National Center for Science and Engineering Statistics

The National Training, Education, and Workforce Survey Pilot: 2022

Data Tables | NSF 25-323 | January 14, 2025

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General Notes

The National Training, Education, and Workforce Survey (NTEWS) Pilot—sponsored by the National Center for Science and Engineering Statistics (NCSES) within the U.S. National Science Foundation (NSF) and by the National Center for Education Statistics (NCES) within the Department of Education—provides data on the educational and training characteristics of the nation's workforce, with a focus on those in the **skilled technical workforce**, which is highly skilled in the science and engineering (S&E) fields but does not possess a bachelor's degree or higher. The NTEWS Pilot samples individuals residing in the United States, ages 16 through 75, and not enrolled in high school. Data from this survey provide information on the prevalence of work-related credentials (vocational certificates, occupational licenses, and industry-recognized certifications) and the relationship between these credentials and employment outcomes. This survey expands other NCSES surveys of the college-educated workforce (National Survey of Recent College Graduates, National Survey of College Graduates, and Survey of Doctorate Recipients) by providing new data on the workforce who do not have a bachelor's degree or higher.

The estimates included in the NTEWS Pilot data tables are not official statistics and should not be used to make official statements or inferences about characteristics of the population or economy.

The NTEWS is in a pilot phase. The 2022 NTEWS Pilot data tables are designated as an experimental statistical product. NCSES releases experimental statistical products to benefit users in the absence of other relevant information and to improve future iterations of data collection. Experimental statistical products may not meet some of NCSES's **quality standards** and, as a result, users should assess the utility limitations of these experimental statistics relative to the intended use.

The first set of tables in this report, 1–9, released in January 2025.

NCSES has reviewed this product for unauthorized disclosure of confidential information and approved its release (NCSES-DRN24-050).

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TABLE 1

Demographic characteristics of the U.S. STEM labor force and U.S. population ages 16–75, by labor force status and occupation: 2022

(Number)

Demographic characteristics	Total	U.S. Labor force					Not in the U.S. labor force
		Employed				Unemployed	
		STEM occupation			Non-STEM occupation		
		S&E	S&E related	STEM middle skill			
Total U.S. population ages 16–75	230,893,000	10,318,000	12,461,000	12,963,000	116,782,000	12,397,000	65,972,000
Education level							
High school diploma or equivalent or less	75,278,000	797,000	715,000	4,937,000	34,525,000	5,723,000	28,581,000
Some college credit, no degree	29,882,000	773,000	379,000	1,604,000	17,455,000	1,755,000	7,917,000
Vocational certificate or diploma	29,097,000	538,000	1,218,000	3,085,000	13,699,000	1,747,000	8,812,000
Associate degree	20,828,000	617,000	2,237,000	1,330,000	9,874,000	1,005,000	5,765,000
Bachelor's degree	47,789,000	4,812,000	3,965,000	1,755,000	26,164,000	1,593,000	9,500,000
Master's degree	20,686,000	2,112,000	1,949,000	206,000	11,730,000	436,000	4,253,000
Doctorate or professional degree	7,333,000	670,000	1,998,000	D	3,336,000	139,000	1,145,000
Age group							
29 and younger	45,704,000	2,187,000	1,967,000	2,164,000	25,706,000	5,351,000	8,328,000
30–39	43,604,000	3,182,000	3,180,000	3,338,000	25,237,000	2,425,000	6,242,000
40–49	39,166,000	2,160,000	3,129,000	2,703,000	23,711,000	1,793,000	5,669,000
50–75	102,419,000	2,789,000	4,185,000	4,758,000	42,129,000	2,828,000	45,732,000
Ethnicity and race							
Hispanic or Latino[a]	44,491,000	1,121,000	1,462,000	3,221,000	24,027,000	3,288,000	11,372,000
Not Hispanic or Latino							
American Indian or Alaska Native	1,721,000	S	S	S	688,000	279,000	575,000
Asian	13,271,000	1,717,000	1,309,000	548,000	5,924,000	709,000	3,065,000
Black or African American	26,156,000	855,000	1,157,000	848,000	12,913,000	2,379,000	8,004,000
Native Hawaiian or Other Pacific Islander	574,000	D	D	D	394,000	D	79,000
White	137,223,000	6,416,000	8,098,000	7,696,000	68,872,000	4,886,000	41,255,000
More than one race	7,457,000	137,000	387,000	544,000	3,964,000	803,000	1,623,000
Sex							
Female	117,920,000	2,764,000	8,093,000	1,606,000	59,560,000	6,540,000	39,356,000
Male	112,973,000	7,554,000	4,368,000	11,357,000	57,222,000	5,857,000	26,616,000
Disability status							
Has a disability[b]	58,681,000	1,512,000	1,293,000	2,563,000	21,257,000	4,078,000	27,979,000
No disability	172,211,000	8,806,000	11,169,000	10,400,000	95,526,000	8,318,000	37,993,000
Marital status							
Married	116,847,000	6,039,000	7,511,000	7,285,000	58,789,000	3,262,000	33,961,000
Living in a marriage-like relationship	12,806,000	695,000	751,000	942,000	7,393,000	863,000	2,162,000
Widowed	7,329,000	S	179,000	110,000	2,082,000	209,000	4,614,000
Divorced	23,243,000	530,000	1,142,000	1,405,000	10,831,000	881,000	8,452,000
Separated	3,708,000	S	S	192,000	1,721,000	287,000	1,387,000
Never married	66,960,000	2,896,000	2,781,000	3,028,000	35,966,000	6,893,000	15,395,000
First language is English							
Yes	190,664,000	8,149,000	10,433,000	10,270,000	95,803,000	10,424,000	55,585,000
No	40,229,000	2,169,000	2,028,000	2,693,000	20,979,000	1,972,000	10,387,000

TABLE 1

Demographic characteristics of the U.S. STEM labor force and U.S. population ages 16–75, by labor force status and occupation: 2022

(Number)

Demographic characteristics	Total	U.S. Labor force					Not in the U.S. labor force
		Employed				Unemployed	
		STEM occupation			Non-STEM occupation		
		S&E	S&E related	STEM middle skill			
Citizenship status							
U.S. citizen or permanent resident	215,218,000	9,245,000	11,928,000	11,674,000	108,237,000	11,475,000	62,659,000
Temporary visa holder	15,675,000	1,073,000	533,000	1,289,000	8,545,000	922,000	3,313,000

D = suppressed to avoid disclosure of confidential information. S = suppressed for reliability; coefficient of variation exceeds publication standards of 50%.

S&E = science and engineering; STEM = science, technology, engineering, and mathematics.

[a] Hispanic or Latino may be any race; race categories exclude Hispanic origin.

[b] The survey asks the degree of difficulty—none, slight, moderate, severe, or unable to do—an individual has in seeing (with glasses), hearing (with hearing aid), walking without assistance, lifting 10 pounds, or concentrating, remembering, or making decisions. Those respondents who answered "moderate," "severe," or "unable to do" for an activity were classified as having a disability.

Note(s):
The National Training, Education, and Workforce Survey Pilot data tables are designated as an experimental statistical product. These estimates are experimental statistics and may not meet all the quality standards of the National Center for Science and Engineering Statistics. Users should take caution when using the estimates presented in these tables. Additional information about the experimental statistical product designation can be found in the "Technical Notes" accompanying these tables.

Numbers are rounded to the nearest 1,000. Detail may not add to total because of rounding.

Source(s):
National Center for Science and Engineering Statistics, National Training, Education, and Workforce Survey Pilot, 2022.

TABLE 2

Demographic characteristics of the U.S. STEM labor force and U.S. population ages 16–75, by sex, labor force status, and occupation: 2022

(Number)

Demographic characteristics	Total	U.S. Labor force					Not in the U.S. labor force
		Employed				Unemployed	
		STEM occupation			Non-STEM occupation		
		S&E	S&E related	STEM middle skill			
Female, total U.S. population ages 16–75	117,920,000	2,764,000	8,093,000	1,606,000	59,560,000	6,540,000	39,356,000
Education level							
High school diploma or equivalent or less	35,750,000	278,000	415,000	514,000	14,965,000	2,832,000	16,746,000
Some college credit, no degree	14,047,000	S	149,000	D	8,740,000	749,000	4,129,000
Vocational certificate or diploma	15,353,000	S	845,000	262,000	7,489,000	986,000	5,550,000
Associate degree	11,867,000	135,000	1,852,000	215,000	5,456,000	453,000	3,756,000
Bachelor's degree	25,084,000	1,041,000	2,549,000	415,000	14,140,000	1,140,000	5,800,000
Master's degree	12,225,000	636,000	1,366,000	99,000	7,055,000	285,000	2,784,000
Doctorate or professional degree	3,594,000	276,000	917,000	D	1,714,000	95,000	592,000
Age group							
29 and younger	22,171,000	579,000	1,427,000	325,000	12,876,000	2,686,000	4,277,000
30–39	22,748,000	851,000	2,257,000	497,000	13,003,000	1,383,000	4,758,000
40–49	20,381,000	597,000	1,938,000	338,000	12,629,000	1,181,000	3,699,000
50–75	52,620,000	737,000	2,472,000	446,000	21,053,000	1,289,000	26,623,000
Ethnicity and race							
Hispanic or Latino[a]	21,975,000	165,000	924,000	403,000	11,319,000	1,939,000	7,225,000
Not Hispanic or Latino							
American Indian or Alaska Native	864,000	D	D	D	360,000	200,000	285,000
Asian	6,818,000	365,000	787,000	S	3,264,000	460,000	1,887,000
Black or African American	14,015,000	424,000	794,000	104,000	7,084,000	1,151,000	4,457,000
Native Hawaiian or Other Pacific Islander	207,000	D	D	D	174,000	D	D
White	69,733,000	1,761,000	5,315,000	857,000	34,989,000	2,311,000	24,500,000
More than one race	4,309,000	D	262,000	S	2,369,000	480,000	969,000
Disability status							
Has a disability[b]	31,654,000	567,000	737,000	436,000	11,637,000	2,334,000	15,943,000
No disability	86,266,000	2,197,000	7,357,000	1,170,000	47,923,000	4,206,000	23,414,000
Marital status							
Married	57,880,000	1,680,000	4,575,000	686,000	28,305,000	1,867,000	20,767,000
Living in a marriage-like relationship	6,154,000	163,000	566,000	123,000	3,467,000	397,000	1,437,000
Widowed	5,492,000	D	167,000	D	1,685,000	112,000	3,488,000
Divorced	13,909,000	140,000	833,000	195,000	6,903,000	474,000	5,363,000
Separated	2,269,000	D	S	D	1,112,000	188,000	877,000
Never married	32,218,000	752,000	1,876,000	574,000	18,088,000	3,501,000	7,425,000
First language is English							
Yes	96,756,000	2,220,000	6,791,000	1,276,000	49,052,000	5,244,000	32,173,000
No	21,164,000	545,000	1,303,000	330,000	10,508,000	1,296,000	7,184,000
Citizenship status							
U.S. citizen or permanent resident	110,462,000	2,535,000	7,799,000	1,423,000	55,958,000	5,944,000	36,804,000

TABLE 2

Demographic characteristics of the U.S. STEM labor force and U.S. population ages 16–75, by sex, labor force status, and occupation: 2022

(Number)

Demographic characteristics	Total	U.S. Labor force					Not in the U.S. labor force
		Employed				Unemployed	
		STEM occupation			Non-STEM occupation		
		S&E	S&E related	STEM middle skill			
Temporary visa holder	7,458,000	229,000	295,000	183,000	3,602,000	596,000	2,553,000
Male, total U.S. population ages 16–75	112,973,000	7,554,000	4,368,000	11,357,000	57,222,000	5,857,000	26,616,000
Education level							
High school diploma or equivalent or less	39,528,000	519,000	300,000	4,423,000	19,560,000	2,891,000	11,836,000
Some college credit, no degree	15,836,000	596,000	230,000	1,503,000	8,714,000	1,006,000	3,787,000
Vocational certificate or diploma	13,744,000	317,000	373,000	2,823,000	6,210,000	760,000	3,261,000
Associate degree	8,961,000	482,000	385,000	1,115,000	4,418,000	552,000	2,009,000
Bachelor's degree	22,705,000	3,771,000	1,416,000	1,340,000	12,024,000	453,000	3,700,000
Master's degree	8,460,000	1,476,000	584,000	108,000	4,674,000	151,000	1,468,000
Doctorate or professional degree	3,738,000	394,000	1,080,000	D	1,622,000	44,000	554,000
Age group							
29 and younger	23,534,000	1,608,000	540,000	1,839,000	12,830,000	2,665,000	4,051,000
30–39	20,856,000	2,331,000	923,000	2,841,000	12,234,000	1,042,000	1,485,000
40–49	18,785,000	1,563,000	1,191,000	2,365,000	11,083,000	612,000	1,971,000
50–75	49,798,000	2,051,000	1,713,000	4,311,000	21,076,000	1,538,000	19,109,000
Ethnicity and race							
Hispanic or Latino[a]	22,516,000	956,000	539,000	2,818,000	12,708,000	1,349,000	4,146,000
Not Hispanic or Latino							
American Indian or Alaska Native	858,000	S	S	S	328,000	79,000	290,000
Asian	6,453,000	1,351,000	522,000	494,000	2,660,000	249,000	1,177,000
Black or African American	12,142,000	431,000	363,000	744,000	5,829,000	1,228,000	3,547,000
Native Hawaiian or Other Pacific Islander	367,000	D	D	D	220,000	D	D
White	67,489,000	4,654,000	2,783,000	6,839,000	33,883,000	2,575,000	16,755,000
More than one race	3,148,000	95,000	125,000	357,000	1,595,000	324,000	653,000
Disability status							
Has a disability[b]	27,027,000	945,000	556,000	2,127,000	9,619,000	1,744,000	12,036,000
No disability	85,945,000	6,609,000	3,812,000	9,230,000	47,603,000	4,112,000	14,579,000
Marital status							
Married	58,968,000	4,358,000	2,936,000	6,599,000	30,484,000	1,396,000	13,194,000
Living in a marriage-like relationship	6,653,000	532,000	184,000	819,000	3,926,000	467,000	725,000
Widowed	1,838,000	S	D	98,000	398,000	97,000	1,127,000
Divorced	9,334,000	391,000	310,000	1,210,000	3,928,000	406,000	3,089,000
Separated	1,439,000	S	D	177,000	609,000	99,000	511,000
Never married	34,742,000	2,144,000	904,000	2,454,000	17,878,000	3,392,000	7,970,000
First language is English							
Yes	93,908,000	5,929,000	3,642,000	8,994,000	46,751,000	5,180,000	23,412,000
No	19,065,000	1,624,000	726,000	2,363,000	10,472,000	677,000	3,204,000
Citizenship status							

TABLE 2

Demographic characteristics of the U.S. STEM labor force and U.S. population ages 16–75, by sex, labor force status, and occupation: 2022

(Number)

Demographic characteristics	Total	U.S. Labor force					Not in the U.S. labor force
		Employed				Unemployed	
		STEM occupation			Non-STEM occupation		
		S&E	S&E related	STEM middle skill			
U.S. citizen or permanent resident	104,755,000	6,710,000	4,129,000	10,251,000	52,279,000	5,530,000	25,855,000
Temporary visa holder	8,218,000	843,000	238,000	1,105,000	4,943,000	327,000	760,000

D = suppressed to avoid disclosure of confidential information. S = suppressed for reliability; coefficient of variation exceeds publication standards of 50%.

S&E = science and engineering; STEM = science, technology, engineering, and mathematics.

[a] Hispanic or Latino may be any race; race categories exclude Hispanic origin.

[b] The survey asks the degree of difficulty—none, slight, moderate, severe, or unable to do—an individual has in seeing (with glasses), hearing (with hearing aid), walking without assistance, lifting 10 pounds, or concentrating, remembering, or making decisions. Those respondents who answered "moderate," "severe," or "unable to do" for an activity were classified as having a disability.

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Numbers are rounded to the nearest 1,000. Detail may not add to total because of rounding.

Source(s):
National Center for Science and Engineering Statistics, National Training, Education, and Workforce Survey Pilot, 2022.

TABLE 3

Demographic characteristics of the U.S skilled technical workforce and U.S. population ages 16–75, by education level, labor force status, and occupation: 2022

(Number)

Demographic characteristics	Total	U.S. Labor force					Not in the U.S. labor force
		Employed				Unemployed	
		STEM occupation			Non-STEM occupation		
		S&E	S&E related	STEM middle skill			
Less than a bachelor's degree, total U.S. population ages 16–75	155,085,000	2,724,000	4,549,000	10,956,000	75,552,000	10,229,000	51,074,000
Education level							
High school diploma or equivalent or less	75,278,000	797,000	715,000	4,937,000	34,525,000	5,723,000	28,581,000
Some college but no degree	29,882,000	773,000	379,000	1,604,000	17,455,000	1,755,000	7,917,000
Vocational certificate	29,097,000	538,000	1,218,000	3,085,000	13,699,000	1,747,000	8,812,000
Associate degree	20,828,000	617,000	2,237,000	1,330,000	9,874,000	1,005,000	5,765,000
Age group							
29 and younger	36,280,000	654,000	876,000	1,735,000	20,562,000	4,744,000	7,709,000
30–39	24,644,000	548,000	987,000	2,720,000	13,620,000	1,901,000	4,868,000
40–49	23,486,000	597,000	1,118,000	2,231,000	13,755,000	1,308,000	4,476,000
50–75	70,675,000	924,000	1,568,000	4,270,000	27,616,000	2,276,000	34,021,000
Ethnicity and race							
Hispanic or Latino[a]	36,753,000	508,000	708,000	2,953,000	19,515,000	2,829,000	10,241,000
Not Hispanic or Latino							
American Indian or Alaska Native	1,493,000	D	D	S	548,000	277,000	519,000
Asian	5,781,000	215,000	285,000	369,000	2,800,000	288,000	1,824,000
Black or African American	20,006,000	397,000	591,000	715,000	9,115,000	2,128,000	7,060,000
Native Hawaiian or Other Pacific Islander	464,000	D	D	D	336,000	D	D
White	85,035,000	1,514,000	2,756,000	6,327,000	40,490,000	3,933,000	30,015,000
More than one race	5,554,000	D	180,000	489,000	2,749,000	721,000	1,358,000
Sex							
Female	77,016,000	811,000	3,262,000	1,093,000	36,650,000	5,020,000	30,181,000
Male	78,069,000	1,914,000	1,288,000	9,863,000	38,902,000	5,209,000	20,893,000
Disability status							
Has a disability[b]	48,169,000	608,000	748,000	2,484,000	16,364,000	3,334,000	24,632,000
No disability	106,916,000	2,117,000	3,801,000	8,472,000	59,188,000	6,895,000	26,442,000
Marital status							
Married	68,659,000	1,415,000	2,380,000	6,339,000	33,294,000	2,349,000	22,883,000
Living in a marriage-like relationship	8,791,000	282,000	279,000	730,000	4,889,000	793,000	1,817,000
Widowed	5,761,000	D	113,000	100,000	1,486,000	173,000	3,806,000
Divorced	17,364,000	120,000	484,000	1,228,000	7,503,000	744,000	7,285,000
Separated	3,015,000	D	S	175,000	1,162,000	265,000	1,336,000
Never married	51,495,000	816,000	1,225,000	2,384,000	27,218,000	5,905,000	13,947,000
First language is English							
Yes	126,565,000	2,363,000	3,991,000	8,641,000	60,270,000	8,660,000	42,639,000
No	28,521,000	361,000	558,000	2,315,000	15,282,000	1,569,000	8,436,000
Citizenship status							
U.S. citizen or permanent resident	143,421,000	2,514,000	4,415,000	9,896,000	68,741,000	9,523,000	48,332,000
Temporary visa holder	11,665,000	210,000	S	1,061,000	6,811,000	706,000	2,742,000
Bachelor's degree or higher, total U.S. population ages 16–75	75,807,000	7,594,000	7,912,000	2,006,000	41,230,000	2,168,000	14,898,000
Education level							
Bachelor's degree	47,789,000	4,812,000	3,965,000	1,755,000	26,164,000	1,593,000	9,500,000

TABLE 3

Demographic characteristics of the U.S skilled technical workforce and U.S. population ages 16–75, by education level, labor force status, and occupation: 2022

(Number)

Demographic characteristics	Total	U.S. Labor force					Not in the U.S. labor force
		Employed				Unemployed	
		STEM occupation			Non-STEM occupation		
		S&E	S&E related	STEM middle skill			
Master's degree	20,686,000	2,112,000	1,949,000	206,000	11,730,000	436,000	4,253,000
Professional degree beyond a bachelor's degree	4,674,000	S	1,474,000	D	2,199,000	116,000	808,000
Doctorate	2,659,000	624,000	524,000	D	1,137,000	D	337,000
Age group							
29 and younger	9,424,000	1,533,000	1,092,000	429,000	5,144,000	607,000	620,000
30–39	18,960,000	2,634,000	2,192,000	618,000	11,617,000	524,000	1,375,000
40–49	15,680,000	1,563,000	2,011,000	471,000	9,956,000	484,000	1,193,000
50–75	31,744,000	1,864,000	2,617,000	488,000	14,513,000	552,000	11,710,000
Ethnicity and race							
Hispanic or Latino[a]	7,737,000	612,000	755,000	268,000	4,512,000	459,000	1,131,000
Not Hispanic or Latino							
American Indian or Alaska Native	229,000	18,000	S	D	140,000	D	S
Asian	7,490,000	1,502,000	1,024,000	179,000	3,124,000	421,000	1,240,000
Black or African American	6,150,000	457,000	566,000	133,000	3,799,000	251,000	944,000
Native Hawaiian or Other Pacific Islander	110,000	D	D	D	58,000	D	D
White	52,188,000	4,902,000	5,342,000	1,369,000	28,382,000	952,000	11,240,000
More than one race	1,903,000	81,000	207,000	S	1,215,000	82,000	264,000
Sex							
Female	40,904,000	1,953,000	4,832,000	513,000	22,910,000	1,520,000	9,176,000
Male	34,904,000	5,640,000	3,080,000	1,493,000	18,320,000	648,000	5,722,000
Disability status							
Has a disability[b]	10,512,000	904,000	545,000	79,000	4,893,000	744,000	3,347,000
No disability	65,296,000	6,689,000	7,367,000	1,928,000	36,337,000	1,423,000	11,551,000
Marital status							
Married	48,188,000	4,624,000	5,132,000	946,000	25,495,000	913,000	11,078,000
Living in a marriage-like relationship	4,015,000	413,000	472,000	212,000	2,504,000	70,000	345,000
Widowed	1,568,000	51,000	66,000	D	596,000	D	808,000
Divorced	5,879,000	411,000	658,000	178,000	3,328,000	137,000	1,167,000
Separated	693,000	14,000	29,000	D	559,000	D	51,000
Never married	15,464,000	2,081,000	1,556,000	644,000	8,748,000	988,000	1,448,000
First language is English							
Yes	64,099,000	5,786,000	6,441,000	1,628,000	35,533,000	1,765,000	12,946,000
No	11,708,000	1,808,000	1,471,000	378,000	5,697,000	403,000	1,952,000
Citizenship status							
U.S. citizen or permanent resident	71,797,000	6,731,000	7,513,000	1,778,000	39,496,000	1,951,000	14,327,000
Temporary visa holder	4,010,000	863,000	399,000	228,000	1,734,000	216,000	571,000

D = suppressed to avoid disclosure of confidential information. S = suppressed for reliability; coefficient of variation exceeds publication standards of 50%.

S&E = science and engineering; STEM = science, technology, engineering, and mathematics.

[a] Hispanic or Latino may be any race; race categories exclude Hispanic origin.

[b] The survey asks the degree of difficulty—none, slight, moderate, severe, or unable to do—an individual has in seeing (with glasses), hearing (with hearing aid), walking without assistance, lifting 10 pounds, or concentrating, remembering, or making decisions. Those respondents who answered "moderate," "severe," or "unable to do" for an activity were classified as having a disability.

Note(s):
The National Training, Education, and Workforce Survey Pilot data tables are designated as an experimental statistical product. These estimates are experimental statistics and may not meet all the quality standards of the National Center for Science and Engineering Statistics. Users should take caution when using the estimates presented in these tables. Additional information about the experimental statistical product designation can be found in the "Technical Notes" accompanying these tables.

Numbers are rounded to the nearest 1,000. Detail may not add to total because of rounding. The skilled technical workforce comprises workers in STEM occupations (S&E, S&E-related, and middle-skills occupations) who do not have an educational attainment of a bachelor's degree or higher.

Source(s):
National Center for Science and Engineering Statistics, National Training, Education, and Workforce Survey Pilot, 2022.

TABLE 4

Characteristics of most important credentials among U.S. STEM and non-STEM workers, by education level and occupation: 2022

(Number)

Characteristics	Total	STEM occupation			Non-STEM occupation
		S&E	S&E related	STEM middle skill	
All education levels, total U.S. population ages 16–75	152,524,000	10,318,000	12,461,000	12,963,000	116,782,000
Has a certification or license					
Yes	40,857,000	1,966,000	8,653,000	2,975,000	27,263,000
No	111,667,000	8,352,000	3,809,000	9,988,000	89,519,000
Average number of certifications or licenses per worker	1.87	2.21	1.82	1.97	1.86
Uses their most important certification or license for their main job					
Yes	35,194,000	1,608,000	8,503,000	2,729,000	22,354,000
No	5,663,000	358,000	149,000	246,000	4,909,000
Reasons for getting the most important certification or license[a]					
Required for the job I was already doing	18,820,000	842,000	3,429,000	2,019,000	12,530,000
Required to get a job I wanted	28,893,000	1,087,000	7,205,000	1,858,000	18,744,000
Allowed me to do more in the job I was already doing	19,152,000	1,235,000	3,356,000	1,838,000	12,722,000
Allowed me to earn more money	24,160,000	1,150,000	5,424,000	1,899,000	15,687,000
Allowed me to move up in my job	16,932,000	1,012,000	3,675,000	1,417,000	10,828,000
It was a new or emerging area in my field	5,849,000	499,000	1,139,000	491,000	3,719,000
I was pursuing my passion	22,514,000	1,097,000	5,340,000	1,270,000	14,807,000
Exploring potential interest in a new job or field	14,411,000	521,000	3,097,000	1,097,000	9,696,000
Someone recommended this field or job to me	10,887,000	352,000	2,509,000	1,002,000	7,023,000
It was free or inexpensive opportunity	8,811,000	573,000	1,197,000	983,000	6,058,000
Other	857,000	D	S	49,000	648,000
Organization that issued the most important certification or license					
City or county government	1,944,000	45,000	62,000	406,000	1,431,000
State government	25,850,000	719,000	6,983,000	1,217,000	16,930,000
Federal government	2,417,000	124,000	136,000	488,000	1,669,000
Professional or trade association	7,384,000	689,000	1,231,000	504,000	4,960,000
Business or company	2,372,000	325,000	198,000	210,000	1,639,000
Other	891,000	64,000	42,000	150,000	634,000
Financial support to obtaining the most important certification or license[a]					
Self (my own money)	28,685,000	1,344,000	6,584,000	1,800,000	18,957,000
Loans from spouse, partner, or family member	2,716,000	D	955,000	S	1,676,000
Money from spouse, partner, or family member (does not need to be repaid)	5,288,000	151,000	1,806,000	S	3,261,000
Financial support or reimbursement from employer	10,418,000	933,000	2,070,000	845,000	6,571,000
Loans from government or private lenders	7,603,000	103,000	2,718,000	164,000	4,618,000
Grants or scholarships from someplace other than employer	5,406,000	57,000	1,967,000	186,000	3,197,000
Financial support from a professional association	633,000	D	135,000	D	422,000
Other	1,945,000	D	261,000	165,000	1,500,000
When the most important certification or license was earned					
1–5 years ago	12,252,000	769,000	2,577,000	968,000	7,939,000
6–10 years ago	6,986,000	335,000	1,507,000	435,000	4,710,000
More than 10 years ago	19,470,000	719,000	4,246,000	1,391,000	13,114,000
Less than a bachelor's degree	93,782,000	2,724,000	4,549,000	10,956,000	75,552,000
Has a certification or license					
Yes	17,729,000	400,000	2,706,000	2,455,000	12,168,000
No	76,053,000	2,324,000	1,843,000	8,501,000	63,385,000
Average number of certifications or licenses per worker	1.91	2.79	1.60	2.04	1.93

TABLE 4

Characteristics of most important credentials among U.S. STEM and non-STEM workers, by education level and occupation: 2022

(Number)

Characteristics	Total	STEM occupation			Non-STEM occupation
		S&E	S&E related	STEM middle skill	
Uses their most important certification or license for their main job					
Yes	14,915,000	277,000	2,673,000	2,275,000	9,690,000
No	2,814,000	123,000	D	180,000	2,478,000
Reasons for getting the most important certification or license[a]					
Required for the job I was already doing	8,696,000	216,000	960,000	1,758,000	5,763,000
Required to get a job I wanted	11,908,000	152,000	2,189,000	1,566,000	8,001,000
Allowed me to do more in the job I was already doing	8,888,000	199,000	1,338,000	1,531,000	5,821,000
Allowed me to earn more money	10,673,000	177,000	2,167,000	1,537,000	6,793,000
Allowed me to move up in my job	7,523,000	164,000	1,511,000	1,204,000	4,644,000
It was a new or emerging area in my field	3,080,000	215,000	413,000	465,000	1,987,000
I was pursuing my passion	9,137,000	206,000	1,898,000	1,098,000	5,935,000
Exploring potential interest in a new job or field	7,164,000	131,000	1,312,000	903,000	4,817,000
Someone recommended this field or job to me	5,094,000	S	1,035,000	751,000	3,247,000
It was free or inexpensive opportunity	5,035,000	S	592,000	767,000	3,552,000
Other	520,000	D	D	D	396,000
Organization that issued the most important certification or license					
City or county government	1,589,000	D	D	391,000	1,174,000
State government	9,814,000	D	2,255,000	1,048,000	6,503,000
Federal government	1,386,000	D	D	328,000	944,000
Professional or trade association	3,171,000	238,000	350,000	418,000	2,165,000
Business or company	1,314,000	69,000	D	120,000	1,091,000
Other	455,000	D	D	150,000	291,000
Financial support to obtaining the most important certification or license[a]					
Self (my own money)	11,638,000	303,000	1,988,000	1,519,000	7,827,000
Loans from spouse, partner, or family member	843,000	D	277,000	D	536,000
Money from spouse, partner, or family member (does not need to be repaid)	1,543,000	D	635,000	D	852,000
Financial support or reimbursement from employer	4,136,000	285,000	476,000	641,000	2,734,000
Loans from government or private lenders	2,182,000	D	1,013,000	164,000	1,002,000
Grants or scholarships from someplace other than employer	1,936,000	D	881,000	184,000	848,000
Financial support from a professional association	315,000	D	D	D	190,000
Other	1,179,000	D	157,000	120,000	895,000
When the most important certification or license was earned					
1–5 years ago	5,727,000	175,000	915,000	764,000	3,872,000
6–10 years ago	2,806,000	S	466,000	354,000	1,923,000
More than 10 years ago	8,024,000	S	1,252,000	1,175,000	5,469,000
Bachelor's degree or higher	58,742,000	7,594,000	7,912,000	2,006,000	41,230,000
Has a certification or license					
Yes	23,128,000	1,566,000	5,947,000	520,000	15,096,000
No	35,614,000	6,027,000	1,965,000	1,487,000	26,134,000
Average number of certifications or licenses per worker	1.84	2.07	1.92	1.61	1.80
Uses their most important certification or license for their main job					
Yes	20,280,000	1,331,000	5,831,000	454,000	12,664,000
No	2,849,000	235,000	116,000	66,000	2,431,000

TABLE 4

Characteristics of most important credentials among U.S. STEM and non-STEM workers, by education level and occupation: 2022

(Number)

Characteristics	Total	STEM occupation			Non-STEM occupation
		S&E	S&E related	STEM middle skill	
Reasons for getting the most important certification or license[a]					
Required for the job I was already doing	10,125,000	627,000	2,469,000	261,000	6,767,000
Required to get a job I wanted	16,985,000	935,000	5,016,000	292,000	10,743,000
Allowed me to do more in the job I was already doing	10,264,000	1,037,000	2,018,000	307,000	6,902,000
Allowed me to earn more money	13,487,000	973,000	3,257,000	362,000	8,894,000
Allowed me to move up in my job	9,409,000	849,000	2,164,000	213,000	6,183,000
It was a new or emerging area in my field	2,769,000	284,000	727,000	S	1,731,000
I was pursuing my passion	13,377,000	891,000	3,443,000	172,000	8,871,000
Exploring potential interest in a new job or field	7,248,000	390,000	1,785,000	193,000	4,880,000
Someone recommended this field or job to me	5,793,000	290,000	1,475,000	252,000	3,777,000
It was free or inexpensive opportunity	3,775,000	448,000	605,000	216,000	2,507,000
Other	337,000	D	56,000	D	252,000
Organization that issued the most important certification or license					
City or county government	355,000	D	57,000	S	257,000
State government	16,036,000	712,000	4,728,000	169,000	10,427,000
Federal government	1,031,000	56,000	89,000	160,000	725,000
Professional or trade association	4,213,000	451,000	881,000	87,000	2,794,000
Business or company	1,058,000	256,000	164,000	S	548,000
Other	436,000	64,000	S	D	343,000
Financial support to obtaining the most important certification or license[a]					
Self (my own money)	17,048,000	1,041,000	4,596,000	281,000	11,130,000
Loans from spouse, partner, or family member	1,873,000	D	678,000	D	1,140,000
Money from spouse, partner, or family member (does not need to be repaid)	3,745,000	151,000	1,172,000	D	2,409,000
Financial support or reimbursement from employer	6,282,000	648,000	1,594,000	204,000	3,836,000
Loans from government or private lenders	5,421,000	100,000	1,705,000	D	3,616,000
Grants or scholarships from someplace other than employer	3,470,000	34,000	1,086,000	D	2,349,000
Financial support from a professional association	318,000	D	72,000	D	232,000
Other	766,000	D	104,000	D	605,000
When the most important certification or license was earned					
1–5 years ago	6,526,000	593,000	1,662,000	203,000	4,067,000
6–10 years ago	4,180,000	271,000	1,041,000	80,000	2,787,000
More than 10 years ago	11,446,000	591,000	2,994,000	216,000	7,645,000

D = suppressed to avoid disclosure of confidential information. S = suppressed for reliability; coefficient of variation exceeds publication standards of 50%.

S&E = science and engineering; STEM = science, technology, engineering, and mathematics.

[a] Some categories allow for multiple responses; therefore, summing subcategory counts may result in greater than the total number.

Note(s):
The National Training, Education, and Workforce Survey Pilot data tables are designated as an experimental statistical product. These estimates are experimental statistics and may not meet all the quality standards of the National Center for Science and Engineering Statistics. Users should take caution when using the estimates presented in these tables. Additional information about the experimental statistical product designation can be found in the "Technical Notes" accompanying these tables.

Numbers are rounded to the nearest 1,000. Detail may not add to total because of rounding. The skilled technical workforce comprises workers in STEM occupations (S&E, S&E-related, and middle-skill occupations) who do not have an educational attainment of a bachelor's degree or higher.

Source(s):
National Center for Science and Engineering Statistics, National Training, Education, and Workforce Survey Pilot, 2022.

TABLE 5

Characteristics of most recent vocational certificates among U.S. STEM and non-STEM workers, by education level and occupation: 2022

(Number)

Characteristics	Total	STEM occupation			Non-STEM occupation
		S&E	S&E related	STEM middle skill	
All education levels, total U.S. population ages 16–75	152,524,000	10,318,000	12,461,000	12,963,000	116,782,000
Earned a vocational certificate					
Yes	30,786,000	1,665,000	2,942,000	3,951,000	22,227,000
No	121,738,000	8,653,000	9,519,000	9,011,000	94,555,000
Uses their most recent vocational certificate used for their main job					
Yes	16,170,000	948,000	2,186,000	2,878,000	10,159,000
No	14,616,000	717,000	756,000	1,073,000	12,069,000
Reasons for getting the most recent vocational certification[a]					
Required for the job I was already doing	7,031,000	354,000	634,000	993,000	5,051,000
Required to get a job I wanted	16,121,000	853,000	1,856,000	1,867,000	11,544,000
Allowed me to do more in the job I was already doing	11,764,000	627,000	1,093,000	1,778,000	8,265,000
Allowed me to earn more money	15,629,000	978,000	1,691,000	2,224,000	10,736,000
Allowed me to move up in my job	9,441,000	518,000	1,217,000	1,533,000	6,173,000
It was a new or emerging area in my field	6,204,000	482,000	607,000	679,000	4,436,000
I was pursuing my passion	17,117,000	968,000	1,655,000	2,118,000	12,376,000
Exploring potential interest in a new job or field	16,910,000	1,052,000	1,372,000	1,896,000	12,589,000
Someone recommended this field or job to me	9,320,000	649,000	778,000	1,359,000	6,535,000
It was free or inexpensive opportunity	9,689,000	653,000	782,000	1,477,000	6,778,000
Other	2,096,000	S	144,000	152,000	1,643,000
Organization that issued the most recent vocational certificate					
A high school	1,996,000	47,000	71,000	238,000	1,640,000
A vocational, trade, or business school	12,550,000	499,000	885,000	1,908,000	9,257,000
A community or technical college	8,217,000	362,000	1,147,000	1,213,000	5,495,000
Another college or university	3,495,000	333,000	471,000	243,000	2,449,000
Someplace else	4,527,000	424,000	367,000	350,000	3,385,000
Financial support to obtaining the most recent vocational certificate[a]					
Self (my own money)	16,864,000	903,000	1,797,000	1,810,000	12,354,000
Loans from spouse, partner, or family member	2,779,000	165,000	362,000	292,000	1,960,000
Money from spouse, partner, or family member (does not need to be repaid)	4,195,000	358,000	516,000	303,000	3,018,000
Financial support or reimbursement from employer	5,117,000	402,000	439,000	930,000	3,346,000
Loans from government or private lenders	6,376,000	310,000	700,000	702,000	4,664,000
Grants or scholarships from someplace other than employer	4,632,000	180,000	567,000	647,000	3,239,000
Financial support from a professional association	1,016,000	D	114,000	S	654,000
Other	2,904,000	129,000	213,000	370,000	2,192,000
Length of time to earn the most recent vocational certificate					
2 full-time school weeks	4,002,000	204,000	286,000	510,000	3,002,000
More than 2 weeks but less than 3 months	5,779,000	341,000	295,000	538,000	4,605,000
3 full-time school months but less than a full-time academic year	6,127,000	438,000	404,000	538,000	4,747,000
1 full-time academic year or more	14,878,000	682,000	1,956,000	2,366,000	9,873,000
When the most recent vocational certificate was earned					
1–5 years ago	8,825,000	514,000	740,000	1,103,000	6,468,000
6–10 years ago	4,458,000	319,000	506,000	416,000	3,217,000
More than 10 years ago	16,089,000	784,000	1,641,000	2,246,000	11,418,000
Less than a bachelor's degree	93,782,000	2,724,000	4,549,000	10,956,000	75,552,000
Earned a vocational certificate					

TABLE 5

Characteristics of most recent vocational certificates among U.S. STEM and non-STEM workers, by education level and occupation: 2022

(Number)

Characteristics	Total	STEM occupation			Non-STEM occupation
		S&E	S&E related	STEM middle skill	
Yes	23,717,000	803,000	1,867,000	3,602,000	17,445,000
No	70,065,000	1,921,000	2,682,000	7,354,000	58,108,000
Uses their most recent vocational certificate used for their main job					
Yes	12,096,000	453,000	1,492,000	2,649,000	7,502,000
No	11,621,000	350,000	375,000	953,000	9,943,000
Reasons for getting the most recent vocational certification[a]					
Required for the job I was already doing	5,364,000	148,000	459,000	895,000	3,862,000
Required to get a job I wanted	12,476,000	357,000	1,192,000	1,684,000	9,243,000
Allowed me to do more in the job I was already doing	8,635,000	246,000	774,000	1,628,000	5,987,000
Allowed me to earn more money	11,974,000	466,000	1,198,000	2,008,000	8,302,000
Allowed me to move up in my job	7,032,000	212,000	887,000	1,429,000	4,504,000
It was a new or emerging area in my field	4,437,000	179,000	434,000	631,000	3,192,000
I was pursuing my passion	12,970,000	436,000	1,128,000	1,993,000	9,413,000
Exploring potential interest in a new job or field	12,825,000	502,000	927,000	1,728,000	9,669,000
Someone recommended this field or job to me	6,748,000	318,000	516,000	1,203,000	4,711,000
It was free or inexpensive opportunity	7,338,000	252,000	553,000	1,345,000	5,188,000
Other	1,659,000	S	87,000	S	1,394,000
Organization that issued the most recent vocational certificate					
A high school	1,868,000	D	63,000	232,000	1,569,000
A vocational, trade, or business school	10,937,000	398,000	661,000	1,806,000	8,073,000
A community or technical college	6,342,000	170,000	688,000	1,131,000	4,352,000
Another college or university	1,476,000	D	215,000	190,000	1,006,000
Someplace else	3,094,000	165,000	241,000	242,000	2,445,000
Financial support to obtaining the most recent vocational certificate[a]					
Self (my own money)	12,511,000	546,000	1,040,000	1,562,000	9,364,000
Loans from spouse, partner, or family member	2,205,000	S	312,000	267,000	1,536,000
Money from spouse, partner, or family member (does not need to be repaid)	3,394,000	253,000	352,000	287,000	2,502,000
Financial support or reimbursement from employer	3,497,000	S	240,000	893,000	2,215,000
Loans from government or private lenders	4,911,000	104,000	426,000	667,000	3,714,000
Grants or scholarships from someplace other than employer	3,834,000	87,000	361,000	638,000	2,749,000
Financial support from a professional association	840,000	D	S	S	537,000
Other	2,425,000	D	118,000	364,000	1,899,000
Length of time to earn the most recent vocational certificate					
2 full-time school weeks	3,021,000	103,000	137,000	469,000	2,312,000
More than 2 weeks but less than 3 months	4,516,000	193,000	201,000	417,000	3,705,000
3 full-time school months but less than a full-time academic year	4,477,000	173,000	198,000	494,000	3,612,000
1 full-time academic year or more	11,702,000	333,000	1,331,000	2,222,000	7,815,000
When the most recent vocational certificate was earned					
1–5 years ago	6,942,000	182,000	536,000	1,061,000	5,164,000
6–10 years ago	3,185,000	184,000	292,000	330,000	2,380,000
More than 10 years ago	12,633,000	412,000	1,029,000	2,043,000	9,149,000
Bachelor's degree or higher	58,742,000	7,594,000	7,912,000	2,006,000	41,230,000
Earned a vocational certificate					

TABLE 5

Characteristics of most recent vocational certificates among U.S. STEM and non-STEM workers, by education level and occupation: 2022

(Number)

Characteristics	Total	STEM occupation			Non-STEM occupation
		S&E	S&E related	STEM middle skill	
Yes	7,069,000	862,000	1,076,000	349,000	4,782,000
No	51,673,000	6,732,000	6,836,000	1,657,000	36,448,000
Uses their most recent vocational certificate used for their main job					
Yes	4,074,000	494,000	694,000	229,000	2,657,000
No	2,995,000	368,000	381,000	120,000	2,126,000
Reasons for getting the most recent vocational certification[a]					
Required for the job I was already doing	1,667,000	206,000	175,000	97,000	1,189,000
Required to get a job I wanted	3,645,000	497,000	664,000	183,000	2,302,000
Allowed me to do more in the job I was already doing	3,129,000	381,000	320,000	151,000	2,278,000
Allowed me to earn more money	3,655,000	512,000	493,000	215,000	2,434,000
Allowed me to move up in my job	2,409,000	306,000	330,000	103,000	1,669,000
It was a new or emerging area in my field	1,767,000	303,000	173,000	48,000	1,244,000
I was pursuing my passion	4,147,000	532,000	527,000	125,000	2,963,000
Exploring potential interest in a new job or field	4,085,000	551,000	446,000	168,000	2,920,000
Someone recommended this field or job to me	2,572,000	331,000	261,000	156,000	1,824,000
It was free or inexpensive opportunity	2,352,000	401,000	230,000	S	1,590,000
Other	436,000	D	57,000	D	249,000
Organization that issued the most recent vocational certificate					
A high school	128,000	43,000	D	D	71,000
A vocational, trade, or business school	1,613,000	101,000	224,000	103,000	1,185,000
A community or technical college	1,876,000	192,000	460,000	81,000	1,143,000
Another college or university	2,020,000	267,000	257,000	52,000	1,443,000
Someplace else	1,433,000	259,000	126,000	S	940,000
Financial support to obtaining the most recent vocational certificate[a]					
Self (my own money)	4,352,000	357,000	757,000	249,000	2,990,000
Loans from spouse, partner, or family member	574,000	S	50,000	D	424,000
Money from spouse, partner, or family member (does not need to be repaid)	801,000	105,000	165,000	D	516,000
Financial support or reimbursement from employer	1,620,000	252,000	199,000	37,000	1,132,000
Loans from government or private lenders	1,465,000	206,000	274,000	35,000	950,000
Grants or scholarships from someplace other than employer	798,000	92,000	206,000	D	490,000
Financial support from a professional association	176,000	D	33,000	D	118,000
Other	480,000	86,000	S	D	293,000
Length of time to earn the most recent vocational certificate					
2 full-time school weeks	981,000	101,000	150,000	D	691,000
More than 2 weeks but less than 3 months	1,263,000	147,000	95,000	S	900,000
3 full-time school months but less than a full-time academic year	1,649,000	265,000	206,000	44,000	1,134,000
1 full-time academic year or more	3,176,000	349,000	625,000	144,000	2,057,000
When the most recent vocational certificate was earned					
1–5 years ago	1,882,000	331,000	204,000	42,000	1,305,000
6–10 years ago	1,273,000	136,000	214,000	86,000	837,000
More than 10 years ago	3,456,000	372,000	612,000	203,000	2,270,000

D = suppressed to avoid disclosure of confidential information. S = suppressed for reliability; coefficient of variation exceeds publication standards of 50%.

S&E = science and engineering; STEM = science, technology, engineering, and mathematics.

[a] Some categories allow for multiple responses; therefore, summing subcategory counts may result in greater than the total number.

Note(s):
The National Training, Education, and Workforce Survey Pilot data tables are designated as an experimental statistical product. These estimates are experimental statistics and may not meet all the quality standards of the National Center for Science and Engineering Statistics. Users should take caution when using the estimates presented in these tables. Additional information about the experimental statistical product designation can be found in the "Technical Notes" accompanying these tables.

Numbers are rounded to the nearest 1,000. Detail may not add to total because of rounding. The skilled technical workforce comprises workers in STEM occupations (S&E, S&E-related, and middle-skill occupations) who do not have an educational attainment of a bachelor's degree or higher.

Source(s):
National Center for Science and Engineering Statistics, National Training, Education, and Workforce Survey Pilot, 2022.

TABLE 6

Characteristics of completed work experience programs among U.S. STEM and non-STEM workers, by education level and occupation: 2022

(Number)

Characteristics	Total	STEM occupation			Non-STEM occupation
		S&E	S&E related	STEM middle skill	
All education levels, total U.S. population ages 16–75	152,524,000	10,318,000	12,461,000	12,963,000	116,782,000
Completed a work experience program					
No	110,982,000	6,244,000	4,811,000	10,546,000	89,382,000
Yes	41,542,000	4,075,000	7,651,000	2,417,000	27,400,000
Type of work experience program					
Apprenticeship	6,010,000	600,000	870,000	812,000	3,729,000
Internship, paid	15,157,000	2,594,000	2,464,000	951,000	9,147,000
Internship, unpaid	20,374,000	880,000	4,317,000	654,000	14,524,000
Work experience related to main job					
Very related	24,909,000	2,277,000	6,304,000	1,427,000	14,902,000
Somewhat related	7,766,000	1,206,000	880,000	470,000	5,210,000
Not related	8,867,000	592,000	467,000	520,000	7,288,000
Frequency of using work experience skills or knowledge for the main job					
All or most of the time	23,272,000	1,751,000	5,997,000	1,420,000	14,103,000
Sometimes	10,557,000	1,518,000	1,185,000	429,000	7,426,000
Almost never	4,646,000	534,000	296,000	400,000	3,416,000
Never	3,067,000	271,000	173,000	168,000	2,455,000
Field of work experience program					
S&E field	3,342,000	1,989,000	291,000	S	935,000
S&E-related field	8,493,000	879,000	4,870,000	260,000	2,485,000
STEM middle-skill occupation field	2,799,000	129,000	55,000	1,380,000	1,235,000
Non-STEM field	26,908,000	1,077,000	2,435,000	650,000	22,746,000
When it was completed					
1–5 years ago	10,724,000	1,473,000	2,173,000	495,000	6,583,000
6–10 years ago	6,251,000	760,000	1,269,000	304,000	3,918,000
More than 10 years ago	21,732,000	1,684,000	3,746,000	1,370,000	14,931,000
Less than a bachelor's degree	93,782,000	2,724,000	4,549,000	10,956,000	75,552,000
Completed a work experience program					
No	80,157,000	2,170,000	2,268,000	9,241,000	66,477,000
Yes	13,625,000	554,000	2,281,000	1,715,000	9,075,000
Type of work experience program					
Apprenticeship	3,029,000	S	322,000	711,000	1,936,000
Internship, paid	4,226,000	229,000	364,000	652,000	2,981,000
Internship, unpaid	6,370,000	265,000	1,595,000	352,000	4,158,000
Work experience related to main job					
Very related	7,544,000	130,000	1,901,000	1,236,000	4,276,000
Somewhat related	2,229,000	221,000	294,000	308,000	1,406,000
Not related	3,852,000	202,000	86,000	171,000	3,393,000
Frequency of using work experience skills or knowledge for the main job					
All or most of the time	7,993,000	211,000	1,851,000	1,260,000	4,670,000
Sometimes	2,771,000	194,000	331,000	209,000	2,037,000
Almost never	1,679,000	D	D	214,000	1,321,000
Never	1,182,000	D	D	D	1,048,000
Field of work experience program					
S&E field	456,000	235,000	D	D	158,000
S&E-related field	2,695,000	D	1,342,000	S	1,193,000
STEM middle-skill occupation field	2,251,000	D	D	1,250,000	925,000

TABLE 6

Characteristics of completed work experience programs among U.S. STEM and non-STEM workers, by education level and occupation: 2022

(Number)

Characteristics	Total	STEM occupation			Non-STEM occupation
		S&E	S&E related	STEM middle skill	
Non-STEM field	8,223,000	239,000	873,000	311,000	6,800,000
When it was completed					
1–5 years ago	4,313,000	187,000	725,000	339,000	3,061,000
6–10 years ago	1,631,000	D	394,000	180,000	977,000
More than 10 years ago	6,010,000	201,000	949,000	1,046,000	3,814,000
Bachelor's degree or higher	58,742,000	7,594,000	7,912,000	2,006,000	41,230,000
Completed a work experience program					
No	30,825,000	4,073,000	2,542,000	1,304,000	22,905,000
Yes	27,917,000	3,521,000	5,370,000	702,000	18,325,000
Type of work experience program					
Apprenticeship	2,981,000	540,000	548,000	100,000	1,793,000
Internship, paid	10,932,000	2,365,000	2,101,000	300,000	6,166,000
Internship, unpaid	14,004,000	615,000	2,722,000	302,000	10,365,000
Work experience related to main job					
Very related	17,365,000	2,146,000	4,403,000	191,000	10,626,000
Somewhat related	5,537,000	984,000	586,000	162,000	3,805,000
Not related	5,014,000	390,000	381,000	349,000	3,894,000
Frequency of using work experience skills or knowledge for the main job					
All or most of the time	15,279,000	1,540,000	4,146,000	160,000	9,433,000
Sometimes	7,786,000	1,324,000	853,000	220,000	5,389,000
Almost never	2,967,000	459,000	227,000	186,000	2,095,000
Never	1,885,000	198,000	143,000	S	1,407,000
Field of work experience program					
S&E field	2,886,000	1,754,000	245,000	S	777,000
S&E-related field	5,798,000	854,000	3,528,000	124,000	1,292,000
STEM middle-skill occupation field	548,000	74,000	D	129,000	310,000
Non-STEM field	18,686,000	838,000	1,563,000	339,000	15,946,000
When it was completed					
1–5 years ago	6,411,000	1,286,000	1,448,000	155,000	3,522,000
6–10 years ago	4,620,000	680,000	875,000	124,000	2,941,000
More than 10 years ago	15,721,000	1,483,000	2,797,000	324,000	11,117,000

D = suppressed to avoid disclosure of confidential information. S = suppressed for reliability; coefficient of variation exceeds publication standards of 50%.

S&E = science and engineering; STEM = science, technology, engineering, and mathematics.

Note(s):
The National Training, Education, and Workforce Survey Pilot data tables are designated as an experimental statistical product. These estimates are experimental statistics and may not meet all the quality standards of the National Center for Science and Engineering Statistics. Users should take caution when using the estimates presented in these tables. Additional information about the experimental statistical product designation can be found in the "Technical Notes" accompanying these tables.

Numbers are rounded to the nearest 1,000. Detail may not add to total because of rounding. The skilled technical workforce comprises workers in STEM occupations (S&E, S&E-related, and middle-skill occupations) who do not have an educational attainment of a bachelor's degree or higher.

Source(s):
National Center for Science and Engineering Statistics, National Training, Education, and Workforce Survey Pilot, 2022.

TABLE 7

U.S. STEM and non-STEM workers, by industry, occupation, sex, and education level: 2022

(Number)

Industry, occupation, and sex	All occupations			STEM occupation			Non-STEM occupation		
	All education levels	Bachelor's degree or higher	Less than a bachelor's degree	All education levels	Bachelor's degree or higher	Less than a bachelor's degree	All education levels	Bachelor's degree or higher	Less than a bachelor's degree
Total U.S. population ages 16–75	152,524,000	58,742,000	93,782,000	35,742,000	17,512,000	18,230,000	116,782,000	41,230,000	75,552,000
Industry									
Agriculture, forestry, fishing and hunting, and mining	2,124,000	342,000	1,782,000	900,000	182,000	718,000	1,224,000	160,000	1,064,000
Construction	9,364,000	1,761,000	7,603,000	3,747,000	574,000	3,173,000	5,617,000	1,187,000	4,430,000
Manufacturing	15,893,000	5,462,000	10,431,000	5,745,000	2,413,000	3,333,000	10,148,000	3,049,000	7,099,000
Wholesale trade	3,140,000	1,100,000	2,041,000	308,000	102,000	206,000	2,832,000	998,000	1,834,000
Retail trade	17,293,000	3,219,000	14,074,000	1,864,000	595,000	1,269,000	15,429,000	2,624,000	12,805,000
Transportation and warehousing	8,444,000	1,573,000	6,871,000	675,000	198,000	477,000	7,769,000	1,376,000	6,393,000
Utilities	1,609,000	470,000	1,140,000	664,000	314,000	350,000	945,000	155,000	790,000
Information	2,674,000	1,641,000	1,033,000	894,000	458,000	436,000	1,779,000	1,183,000	597,000
Finance and insurance, and real estate and rental and leasing	10,701,000	5,606,000	5,095,000	1,350,000	928,000	421,000	9,352,000	4,678,000	4,673,000
Professional, scientific, and management, and administrative and waste management services	18,307,000	9,938,000	8,369,000	5,961,000	3,788,000	2,173,000	12,346,000	6,149,000	6,196,000
Educational services, and health care and social assistance	36,158,000	19,659,000	16,499,000	10,147,000	6,648,000	3,499,000	26,011,000	13,011,000	13,000,000
Arts, entertainment, and recreation, and accommodation and food services	11,883,000	1,968,000	9,915,000	572,000	131,000	440,000	11,311,000	1,837,000	9,475,000
Other services, except public administration	7,375,000	1,949,000	5,426,000	1,160,000	193,000	968,000	6,215,000	1,756,000	4,459,000
Public administration	6,978,000	3,806,000	3,172,000	1,754,000	987,000	767,000	5,224,000	2,819,000	2,405,000
Occupation									
Management	17,996,000	10,910,000	7,085,000	2,514,000	1,497,000	1,017,000	15,482,000	9,413,000	6,069,000
Business	5,838,000	3,548,000	2,290,000	345,000	117,000	227,000	5,493,000	3,431,000	2,062,000
Financial operations	3,035,000	1,940,000	1,095,000	151,000	82,000	S	2,884,000	1,858,000	1,025,000
Computer and mathematical	6,532,000	4,508,000	2,025,000	6,532,000	4,508,000	2,025,000	D	D	D
Architecture and engineering	3,408,000	2,264,000	1,144,000	3,408,000	2,264,000	1,144,000	D	D	D
Life, physical, and social science	1,726,000	1,561,000	166,000	1,726,000	1,561,000	166,000	D	D	D
Community and social service	3,217,000	2,334,000	882,000	D	D	D	3,217,000	2,334,000	882,000
Legal	1,655,000	1,379,000	276,000	D	D	D	1,655,000	1,379,000	276,000
Education, training, and library	9,118,000	7,023,000	2,094,000	D	D	D	9,118,000	7,023,000	2,094,000

TABLE 7

U.S. STEM and non-STEM workers, by industry, occupation, sex, and education level: 2022

(Number)

Industry, occupation, and sex	All occupations			STEM occupation			Non-STEM occupation		
	All education levels	Bachelor's degree or higher	Less than a bachelor's degree	All education levels	Bachelor's degree or higher	Less than a bachelor's degree	All education levels	Bachelor's degree or higher	Less than a bachelor's degree
Arts, design, entertainment, sports, and media	3,566,000	2,092,000	1,474,000	558,000	280,000	279,000	3,008,000	1,812,000	1,196,000
Health diagnosing and treating practitioner and other technical[a]	6,260,000	4,871,000	1,389,000	6,260,000	4,871,000	1,389,000	D	D	D
Health technologist and technician[a]	2,905,000	911,000	1,994,000	2,905,000	911,000	1,994,000	D	D	D
Healthcare support	5,787,000	791,000	4,996,000	D	D	D	5,787,000	791,000	4,996,000
Protective service	2,792,000	794,000	1,998,000	159,000	S	116,000	2,633,000	751,000	1,882,000
Food preparation and serving related	7,009,000	507,000	6,502,000	283,000	D	263,000	6,725,000	486,000	6,239,000
Building and grounds cleaning and maintenance	5,039,000	601,000	4,438,000	D	D	D	5,039,000	601,000	4,438,000
Personal care and service	4,325,000	947,000	3,378,000	D	D	D	4,325,000	947,000	3,378,000
Sales and related	12,948,000	3,731,000	9,218,000	D	D	D	12,903,000	3,713,000	9,189,000
Office and administrative support	17,406,000	4,312,000	13,094,000	D	D	D	17,406,000	4,312,000	13,094,000
Farming, fishing, and forestry	720,000	S	669,000	D	D	D	720,000	S	669,000
Construction	6,313,000	552,000	5,761,000	3,586,000	302,000	3,285,000	2,727,000	250,000	2,476,000
Extraction	77,000	D	77,000	D	D	D	S	D	S
Installation, maintenance, and repair	4,301,000	443,000	3,858,000	4,012,000	383,000	3,629,000	289,000	D	228,000
Production	8,367,000	1,026,000	7,341,000	3,142,000	624,000	2,518,000	5,225,000	402,000	4,823,000
Transportation and material moving	11,561,000	1,354,000	10,206,000	98,000	D	D	11,462,000	1,323,000	10,139,000
Female	72,024,000	30,208,000	41,815,000	12,464,000	7,298,000	5,165,000	59,560,000	22,910,000	36,650,000
Industry									
Agriculture, forestry, fishing and hunting, and mining	436,000	98,000	338,000	123,000	S	D	313,000	D	289,000
Construction	1,181,000	446,000	735,000	120,000	D	S	1,061,000	424,000	637,000
Manufacturing	4,283,000	1,715,000	2,568,000	943,000	465,000	478,000	3,340,000	1,250,000	2,089,000
Wholesale trade	883,000	488,000	395,000	74,000	70,000	D	809,000	418,000	392,000
Retail trade	7,895,000	1,641,000	6,254,000	654,000	278,000	376,000	7,241,000	1,363,000	5,878,000
Transportation and warehousing	2,339,000	420,000	1,918,000	D	D	D	2,242,000	393,000	1,849,000
Utilities	439,000	109,000	330,000	84,000	73,000	D	355,000	D	319,000
Information	873,000	591,000	282,000	S	48,000	S	723,000	543,000	180,000
Finance and insurance, and real estate and rental and leasing	5,765,000	2,769,000	2,996,000	555,000	357,000	198,000	5,210,000	2,412,000	2,798,000
Professional, scientific, and management, and administrative and waste management services	8,276,000	4,539,000	3,737,000	2,001,000	1,206,000	795,000	6,275,000	3,334,000	2,941,000

TABLE 7

U.S. STEM and non-STEM workers, by industry, occupation, sex, and education level: 2022

(Number)

Industry, occupation, and sex	All occupations			STEM occupation			Non-STEM occupation		
	All education levels	Bachelor's degree or higher	Less than a bachelor's degree	All education levels	Bachelor's degree or higher	Less than a bachelor's degree	All education levels	Bachelor's degree or higher	Less than a bachelor's degree
Educational services, and health care and social assistance	26,295,000	13,599,000	12,696,000	6,764,000	4,194,000	2,570,000	19,531,000	9,405,000	10,126,000
Arts, entertainment, and recreation, and accommodation and food services	6,192,000	872,000	5,320,000	268,000	D	235,000	5,924,000	840,000	5,085,000
Other services, except public administration	3,929,000	1,130,000	2,799,000	140,000	D	D	3,789,000	1,047,000	2,743,000
Public administration	3,171,000	1,750,000	1,421,000	492,000	369,000	123,000	2,680,000	1,381,000	1,299,000
Occupation									
Management	7,686,000	5,021,000	2,665,000	754,000	561,000	192,000	6,932,000	4,460,000	2,472,000
Business	3,204,000	1,938,000	1,266,000	S	D	S	3,101,000	1,911,000	1,190,000
Financial operations	1,787,000	991,000	796,000	89,000	D	D	1,698,000	960,000	738,000
Computer and mathematical	1,730,000	1,148,000	582,000	1,730,000	1,148,000	582,000	D	D	D
Architecture and engineering	624,000	327,000	297,000	624,000	327,000	297,000	D	D	D
Life, physical, and social science	879,000	814,000	S	879,000	814,000	S	D	D	D
Community and social service	2,219,000	1,573,000	646,000	D	D	D	2,219,000	1,573,000	646,000
Legal	835,000	628,000	206,000	D	D	D	835,000	628,000	206,000
Education, training, and library	6,856,000	5,219,000	1,637,000	D	D	D	6,856,000	5,219,000	1,637,000
Arts, design, entertainment, sports, and media	1,779,000	986,000	793,000	176,000	46,000	S	1,603,000	940,000	663,000
Health diagnosing and treating practitioner and other technical[a]	4,636,000	3,429,000	1,207,000	4,636,000	3,429,000	1,207,000	D	D	D
Health technologist and technician[a]	2,308,000	587,000	1,721,000	2,308,000	587,000	1,721,000	D	D	D
Healthcare support	4,825,000	574,000	4,251,000	D	D	D	4,825,000	574,000	4,251,000
Protective service	659,000	257,000	402,000	D	D	D	637,000	235,000	402,000
Food preparation and serving related	3,556,000	193,000	3,363,000	S	D	S	3,458,000	193,000	3,265,000
Building and grounds cleaning and maintenance	1,864,000	281,000	1,582,000	D	D	D	1,864,000	281,000	1,582,000
Personal care and service	3,088,000	555,000	2,533,000	D	D	D	3,088,000	555,000	2,533,000
Sales and related	6,416,000	1,803,000	4,613,000	D	D	D	6,416,000	1,803,000	4,613,000
Office and administrative support	12,296,000	3,052,000	9,244,000	D	D	D	12,296,000	3,052,000	9,244,000
Farming, fishing, and forestry	241,000	D	226,000	D	D	D	241,000	D	226,000
Construction	329,000	D	329,000	212,000	D	212,000	116,000	D	116,000
Extraction	D	D	D	D	D	D	D	D	D

TABLE 7

U.S. STEM and non-STEM workers, by industry, occupation, sex, and education level: 2022

(Number)

Industry, occupation, and sex	All occupations			STEM occupation			Non-STEM occupation		
	All education levels	Bachelor's degree or higher	Less than a bachelor's degree	All education levels	Bachelor's degree or higher	Less than a bachelor's degree	All education levels	Bachelor's degree or higher	Less than a bachelor's degree
Installation, maintenance, and repair	234,000	D	S	234,000	D	S	D	D	D
Production	1,964,000	432,000	1,532,000	600,000	204,000	396,000	1,364,000	228,000	1,136,000
Transportation and material moving	1,945,000	243,000	1,702,000	D	D	D	1,945,000	243,000	1,702,000
Male	80,501,000	28,534,000	51,967,000	23,278,000	10,214,000	13,064,000	57,222,000	18,320,000	38,902,000
Industry									
Agriculture, forestry, fishing and hunting, and mining	1,688,000	244,000	1,444,000	777,000	108,000	669,000	911,000	136,000	775,000
Construction	8,183,000	1,315,000	6,867,000	3,626,000	552,000	3,075,000	4,556,000	763,000	3,793,000
Manufacturing	11,610,000	3,747,000	7,863,000	4,802,000	1,948,000	2,854,000	6,808,000	1,799,000	5,009,000
Wholesale trade	2,257,000	612,000	1,645,000	234,000	31,000	203,000	2,023,000	581,000	1,443,000
Retail trade	9,398,000	1,578,000	7,820,000	1,210,000	317,000	893,000	8,189,000	1,261,000	6,927,000
Transportation and warehousing	6,105,000	1,153,000	4,952,000	578,000	170,000	408,000	5,527,000	983,000	4,544,000
Utilities	1,170,000	360,000	810,000	580,000	242,000	339,000	590,000	118,000	471,000
Information	1,800,000	1,050,000	751,000	744,000	410,000	334,000	1,057,000	640,000	417,000
Finance and insurance, and real estate and rental and leasing	4,936,000	2,837,000	2,099,000	795,000	571,000	223,000	4,141,000	2,266,000	1,875,000
Professional, scientific, and management, and administrative and waste management services	10,031,000	5,399,000	4,632,000	3,960,000	2,583,000	1,377,000	6,071,000	2,816,000	3,255,000
Educational services, and health care and social assistance	9,863,000	6,060,000	3,804,000	3,383,000	2,454,000	929,000	6,480,000	3,606,000	2,874,000
Arts, entertainment, and recreation, and accommodation and food services	5,691,000	1,096,000	4,595,000	304,000	99,000	205,000	5,387,000	997,000	4,390,000
Other services, except public administration	3,446,000	819,000	2,628,000	1,021,000	109,000	911,000	2,425,000	709,000	1,716,000
Public administration	3,807,000	2,056,000	1,750,000	1,262,000	618,000	644,000	2,544,000	1,438,000	1,106,000
Occupation									
Management	10,310,000	5,889,000	4,421,000	1,760,000	936,000	824,000	8,550,000	4,953,000	3,597,000
Business	2,634,000	1,611,000	1,024,000	242,000	90,000	S	2,393,000	1,521,000	872,000
Financial operations	1,248,000	949,000	299,000	63,000	S	D	1,186,000	898,000	288,000
Computer and mathematical	4,802,000	3,360,000	1,443,000	4,802,000	3,360,000	1,443,000	D	D	D
Architecture and engineering	2,785,000	1,937,000	848,000	2,785,000	1,937,000	848,000	D	D	D
Life, physical, and social science	847,000	747,000	101,000	847,000	747,000	101,000	D	D	D

TABLE 7

U.S. STEM and non-STEM workers, by industry, occupation, sex, and education level: 2022

(Number)

Industry, occupation, and sex	All occupations			STEM occupation			Non-STEM occupation		
	All education levels	Bachelor's degree or higher	Less than a bachelor's degree	All education levels	Bachelor's degree or higher	Less than a bachelor's degree	All education levels	Bachelor's degree or higher	Less than a bachelor's degree
Community and social service	998,000	762,000	236,000	D	D	D	998,000	762,000	236,000
Legal	820,000	751,000	D	D	D	D	820,000	751,000	D
Education, training, and library	2,262,000	1,805,000	458,000	D	D	D	2,262,000	1,805,000	458,000
Arts, design, entertainment, sports, and media	1,787,000	1,106,000	681,000	383,000	234,000	D	1,405,000	872,000	533,000
Health diagnosing and treating practitioner and other technical[a]	1,624,000	1,443,000	181,000	1,624,000	1,443,000	181,000	D	D	D
Health technologist and technician[a]	597,000	324,000	273,000	597,000	324,000	273,000	D	D	D
Healthcare support	961,000	216,000	745,000	D	D	D	961,000	216,000	745,000
Protective service	2,133,000	536,000	1,596,000	136,000	D	116,000	1,996,000	516,000	1,480,000
Food preparation and serving related	3,453,000	315,000	3,139,000	186,000	D	165,000	3,267,000	294,000	2,974,000
Building and grounds cleaning and maintenance	3,175,000	319,000	2,856,000	D	D	D	3,175,000	319,000	2,856,000
Personal care and service	1,237,000	391,000	845,000	D	D	D	1,237,000	391,000	845,000
Sales and related	6,532,000	1,927,000	4,605,000	D	D	D	6,487,000	1,910,000	4,576,000
Office and administrative support	5,110,000	1,260,000	3,850,000	D	D	D	5,110,000	1,260,000	3,850,000
Farming, fishing, and forestry	479,000	D	443,000	D	D	D	479,000	D	443,000
Construction	5,985,000	552,000	5,432,000	3,374,000	302,000	3,072,000	2,610,000	250,000	2,360,000
Extraction	77,000	D	77,000	D	D	D	S	D	S
Installation, maintenance, and repair	4,067,000	341,000	3,726,000	3,778,000	281,000	3,497,000	289,000	D	228,000
Production	6,403,000	594,000	5,809,000	2,542,000	420,000	2,122,000	3,861,000	174,000	3,687,000
Transportation and material moving	9,616,000	1,111,000	8,505,000	98,000	D	D	9,517,000	1,080,000	8,438,000

D = suppressed to avoid disclosure of confidential information. S = suppressed for reliability; coefficient of variation exceeds publication standards of 50%.

STEM = science, technology, engineering, and mathematics.

[a] "Healthcare practitioner and technical occupations" was broken into "Health diagnosing and treating practitioner and other technical" and "Health technologist and technician" to differentiate between doctors and technologists.

Note(s):
The National Training, Education, and Workforce Survey Pilot data tables are designated as an experimental statistical product. These estimates are experimental statistics and may not meet all the quality standards of the National Center for Science and Engineering Statistics. Users should take caution when using the estimates presented in these tables. Additional information about the experimental statistical product designation can be found in the "Technical Notes" accompanying these tables.

Numbers are rounded to the nearest 1,000. Detail may not add to total because of rounding. The survey uses the 2017 Industry Code and 2018 Occupation Code lists from the Census Bureau.

Source(s):
National Center for Science and Engineering Statistics, National Training, Education, and Workforce Survey Pilot, 2022.

TABLE 8

Median 12-month earnings for U.S. STEM and non-STEM full-time workers, by education level, employment sector, and occupation: 2022

(Number and dollars)

STEM status, education level, employment sector, and occupation	Total (number)	Median (dollars)
Total U.S. population ages 16–75 working full time with earnings	102,955,000	57,000
STEM workers	27,641,000	72,000
Education level		
Less than a bachelor's degree	13,757,000	56,000
Bachelor's degree or higher	13,883,000	96,000
Employment sector		
Private for-profit employer	17,846,000	73,000
Private nonprofit employer	3,053,000	74,000
Local, state, or federal government	3,600,000	75,000
Self-employed	2,723,000	67,000
Occupation		
Management	2,224,000	98,000
Business	220,000	39,000
Financial operations	135,000	82,000
Computer and mathematical	5,547,000	96,000
Architecture and engineering	2,871,000	90,000
Life, physical, and social science	1,408,000	72,000
Community and social service	na	na
Legal	na	na
Education, training, and library	na	na
Arts, design, entertainment, sports, and media	402,000	55,000
Health diagnosing and treating practitioner and other technical[a]	4,304,000	89,000
Health technologist and technician[a]	2,104,000	51,000
Healthcare support	na	na
Protective service	159,000	77,000
Food preparation and serving related	207,000	37,000
Building and grounds cleaning and maintenance	na	na
Personal care and service	na	na
Sales and related	D	D
Office and administrative support	na	na
Farming, fishing, and forestry	na	na
Construction	2,480,000	55,000
Extraction	D	D
Installation, maintenance, and repair	3,135,000	55,000
Production	2,347,000	50,000
Transportation and material moving	D	D
Non-STEM workers	75,314,000	50,000
Education level		
Less than a bachelor's degree	46,196,000	42,000
Bachelor's degree or higher	29,118,000	75,000
Employment sector		
Private for-profit employer	44,838,000	50,000
Private nonprofit employer	6,026,000	48,000
Local, state, or federal government	13,656,000	55,000
Self-employed	9,117,000	50,000
Occupation		
Management	12,343,000	90,000
Business	4,187,000	72,000
Financial operations	2,242,000	80,000
Computer and mathematical	na	na

TABLE 8

Median 12-month earnings for U.S. STEM and non-STEM full-time workers, by education level, employment sector, and occupation: 2022

(Number and dollars)

STEM status, education level, employment sector, and occupation	Total (number)	Median (dollars)
Architecture and engineering	na	na
Life, physical, and social science	na	na
Community and social service	2,338,000	50,000
Legal	1,406,000	99,000
Education, training, and library	4,959,000	54,000
Arts, design, entertainment, sports, and media	1,799,000	63,000
Health diagnosing and treating practitioner and other technical[a]	na	na
Health technologist and technician[a]	na	na
Healthcare support	3,411,000	35,000
Protective service	1,925,000	53,000
Food preparation and serving related	2,731,000	30,000
Building and grounds cleaning and maintenance	2,977,000	36,000
Personal care and service	1,483,000	40,000
Sales and related	7,420,000	59,000
Office and administrative support	11,920,000	43,000
Farming, fishing, and forestry	486,000	30,000
Construction	1,854,000	39,000
Extraction	D	D
Installation, maintenance, and repair	139,000	48,000
Production	4,038,000	42,000
Transportation and material moving	7,101,000	46,000

D = suppressed to avoid disclosure of confidential information. na = not applicable.

STEM = science, technology, engineering, and mathematics.

[a] "Healthcare practitioner and technical occupations" was broken into "Health diagnosing and treating practitioner and other technical" and "Health technologist and technician" to differentiate between doctors and technologists.

Note(s):
The National Training, Education, and Workforce Survey Pilot data tables are designated as an experimental statistical product. These estimates are experimental statistics and may not meet all the quality standards of the National Center for Science and Engineering Statistics. Users should take caution when using the estimates presented in these tables. Additional information about the experimental statistical product designation can be found in the "Technical Notes" accompanying these tables.

Numbers are rounded to the nearest 1,000. Detail may not add to total because of rounding. Earnings are from wages, salary, commissions, bonuses, or tips from the main job during the past 12 months when the individual responded to the survey. This amount is before deductions for taxes, bonds, dues, or other items. The survey uses the 2018 Occupation Code list from the Census Bureau.

Source(s):
National Center for Science and Engineering Statistics, National Training, Education, and Workforce Survey Pilot, 2022.

TABLE 9

Median 12-month earnings for U.S. STEM and non-STEM full-time workers, by sex, education level, employment sector, and occupation: 2022

(Number and dollars)

STEM status, sex, educational level, employment sector, and occupation	Total (number)	Median (dollars)
Total U.S. population ages 16–75 working full time with earnings	102,955,000	57,000
Female STEM workers	8,979,000	70,000
Education level		
Less than a bachelor's degree	3,792,000	53,000
Bachelor's degree or higher	5,188,000	87,000
Employment sector		
Private for-profit employer	5,160,000	70,000
Private nonprofit employer	1,993,000	69,000
Local, state, or federal government	1,098,000	79,000
Self-employed	550,000	66,000
Occupation		
Management	699,000	100,000
Business	D	D
Financial operations	85,000	D
Computer and mathematical	1,474,000	83,000
Architecture and engineering	512,000	50,000
Life, physical, and social science	708,000	63,000
Community and social service	na	na
Legal	na	na
Education, training, and library	na	na
Arts, design, entertainment, sports, and media	S	S
Health diagnosing and treating practitioner and other technical[a]	3,045,000	80,000
Health technologist and technician[a]	1,621,000	50,000
Healthcare support	na	na
Protective service	D	D
Food preparation and serving related	D	D
Building and grounds cleaning and maintenance	na	na
Personal care and service	na	na
Sales and related	D	D
Office and administrative support	na	na
Farming, fishing, and forestry	na	na
Construction	D	D
Extraction	D	D
Installation, maintenance, and repair	157,000	D
Production	358,000	53,000
Transportation and material moving	na	na
Male STEM workers	18,661,000	74,000
Education level		
Less than a bachelor's degree	9,966,000	58,000
Bachelor's degree or higher	8,696,000	100,000
Employment sector		
Private for-profit employer	12,686,000	74,000
Private nonprofit employer	1,060,000	93,000
Local, state, or federal government	2,502,000	70,000
Self-employed	2,173,000	67,000
Occupation		
Management	1,525,000	96,000
Business	163,000	45,000
Financial operations	50,000	D
Computer and mathematical	4,073,000	99,000

TABLE 9

Median 12-month earnings for U.S. STEM and non-STEM full-time workers, by sex, education level, employment sector, and occupation: 2022

(Number and dollars)

STEM status, sex, educational level, employment sector, and occupation	Total (number)	Median (dollars)
Architecture and engineering	2,359,000	93,000
Life, physical, and social science	700,000	85,000
Community and social service	na	na
Legal	na	na
Education, training, and library	na	na
Arts, design, entertainment, sports, and media	268,000	60,000
Health diagnosing and treating practitioner and other technical[a]	1,259,000	119,000
Health technologist and technician[a]	483,000	62,000
Healthcare support	na	na
Protective service	136,000	77,000
Food preparation and serving related	136,000	45,000
Building and grounds cleaning and maintenance	na	na
Personal care and service	na	na
Sales and related	D	D
Office and administrative support	na	na
Farming, fishing, and forestry	na	na
Construction	2,443,000	55,000
Extraction	D	D
Installation, maintenance, and repair	2,978,000	55,000
Production	1,989,000	50,000
Transportation and material moving	D	D
Female non-STEM workers	35,265,000	48,000
Education level		
Less than a bachelor's degree	20,396,000	39,000
Bachelor's degree or higher	14,869,000	68,000
Employment sector		
Private for-profit employer	19,216,000	48,000
Private nonprofit employer	4,096,000	47,000
Local, state, or federal government	7,879,000	53,000
Self-employed	3,294,000	45,000
Occupation		
Management	5,020,000	76,000
Business	2,480,000	69,000
Financial operations	1,343,000	71,000
Computer and mathematical	na	na
Architecture and engineering	na	na
Life, physical, and social science	na	na
Community and social service	1,627,000	50,000
Legal	774,000	85,000
Education, training, and library	3,575,000	51,000
Arts, design, entertainment, sports, and media	940,000	59,000
Health diagnosing and treating practitioner and other technical[a]	na	na
Health technologist and technician[a]	na	na
Healthcare support	2,896,000	35,000
Protective service	379,000	28,000
Food preparation and serving related	1,175,000	30,000
Building and grounds cleaning and maintenance	885,000	32,000
Personal care and service	987,000	40,000
Sales and related	2,877,000	50,000
Office and administrative support	8,136,000	42,000

TABLE 9

Median 12-month earnings for U.S. STEM and non-STEM full-time workers, by sex, education level, employment sector, and occupation: 2022

(Number and dollars)

STEM status, sex, educational level, employment sector, and occupation	Total (number)	Median (dollars)
Farming, fishing, and forestry	132,000	D
Construction	D	D
Extraction	D	D
Installation, maintenance, and repair	na	na
Production	1,007,000	36,000
Transportation and material moving	929,000	39,000
Male non-STEM workers	40,049,000	55,000
Education level		
Less than a bachelor's degree	25,800,000	45,000
Bachelor's degree or higher	14,249,000	85,000
Employment sector		
Private for-profit employer	25,622,000	53,000
Private nonprofit employer	1,931,000	57,000
Local, state, or federal government	5,777,000	61,000
Self-employed	5,823,000	56,000
Occupation		
Management	7,323,000	95,000
Business	1,707,000	80,000
Financial operations	899,000	85,000
Computer and mathematical	na	na
Architecture and engineering	na	na
Life, physical, and social science	na	na
Community and social service	711,000	49,000
Legal	632,000	134,000
Education, training, and library	1,384,000	61,000
Arts, design, entertainment, sports, and media	859,000	72,000
Health diagnosing and treating practitioner and other technical[a]	na	na
Health technologist and technician[a]	na	na
Healthcare support	515,000	34,000
Protective service	1,546,000	58,000
Food preparation and serving related	1,556,000	30,000
Building and grounds cleaning and maintenance	2,092,000	38,000
Personal care and service	496,000	40,000
Sales and related	4,544,000	67,000
Office and administrative support	3,784,000	45,000
Farming, fishing, and forestry	354,000	30,000
Construction	1,809,000	40,000
Extraction	D	D
Installation, maintenance, and repair	139,000	48,000
Production	3,031,000	46,000
Transportation and material moving	6,171,000	48,000

D = suppressed to avoid disclosure of confidential information. na = not applicable. S = suppressed for reliability; coefficient of variation exceeds publication standards of 50%.

STEM = science, technology, engineering, and mathematics.

[a] "Healthcare practitioners and technical occupations" was broken into "Health diagnosing and treating practitioner and other technical" and "Health technologist and technician" to differentiate between doctors and technologists.

Note(s):
The National Training, Education, and Workforce Survey Pilot data tables are designated as an experimental statistical product. These estimates are experimental statistics and may not meet all the quality standards of the National Center for Science and Engineering Statistics. Users should take caution when using the estimates presented in these tables. Additional information about the experimental statistical product designation can be found in the "Technical Notes" accompanying these tables.

Numbers are rounded to the nearest 1,000. Detail may not add to total because of rounding. Earnings are from wages, salary, commissions, bonuses, or tips from the main job during the past 12 months when the individual responded to the survey. This amount is before deductions for taxes, bonds, dues, or other items. The survey uses the 2018 Occupation Code list from the Census Bureau.

Source(s):
National Center for Science and Engineering Statistics, National Training, Education, and Workforce Survey Pilot, 2022.

Technical Notes

Survey Overview (FY 2022 Survey Cycle)

Purpose. The National Training, Education, and Workforce Survey (NTEWS) Pilot provides data on the educational and training characteristics of the nation's workforce, with a focus on those in the **skilled technical workforce**. The NTEWS Pilot is a comprehensive source of information regarding the education and work credentials held by the adult U.S. population.

The estimates included in the NTEWS Pilot data tables are not official statistics and should not be used to make official statements or inferences about characteristics of the population or economy.

The NTEWS is in a pilot phase. Survey methods including data collection and post-collection processing are being evaluated, and comprehensive quality measures are not available. The 2022 NTEWS Pilot data tables are designated as an experimental statistical product. National Center for Science and Engineering Statistics (NCSES) experimental statistical products are created to benefit users in the absence of other relevant information and are developed using innovative and exploratory methodologies. The NTEWS Pilot data tables are published to engage data users and other stakeholders in the survey's development to improve quality for future iterations of the survey. Experimental statistical products may not meet some of NCSES's quality standards and, as a result, users should assess the utility limitations of these experimental statistics relative to the intended use. More information about the NCSES quality standards is available on the **NCSES quality and transparency** website.

The NTEWS Pilot focuses on two areas of national interest. First, the NTEWS Pilot provides a unique set of data on the characteristics of the nation's adult population, particularly the skilled technical workforce—individuals in science, technology, engineering, and mathematics (STEM) occupations that require a high level of knowledge in a technical domain but do not require a bachelor's degree for entry. Second, the survey also gathers data on adults' non-degree credentials (certifications, licenses, postsecondary certificates, and work experience programs [WEPs]) and employment characteristics, to understand the prevalence of work-related credentials and the relationship between work-related credentials and employment outcomes.

The National Survey of College Graduates (NSCG) complements these data with information on individuals residing in the United States with at least a bachelor's degree, including those who received degrees only from foreign institutions.

The Survey of Doctorate Recipients (SDR) further complements these data with information on the population of U.S.-degreed doctoral-level scientists and engineers.

The NTEWS Pilot, NSCG, and SDR are sources of detailed information that support a broad range of policy and research topics on the dynamics of the educated and trained workforce over time. Historically, NCSES has conducted the NSCG and SDR surveys every two to three years and provides both cross-sectional and longitudinal data on the education and employment of the college-educated U.S. science and engineering (S&E) workforce. This NTEWS Pilot data collection effort was the first cycle for providing data for the skilled technical workforce population.

Data collection authority. The information collected in the NTEWS Pilot is solicited under the authority of the National Science Foundation Act of 1950, as amended; the America COMPETES Reauthorization Act of 2010; and the Education Sciences Reform Act of 2002. The Census Bureau collects the NTEWS Pilot data under the authority of Title 13, Section 8 of the United States Code. The Office of Management and Budget (OMB) control number is 3145-0264. The disclosure review number is NCSES-DRN24-050T.

Survey contractor. The Census Bureau, under NSF interagency agreement, collected, processed, and tabulated the statistics in this report.

Survey sponsor. National Center for Science and Engineering Statistics (NCSES) within the U.S. National Science Foundation (NSF) and the National Center for Education Statistics (NCES) within the Department of Education.

Key Survey Information

Frequency. Periodic, to be determined.

Initial survey year. 2022.

Reference period. April 2022 to October 2022.

Response unit. Individuals ages 16 through 75 who are not enrolled in high school.

Sample or census. Sample.

Population size. Approximately 249.8 million individuals.

Sample size. Approximately 43,000 individuals.

Survey Design

Target population. The NTEWS Pilot target population includes individuals who meet the following criteria:

- Reside in the United States or Puerto Rico according to the 2018 American Community Survey (ACS) interview
- Not institutionalized according to the 2018 ACS interview
- Between the ages of 16 and 75 (inclusive) as of 1 March 2022
- Not enrolled in high school at the time of their NTEWS Pilot interview

Sampling frame. The Census Bureau's 2018 ACS was used to create the sampling frame. The ACS samples about 3 million households on a yearly basis to ask about jobs and occupations, educational attainment, veteran status, whether people own or rent their homes, demographics, and other topics. The NTEWS Pilot frame included all individuals from the ACS who met the following eligibility requirements:

- Resided in the United States, including the District of Columbia and Puerto Rico, as of the ACS interview date
- Not institutionalized as of the ACS interview date
- Ages 16 through 76 as of 1 March 2022
- Did not have blank or generic name information, and did not have incomplete address information (i.e., address not fully blank or not missing state plus at least one of the following: street/address line, city, or zip code) on the ACS data file

To be eligible for the NTEWS Pilot, a sample person must meet all the above criteria plus not be enrolled in a primary or secondary school (K-12). This eligibility criterion was added to the NTEWS Pilot questionnaire because this information could not be determined from the sampling frame data at the time of sample selection.

Sample design. The NTEWS Pilot is a cross-sectional study with a stratified sampling design. As a cross-sectional study, the NTEWS Pilot provides estimates of the size and characteristics of adults in the workforce for a specific calendar year. As part of the rotating panel design, every new panel receives a baseline survey interview and three follow-up interviews before rotating out of the survey.

The sample design uses a multiphase, stratified sample. The first step draws eligible respondents from the ACS sample. Then, the NTEWS Pilot sample persons are selected from the eligible ACS respondents using systematic probability proportional to size (PPS) sampling. The measure of size was defined as a person's Name-and-Address adjusted weight, which is the final ACS simplified person-level weight adjusted for recent immigration undercoverage and removal of cases with incorrect contact information (e.g., bad names or incomplete addresses) from the preliminary sampling frame. Thus, a person with a higher Name-and-Address adjusted weight will have a higher probability of being selected into the sample. The formation of the sampling strata is based on the multiway cross of four stratification variables into 24 strata:

- Educational attainment (3 levels)
- Sex (2 levels)
- Underrepresented minority status (2 levels)
- STEM workforce status (2 levels)

The NTEWS Pilot also oversampled adults who did not have a bachelor's degree and adults in the skilled technical workforce to improve the precision of estimates. Approximately 43,000 individuals were sampled from the 2018 ACS for the 2022 NTEWS Pilot.

Data Collection and Processing Methods

Data collection. The data collection period for the 2022 NTEWS Pilot was 26 weeks (21 April 2022 to 24 October 2022), or approximately six months. The NTEWS Pilot used a trimodal data collection approach: a self-administered online survey (Web), a self-administered paper questionnaire (via mail), and a computer-assisted telephone interview (CATI). The survey was offered in English and Spanish. Several methods were used to contact sample persons to request they complete the survey. Sample persons were contacted through the following methods:

- By mail, with multiple invites and reminders sent to complete the survey online and some mailings including the paper questionnaire
- Through the CATI operation, which was also used for the nonresponse follow up (NRFU) stage
- By calling twice using an automatic dialer phone tree, with a reminder message to complete the survey

Throughout the collection, Census staff searched for new addresses and phone numbers for sample persons who received multiple undeliverable mailings or had unproductive phone numbers.

Quality assurance procedures were in place to monitor key data collection activities to ensure operations progressed in a timely manner and were performed according to plan. These activities included printing, mail package assembly, mailout, questionnaire check-in, data keying, coding, telephone questionnaire assistance (TQA), scanning questionnaires into the document database, coding, and post-data collection processing.

Mode. About 57% of respondents completed the survey by Web, 33% by mail, 8% by CATI, and 2% by TQA. Of those who completed by Web, 65% were on a computer, 32% were on a smartphone, and 3% were on a tablet.

Each of the three modes of data collection (Web, mail, or CATI) was also translated into Spanish for sample persons to use while responding. About 15% of all CATI responses were conducted in Spanish, 7% of all mail responses used the Spanish questionnaire, and 3% of all web responses used at least one Spanish question screen.

Response rates. Response rates were calculated on complete responses from instruments. To be considered a complete response, the following critical items must have been answered.

- Working for pay or profit

- Looking for work
- The name of the main job or the description of the main job
- Educational attainment
- Current high school enrollment
- Birthdate (to determine age)
- Living in the U.S.

The unweighted and weighted response rates adjusted for estimated ineligible individuals for 2022 NTEWS Pilot were 39% and 44%, respectively. Of the roughly 43,000 sample persons, approximately 15,500 completed the survey.

Data editing. Response data had initial editing rules applied relative to the specific mode of capture to check internal consistency and valid range of response. The Web survey captured most survey responses and had internal editing controls where appropriate. The Integrated Computer Assisted Data Entry (iCADE) system processed the mailed paper surveys. Responses from the three modes were merged for subsequent coding, editing, and cleaning necessary to create an analytical database.

Coding for the NTEWS Pilot survey data took open-text, verbatim answers and converted them to a standardized code. Separate coding operations corresponding to survey questions were used: field of study (i.e., NCES Classification of Instructional Programs), credential (certifications and licenses), other-specify (e.g., other reason why a respondent earned a degree or certificate, how often a respondent with a credential needs to renew it, and name of the organization or agency that issued the credential), work experience program, industry, and occupation. Each operation focused on a specific set of variables to be coded from the survey questions.

Imputation. Missing items except for critical items were imputed. Imputation is performed for several reasons. Many data users prefer data files without missing data, especially those unfamiliar with techniques used to analyze missing data. In addition, some statistical packages cannot process an observation with missing variable responses. Eliminating missing data can also reduce nonresponse bias. However, imputation can affect the variance estimates and possibly introduce other bias. For this reason, users have the option not to use imputed data because imputed values are flagged in the data file. Users can request the imputation-flag file from the Survey Manager.

The NTEWS Pilot used a combination of logical and statistical imputation. During the editing process, logical imputation was used to determine the answer to one question with missing data based on the answer to another related question when feasible. In some circumstances, edit checks found inconsistent data, which were removed and then subjected to statistical imputation through the hot deck imputation procedure, which involves splitting individuals into similar cells using class variables. The class variables may include employment status or education level, etc. Within a particular class, all observations are sorted using a list of sort variables, such as number of hours worked per week or age group. Then, an observation with a missing value is given the same response as the nearby observation not missing a value, called the donor, in the order of sort. The purpose is to find a donor who is most like the respondent and most likely to respond the same. The donor is sometimes referred to as the nearest neighbor.

Class and sort variables were selected so that donors and recipients would be as alike as possible in relation to the variable being imputed. Class variables were chosen primarily from filter variables for the questionnaire skip patterns. Sort variables were selected using stepwise-variable regression models to determine significant predictors for the item to be imputed. Potential class and sort variables came from responses to the 2018 ACS or from the NTEWS Pilot items that were already imputed or never missing, along with paradata and recodes of ACS and NTEWS Pilot variables. Sort variables were primarily listed in the order of their significance in the regression model. However, some variables were demoted down the sort order, which prevents these variables from dominating the sort in the list and helps to maintain consistency.

The item nonresponse rates reflect data missing after logical imputation or editing but before statistical imputation. These rates provide information on the percentage of data that was statistically imputed for each questionnaire item. For key variables—such as employment status, current employment educational background, licenses and certifications, and certificates—the weighted item nonresponse rates ranged from 2.5% to 10.2%. Nonresponse to questions deemed sensitive was higher: nonresponse for the type of visa of non-U.S. citizens was 20.6% and for earnings was 10.9%. Nonresponse was also higher for information that may be difficult to recall, such as the last month and year worked for those who were not employed, which was 17.3 % and 12.1%, respectively. Imputation rates frequently varied by educational attainment—generally, variables demonstrated higher imputation rates for lower education levels (i.e., individuals with a high school diploma or less).

Imputation was not performed on critical items or verbatim-based variables. For some missing demographic information, the NTEWS Pilot imported the corresponding data from the ACS, which had performed its imputation.

Weighting. Sampling weights were created for each respondent to support population estimates because the NTEWS Pilot is based on a complex sampling design and is subject to nonresponse. The final analysis weights account for several factors, including the following:

- Adjustments to account for undercoverage for recent immigrants
- Adjustment for incorrect names or incomplete address information on the sampling frame
- Unequal sample selection probabilities to produce base weights
- Post-stratification adjustment to control back to the frame totals within cells defined by cross of sampling cell (Hispanic origin, non-Hispanic White/Other race flag, disability status, age group, and occupation group) with small cells collapsed
- Adjustment to account for the removal of duplicate cases
- Adjustment to account for non-locatability and unit nonresponse during data collection
- Trimming for extreme weights
- Raking adjustments to reallocate the trimmed weights back to the pre-trim totals
- Post-stratification adjustments that ratio adjusts the weights to ensure consistency with the population control totals for key demographic characteristics

The final analysis weights enable data users to derive survey-based estimates of the NTEWS Pilot target population. The variable name on the NTEWS Pilot public use data file for the NTEWS Pilot final analysis weight is FSNTW2201.

Variance estimation. The successive difference replication method (SDRM) was used for variance estimation. The theoretical basis for the SDRM is described in Wolter (1984) and in Fay and Train (1995). As with any replication method, successive difference replication involves constructing numerous subsamples (replicates) from the full sample and computing the statistic of interest for each replicate. The NTEWS Pilot used 80 replicates; each replicate underwent the same weighting adjustment as the full sample.

Disclosure protection. The estimates presented in the NTEWS Pilot data tables are rounded to the nearest 1,000 to protect against disclosure of confidential information provided by NTEWS Pilot respondents.

Data table cell values based on counts of respondents that fall below a predetermined threshold are deemed sensitive to potential disclosure, and the letter “D” indicates this type of suppression in a table cell.

Survey Quality Measures

Sampling error. NTEWS Pilot estimates are subject to sampling errors. Estimates of sampling errors associated with this survey are calculated using replicate weights. Data table estimates with coefficients of variation (i.e., the estimate divided by the standard error) that exceed 50% are deemed unreliable and are suppressed. The letter "S" indicates this type of suppression in a table cell.

Coverage error. Coverage error occurs in sample estimates when the sampling frame does not accurately represent the target population of interest. Because the 2022 NTEWS Pilot used the 2018 ACS as the originating sampling frame, differences in the population from 2018 to 2022 result in some coverage error, and any potential undercoverage present in the ACS transferred to the 2022 NTEWS Pilot design. Additional undercoverage errors may exist because of self-reporting errors in the NTEWS Pilot sampling frame that led to incorrect determination of survey eligibility of individuals.

Nonresponse error. The weighted response rate for the 2022 NTEWS Pilot was 44%, and the unweighted response rate was 39%. A preliminary nonresponse bias analysis study for the 2022 NTEWS Pilot concluded the potential for bias was minimal among certain large domains, but there is the potential for greater nonresponse bias across other domains with less robust response. Analysis of NTEWS Pilot nonresponse trends was used to develop nonresponse weighting adjustments to minimize the potential for nonresponse bias in the NTEWS Pilot estimates. A hot deck imputation method was used to adjust for item nonresponse.

Measurement error. The NTEWS Pilot is subject to reporting errors from differences in the interpretation of questions and by mobility (Web, mail, or CATI). To reduce measurement errors, the NTEWS Pilot questionnaire items were pretested in two independently conducted cognitive research in 2018 and 2021.

Data Comparability

The administration of the 2022 NTEWS Pilot is the first cycle of the survey. The NTEWS Pilot targets the same population as the Adult Training and Education Survey (ATES) conducted by NCES (i.e., adults in the United States who are not in enrolled in high school). The NTEWS Pilot has overlapping populations with the NSCG because both survey collections use the ACS as their sampling frame. Also, many NTEWS Pilot questions use similar survey questions that were used on the ATES or NSCG.

There are two data files available to users. The NTEWS Pilot public use file (PUF), which removed all personally identifiable information (PII), is available as a downloadable file through the NCSES data page (**https://ncses.nsf.gov/explore-data**). The NTEWS Pilot restricted-use file (RUF) is available through the Census Bureau's Federal Statistical Research Data Centers (**https://www.census.gov/fsrdc**).

Changes in survey coverage and population. Not applicable.

Changes in questionnaire. Not applicable.

Changes in reporting procedures or classification. Not applicable.

Definitions

Disability. The NTEWS Pilot asks the degree of difficulty—none, slight, moderate, severe, or unable to do—an individual has in seeing (with glasses), hearing (with a hearing aid), walking without assistance, lifting 10 pounds, or concentrating, remembering, or making decisions. Those respondents who answered "moderate," "severe," or "unable to do" for an activity were classified as having a disability.

Earnings. Wages, salary, commissions, bonuses, or tips from the individual's main job during the previous 12 months. This amount is before deductions for taxes, bonds, dues, or other items.

Race and ethnicity. Ethnicity is defined as Hispanic or Latino or not Hispanic or Latino. Hispanic or Latino may be any race; race categories exclude Hispanic origin. Values for those selecting a single race are American Indian or Alaska Native, Asian, Black or African American, Native Hawaiian or Other Pacific Islander, and White. Respondents who indicate they are not Hispanic or Latino and select two or more races are reported as "More than one race."

Skilled technical workforce. The skilled technical workforce comprises workers in STEM occupations (S&E, S&E-related, and middle-skills occupations) who do not have an educational attainment of a bachelor's degree or higher. See the NCSES skilled technical workforce website for more information (**https://ncses.nsf.gov/initiatives/projects-partnerships/skilled-technical-workforce**).

Underrepresented minority. Demographic groups that are underrepresented in science and engineering, relative to their numbers in the U.S. population: American Indian or Alaska Native, Black or African American, and Hispanic or Latino. For detailed data on racial and ethnic representation, see the 2023 NCSES report ***Diversity and STEM: Women, Minorities, and Persons with Disabilities 2023***.

References

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Contact Us

Report Author

Gigi Jones
Survey Manager
NCSES
Tel: (703) 292-8071
E-mail:gijones@nsf.gov

NCSES

National Center for Science and Engineering Statistics
Directorate for Social, Behavioral and Economic Sciences
U.S. National Science Foundation
2415 Eisenhower Avenue, Suite W14200
Alexandria, VA 22314
Tel: (703) 292-8780
FIRS: (800) 877-8339
TDD: (800) 281-8749
E-mail ncsesweb@nsf.gov