

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 |

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(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.