEM workforce (21%). For the Associate's degree: Total workforce (11%); STEM workforce (14%); and Non-STEM workforce (10%). For the Bachelor's degree or higher : Total workforce (38%); STEM workforce (47%); and Non-STEM workforce (35%).

STEM workers are more likely than non-STEM workers to have certifications or licenses

The percent of the total, STEM, and non-STEM workforces with certifications or licenses for three educational groups:

- All Education Levels : Total workforce (24%); STEM workforce (35%); and Non-STEM workforce (21%).
- Without a bachelor's degree, which is the second set of columns: Total workforce (18%); STEM workforce (27%); and Non-STEM workforce (15%).
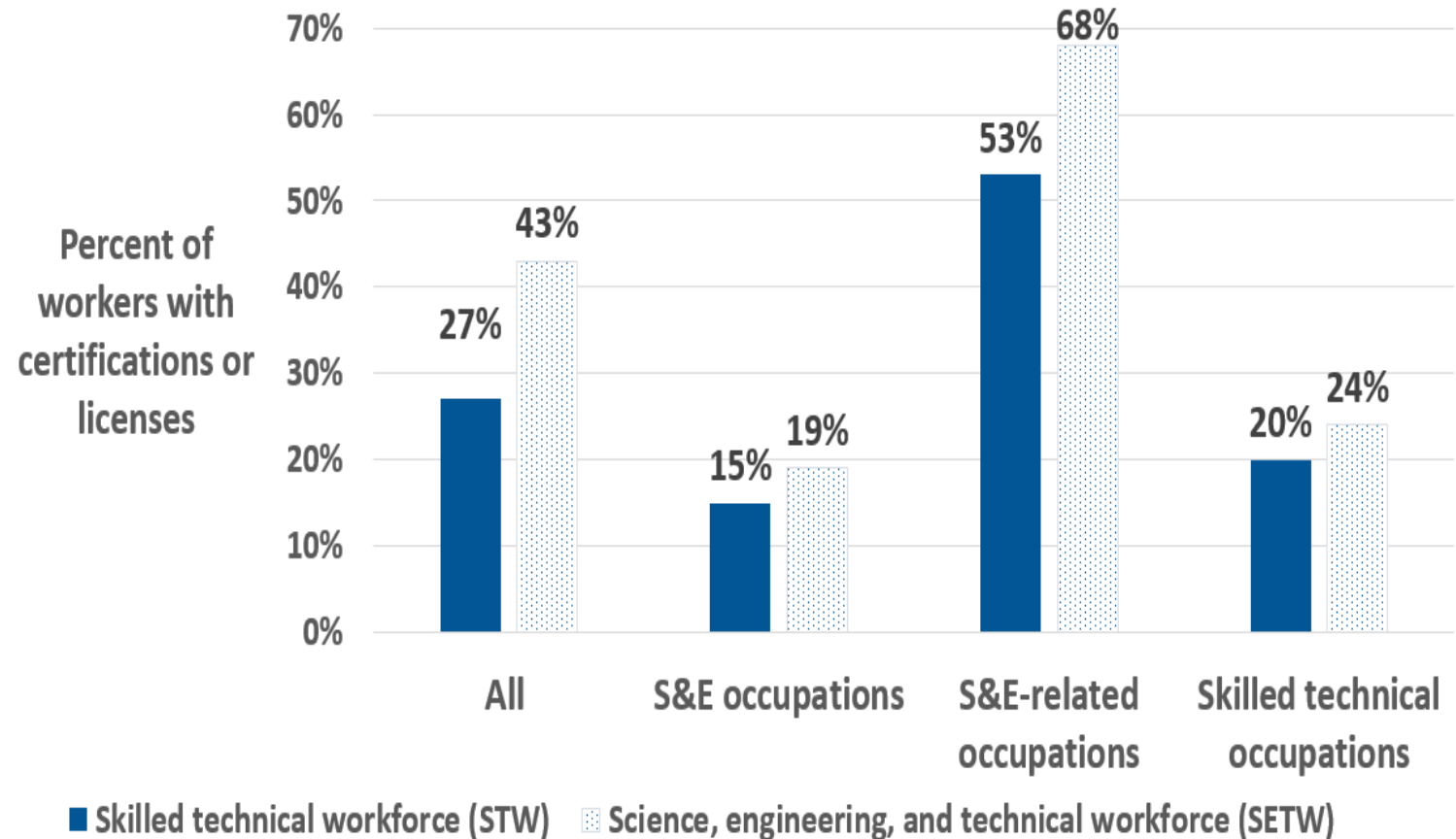- For the 'Bachelor's degree or higher', which is the third and final set of columns: Total workforce (35%); STEM workforce (43%); and Non-STEM workforce (32%).

Legend: ■ Total workforce ≡ STEM workforce ▦ Non-STEM workforce

Percent of workers with certifications or licenses — y-axis: 0%, 10%, 20%, 30%, 40%, 50%

STEM workforce; Skilled technical workforce; Science, engineering, and technical workforce

x-axis: All education levels | Without a bachelor's degree | Bachelor's degree or higher

Science, engineering, and technical workers are more likely than skilled technical workers to have a certification or license.

The percent of the skilled technical workforce (STW) and science & engineering and technical workforce (SETW) with certifications and licenses for four groups:

- All,
- S&E occupation,
- S&E-related occupations, and
- Skilled technical occupations.

The percentages for All: STW (27%) and SETW (43%). The percentages for S&E occupations: STW (15%) and SETW (19%). The percentages for S&E-related occupations: STW (53%) and SETW (68%). The percentages for Skilled technical occupations: STW (20%) and SETW (24%).

Percent of workers with certifications or licenses

	All	S&E occupations	S&E-related occupations	Skilled technical occupations
Skilled technical workforce (STW)	27%	15%	53%	20%
Science, engineering, and technical workforce (SETW)	43%	19%	68%	24%

■ Skilled technical workforce (STW) ▫ Science, engineering, and technical workforce (SETW)

Tell us what you think...

What other information or additional details for the available information would you like to know about STW pathways and how to acquire the skills needed to be a part of the STEM workforce?

Skilled technical workers have better labor market outcomes than other workers without a bachelor's degree.

# Median salaries are higher for the STW than other workers without a bachelor's degree, 2018 (pre-COVID-19)
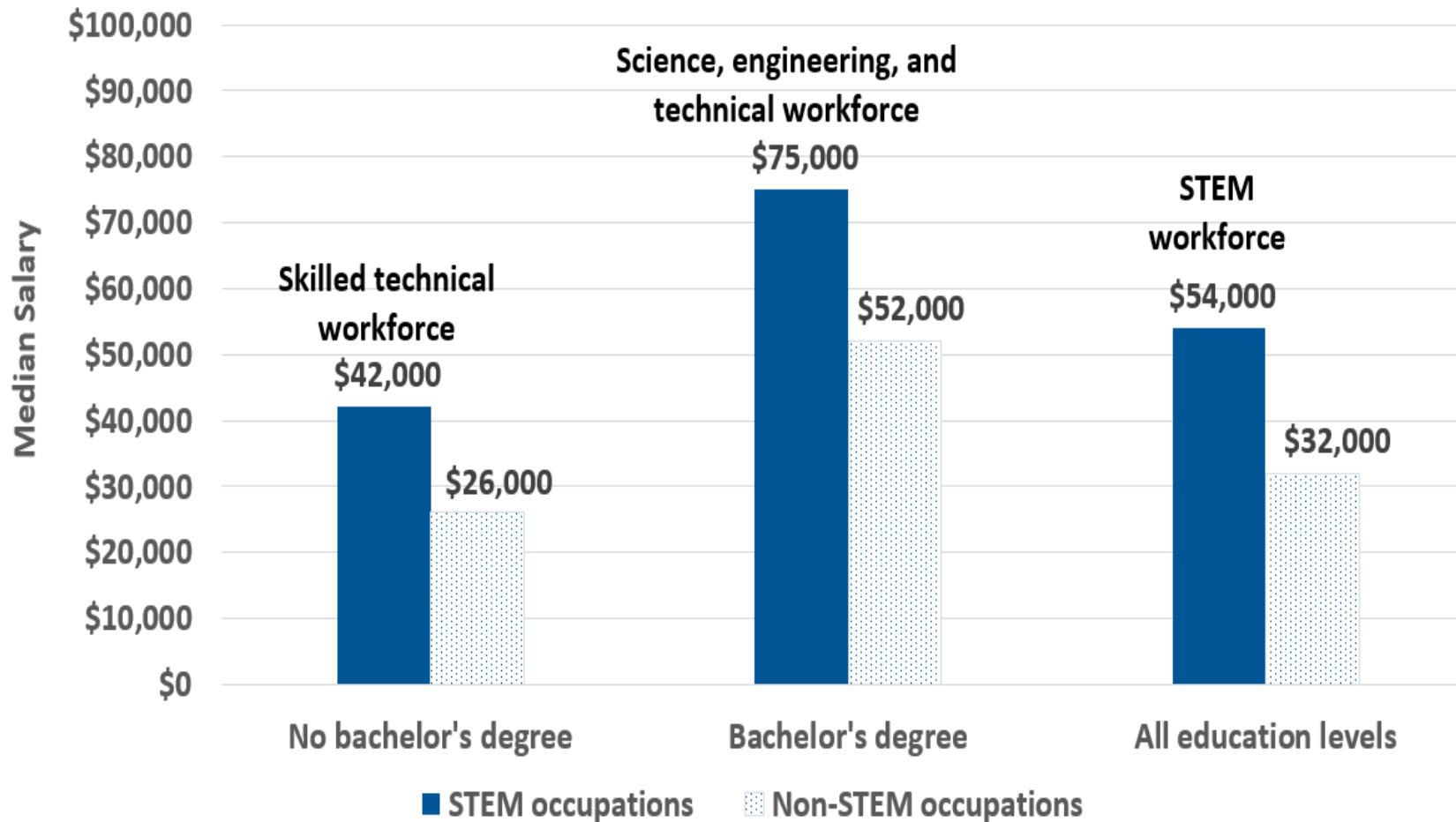
Graph with median salaries of three groups:
- workers no bachelor's degree,
- with a bachelor's degree, and
- all education levels by STEM and non-STEM occupations.

No bachelor's degree group: STEM occupations (42,000 workers) and Non-STEM occupations (26,000). Bachelor's degree group: STEM occupations(75,000) and Non-STEM occupations (52,000). All education levels group: STEM occupations (54,000) and Non-STEM occupations (32,000).

Source: U.S. Census Bureau, special tabulations of the American Community Survey Public Use Microdata (2018), data as of July 2020.

Unemployment rates are lower for the STW than other workers without a bachelor's degree, 2018 (pre-COVID-19)
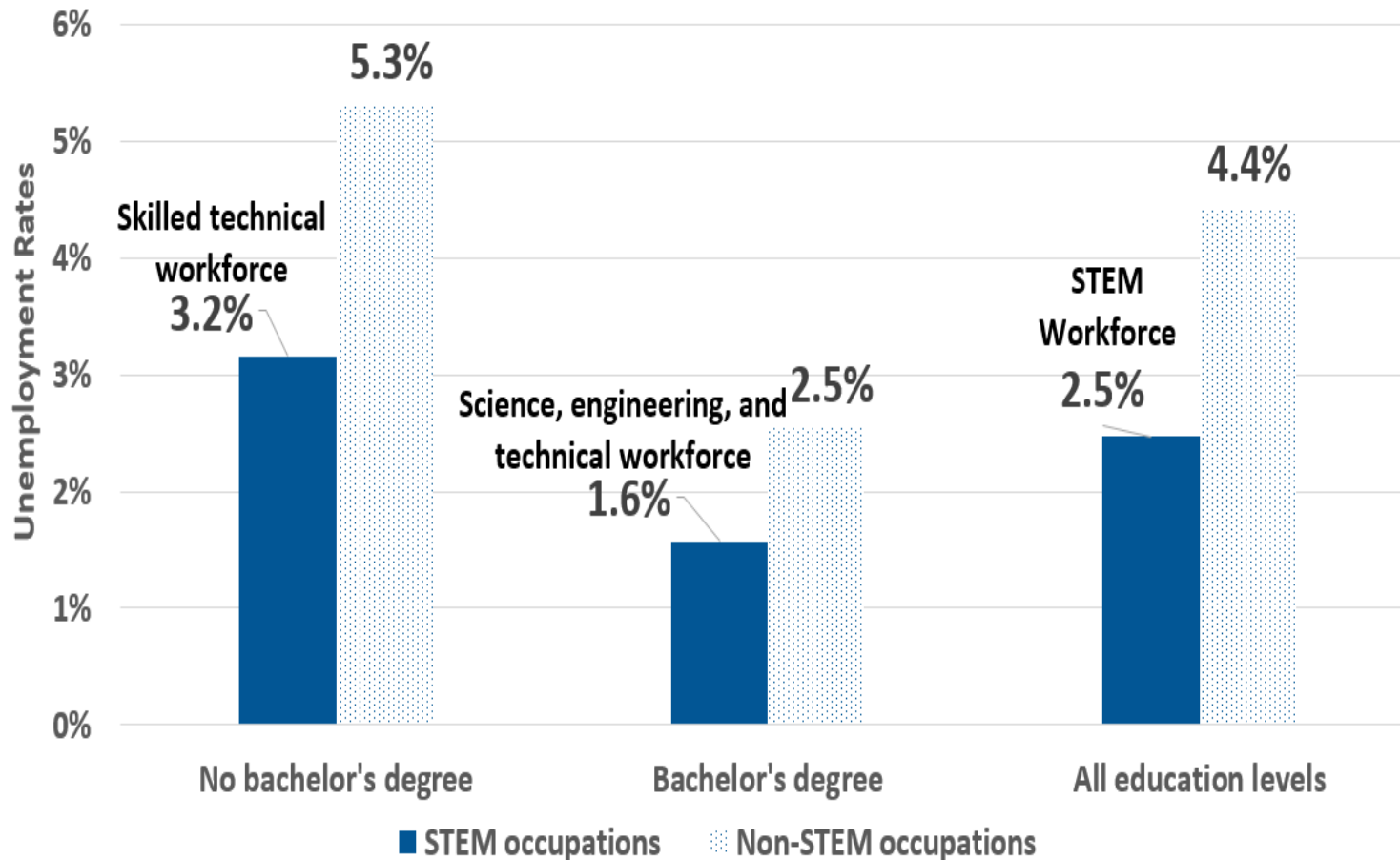

Unemployment rates of workers for three groups:
- No bachelor's degree,
- Bachelor's degree, and
- All education levels by STEM occupations and non-STEM occupations.

No bachelor's degree group (aka skilled technical workforce): STEM occupations (3.2%) and non-STEM occupations (5.3%). Bachelor's degree group (aka science, engineering, and technical workforce): STEM occupations (1.6%) and non-STEM occupations (2.5%). All education levels group: STEM occupations which is the STEM Workforce (2.5%) and non-STEM occupations (4.4%).

Source: U.S. Census Bureau, special tabulations of the American Community Survey Public Use Microdata (2018), data as of July 2020.

STEM workers have had lower unemployment rates than their non-STEM counterparts during the COVID-19 crisis
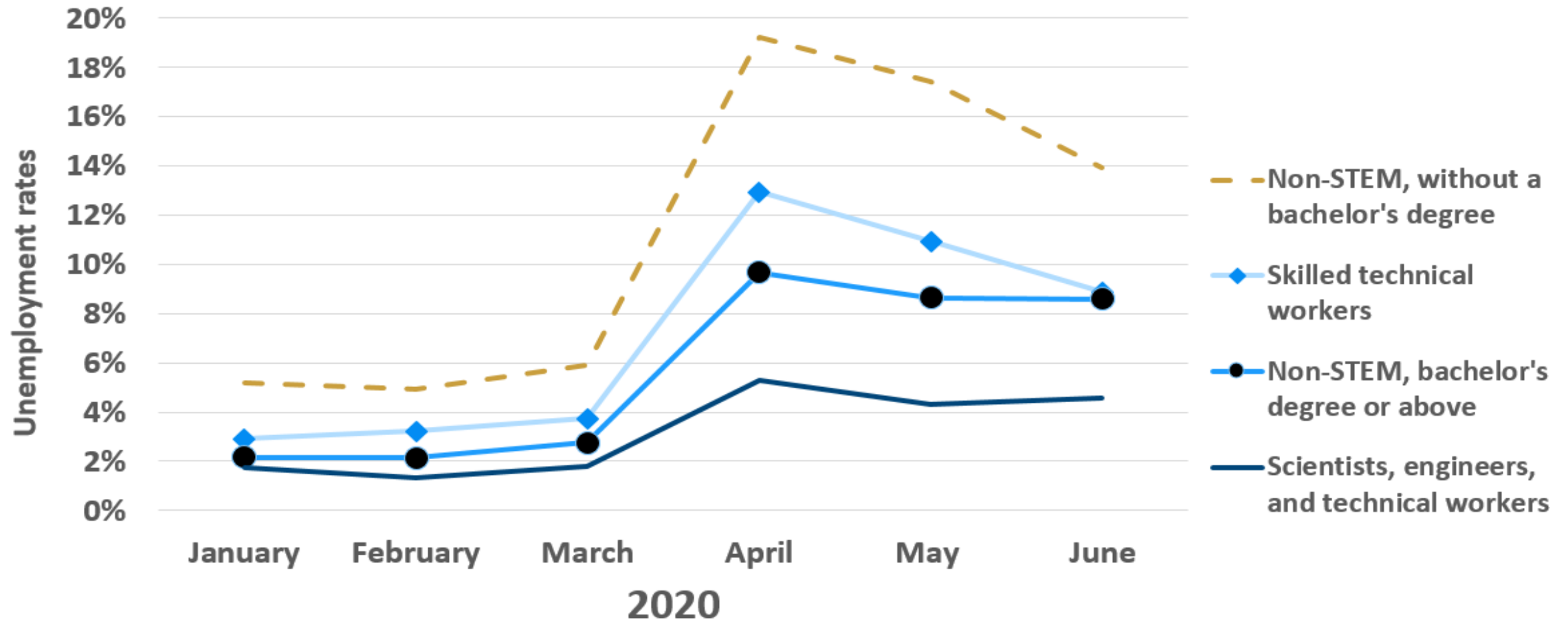
Data table for the line graph.

Tell us what you think…
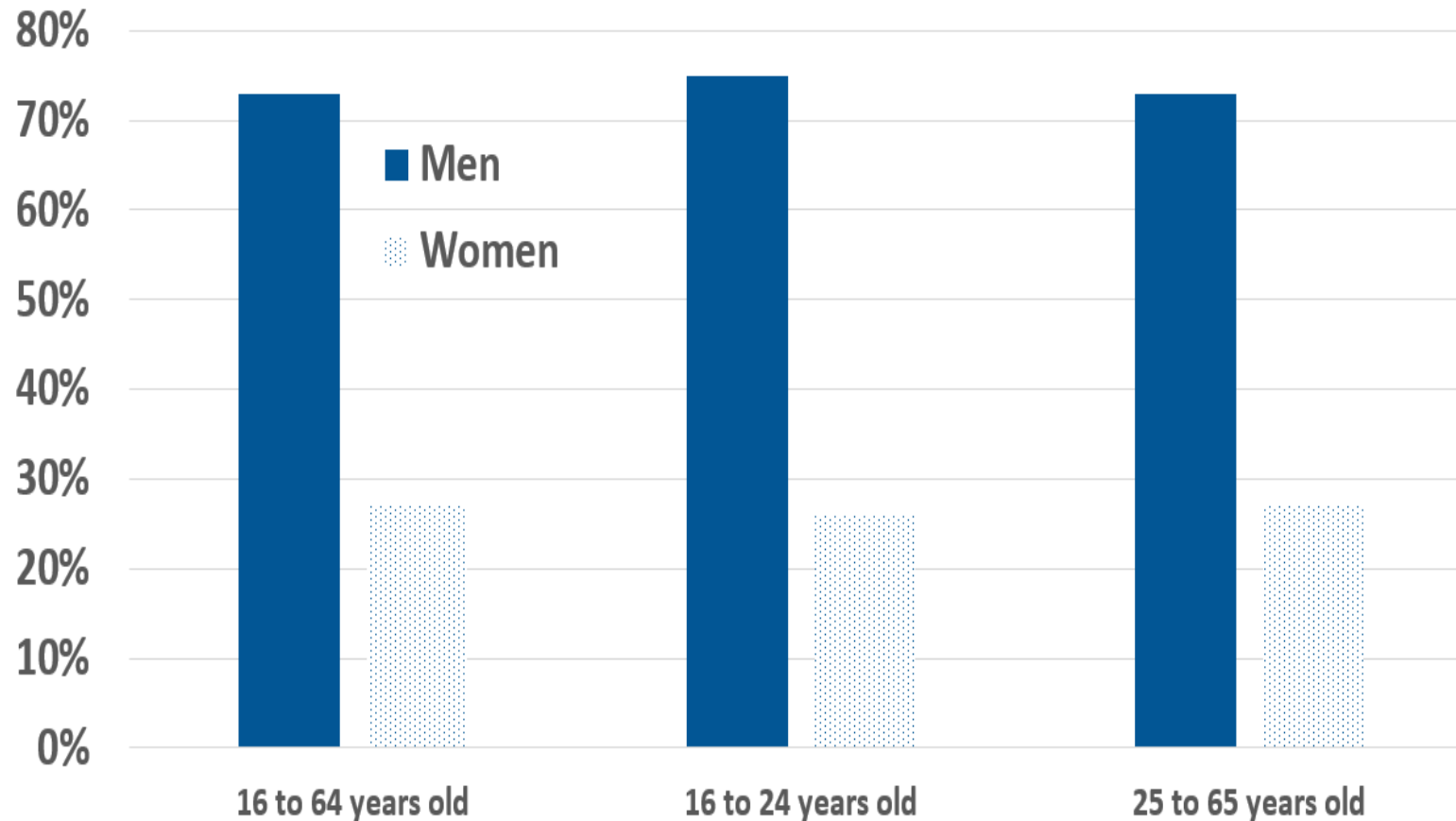
What other labor market outcome information would you like to know about?

The skilled technical workforce provides opportunities for women and underrepresented minorities to work in STEM

# Most skilled technical workers are men regardless of age group

The percent of men and women in the skilled technical workforce for three age groups:

- 16-64 year old: Men (73%) and Women (27%);
- 16-24 year old: Men (75%) and Women (26%); and
- 25 to 65 year old: Men (73%) and Women (27%).

Source: U.S. Census Bureau, special tabulations of the American Community Survey Public Use Microdata (2018), data as of July 2020.

The racial and ethnic distribution of the STW is similar to the total U.S. workforce
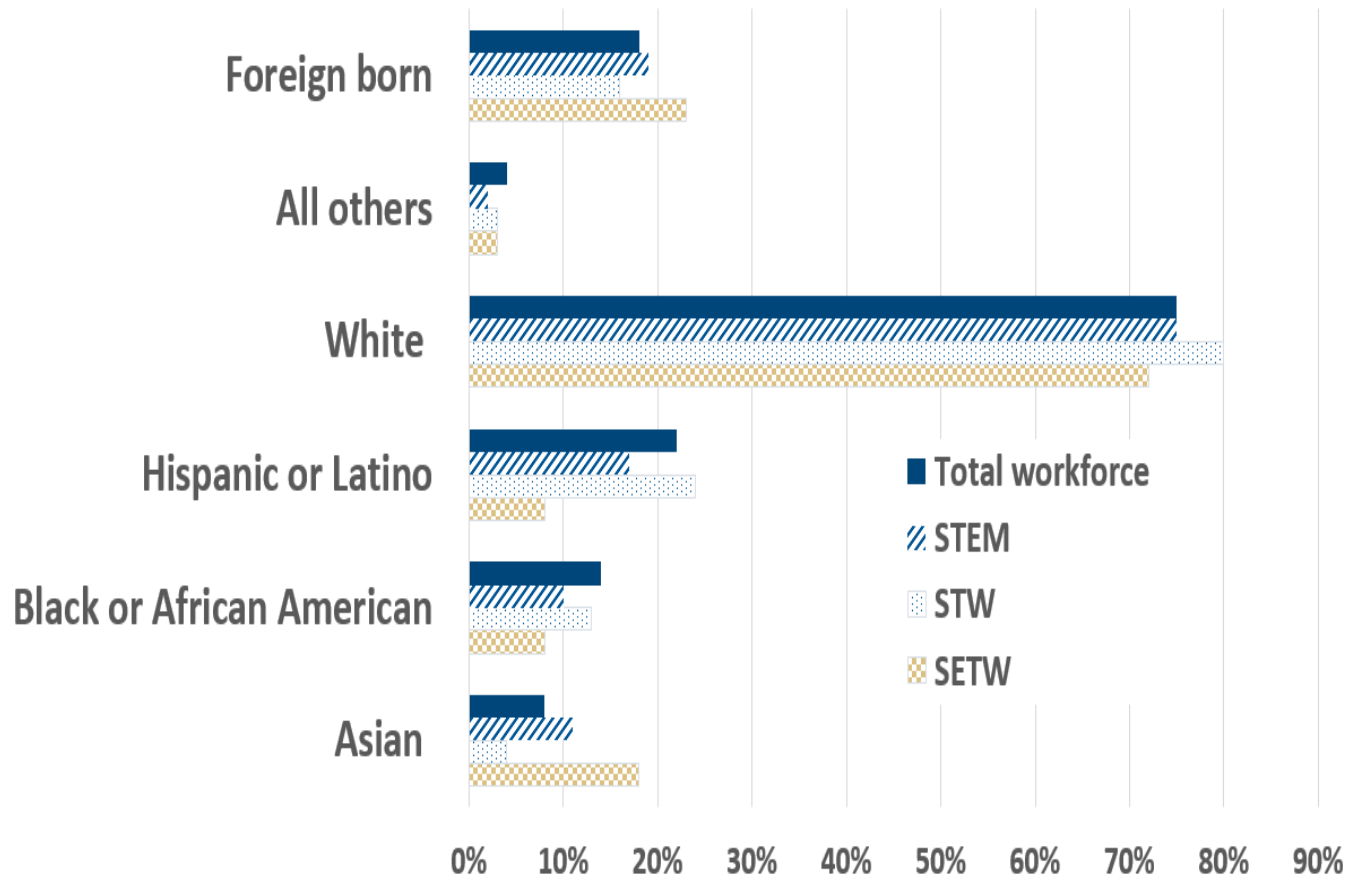
The percent of workers by race, ethnicity, and foreign-born status for the following groups:
- the total workforce
- STEM
- STW, and
- SETW

Data points for the following six racial/ethnic groups are as follows :
- *Foreign born:* Total workforce (18%), STEM (19%), STW (16%), and SETW (23%).
- *All others:* Total workforce (4%), STEM (2%), STW (3%), and SETW (3%).
- *White:* Total workforce (75%), STEM (75%), STW (80%), and SETW (72%).
- *Hispanic or Latino:* Total workforce (22%), STEM (17%), STW(24%), and SETW (8%).
- *Black or African American:* Total workforce (14%), STEM (10%), STW (13%), and SETW (8%).
- *Asian:* Total workforce (8%), STEM (11%), STW (4%), and SETW (18%).

Source: U.S. Census Bureau, special tabulations of the American Community Survey Public Use Microdata (2018), data as of July 2020

Tell us what you think…

What data would you like to see that would help your organization's understanding of the demographic makeup of the STW, SETW, or STEM workforces?

# Defining and measuring the skilled technical workforce: Key takeaways

The STW is made up of workers who use significant levels of S&E expertise and technical knowledge and who do not have a bachelor's degree.

19 M The number of U.S. skilled technical workers (2018).

13% The share of the U.S. workforce who are skilled technical workers.

Defining and measuring the skilled technical workforce:
Key takeaways (cont'd)
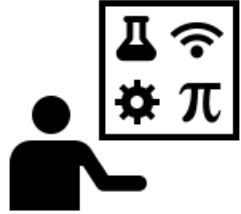
The STW is a SUB-WORKFORCE of the STEM workforce.

3% and 5%   Pre-COVID-19 unemployment rates (Jan 2020): STW and non-STEM workers without a bachelor's degree.

9% and 14%   COVID-19 unemployment rates (June 2020): STW and the non-STEM workers without a bachelor's degree.

Contact: Amy Burke   aburke@nsf.gov

What didn't we talk about today that you'd like
to see in future discussions and analyses of the STW?

Workshop Wrap Up and Next Steps

- STW Initiative workshop #1 Takeaways

- Reminder: Two more STW workshops:
  - "Administrative and Other Supplemental Data Sources for the STW" August 21 @ 1pm EDT

  - "Surveying the STW to Answer Policy-Relevant STEM-Workforce Questions: The 2021 National, Training, Education, and Workforce Survey (NTEWS)" August 28 @ 1pm EDT

- Visit the NCSES STW Initiative website https://www.nsf.gov/statistics/stw/skilled-technical-workforce.cfm

Reach Out for Additional Questions or Comments

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"STEM workers have had lower unemployment rates than their non-STEM counterparts during the COVID-19 crisis"

2020 Month	Non-STEM, without a bachelor's degree (legend: dash line)	Skilled technical workers (legend: diamond-marker line)	Non-STEM, bachelor's degree or above (legend: circle-marker line)	Scientists, engineers, and technical workers (legend: solid line)
January	5.21%	2.92%	2.17%	1.74%
February	4.92%	3.22%	2.15%	1.35%
March	5.91%	3.74%	2.76%	1.77%
April	19.23%	12.93%	9.68%	5.31%
May	17.41%	10.92%	8.65%	4.29%
June	13.91%	8.87%	8.60%	4.58%