



National Center for Science and
Engineering Statistics

InfoBrief

The Increasing Role of Community Colleges among Bachelor's Degree Recipients: Findings from the 2019 National Survey of College Graduates

NSF 21-309 | January 2021

Daniel Foley, Lynn Milan, and Karen Hamrick

The number of college graduates in the United States reached approximately 65 million in 2019, with nearly 51 million of them employed and another 1.6 million seeking employment, according to the 2019 National Survey of College Graduates (NSCG). The NSCG—sponsored by the National Center for Science and Engineering Statistics (NCSES) within the National Science Foundation (NSF)—provides data on the characteristics of the nation's college graduates, with a focus on those in the science and engineering (S&E) workforce.

Among the 51 million college graduates in the workforce, 48.6 million reported earning a first bachelor's degree, 44.7 million of whom earned this degree in the United States. A large and increasing number of these U.S. college graduates reported having attended community college. For example, of the 14.8 million graduates who earned their first bachelor's degree between 2008 and 2017, more than half (52%) had previously attended a community college and 25% had earned an associate's degree. In contrast, among the 29.8 million college graduates who earned their first bachelor's degree before 2008, only 48% had attended a community college and only 19% had earned an associate's degree ([table 1](#)).

This InfoBrief focuses on NSCG data related to community college attendance by the nation's employed college graduates who earned their first bachelor's degree in the United States before calendar year 2018. Findings are presented in relation to selected sociodemographic characteristics, broad fields of study, and reasons for their attendance.

Sociodemographic Characteristics

In 2019, over half (53%) of the 44.7 million employed college graduates with a first bachelor's degree were women. These women were more likely than their male counterparts to attend community college (53% versus 45%) and to have an associate's degree (22% versus 20%) ([table 1](#)). The reporting of community college attendance increased over time among women, from 51% for those earning a degree before 2008 to 56% among those earning their degree after 2007. In contrast, community college attendance among men did not change significantly between recent graduates and past graduates.

Table 1**Community college attendance and receipt of an associate's degree among employed college graduates reporting a first bachelor's degree, by sex, ethnicity, race, disability status, professional certification, and calendar year of degree: 2019**

(Number and percent)

Characteristic	Employed college graduates			Recent graduates, earned first bachelor's degree 2008–17			Past graduates, earned first bachelor's degree 2007 or earlier		
	Total (number)	Attended community college (%)	Earned an associate's degree (%)	Total (number)	Attended community college (%)	Earned an associate's degree (%)	Total (number)	Attended community college (%)	Earned an associate's degree (%)
Total	44,687,000	49.2	21.0	14,848,000	52.3	24.8	29,840,000	47.6	19.1
Sex									
Female	23,719,000	52.7	22.1	8,457,000	56.3	25.9	15,262,000	50.7	20.0
Male	20,969,000	45.2	19.7	6,391,000	46.9	23.3	14,578,000	44.4	18.2
Ethnicity and race									
Hispanic or Latino ^a	3,952,000	57.1	26.1	1,888,000	59.0	31.4	2,064,000	55.3	21.3
Not Hispanic or Latino									
Asian	2,427,000	56.7	19.7	1,035,000	58.2	21.4	1,392,000	55.6	18.5
American Indian or Alaska Native	180,000	56.9	23.9	80,000	S	S	100,000	45.0	36.3
Black or African American	3,497,000	54.7	26.7	1,341,000	57.9	31.8	2,156,000	52.7	23.5
White	33,392,000	46.8	19.7	9,889,000	49.1	23.1	23,503,000	45.8	18.3
Native Hawaiian or Other Pacific Islander	115,000	73.9	21.1	44,000	80.4	S	71,000	69.8	13.9
More than one race	1,123,000	55.7	24.8	570,000	56.1	23.3	554,000	55.2	26.3
Disability status ^b									
Without disability	39,402,000	48.3	20.4	13,309,000	50.9	23.8	26,093,000	46.9	18.6
With disability	5,285,000	56.1	25.6	1,539,000	64.3	33.3	3,746,000	52.7	22.5
Professional certification or license									
No certification or license	25,706,000	47.4	20.5	9,391,000	50.5	23.0	16,315,000	45.6	19.1
At least one certification or license	18,981,000	51.6	21.6	5,457,000	55.3	27.8	13,525,000	50.2	19.0

S = suppressed for reliability; coefficient of variation exceeds publication standards.

^a Hispanic or Latino can be of any race.^b Survey asks 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 any activity were classified as having a disability.**Note(s):**Numbers are rounded to the nearest 1,000. Excludes college graduates who earned a first bachelor degree abroad ($n = 3,879,000$) and those who did not report a first bachelor's degree ($n = 1,958,000$).

Source(s):

National Center for Science and Engineering Statistics, National Survey of College Graduates, 2019.

Members of underrepresented minority groups were more likely than Whites to have attended community colleges (57% of Hispanics or Latinos and 55% of Blacks or African Americans versus 47% of Whites) and to have earned an associate's degree (approximately 26% of Hispanics or Latinos and Blacks or African Americans versus 20% of Whites). Similarly, Asians were more likely than Whites to have attended community colleges (57%) but were equally likely as Whites (20%) to have earned an associate's degree (table 1).

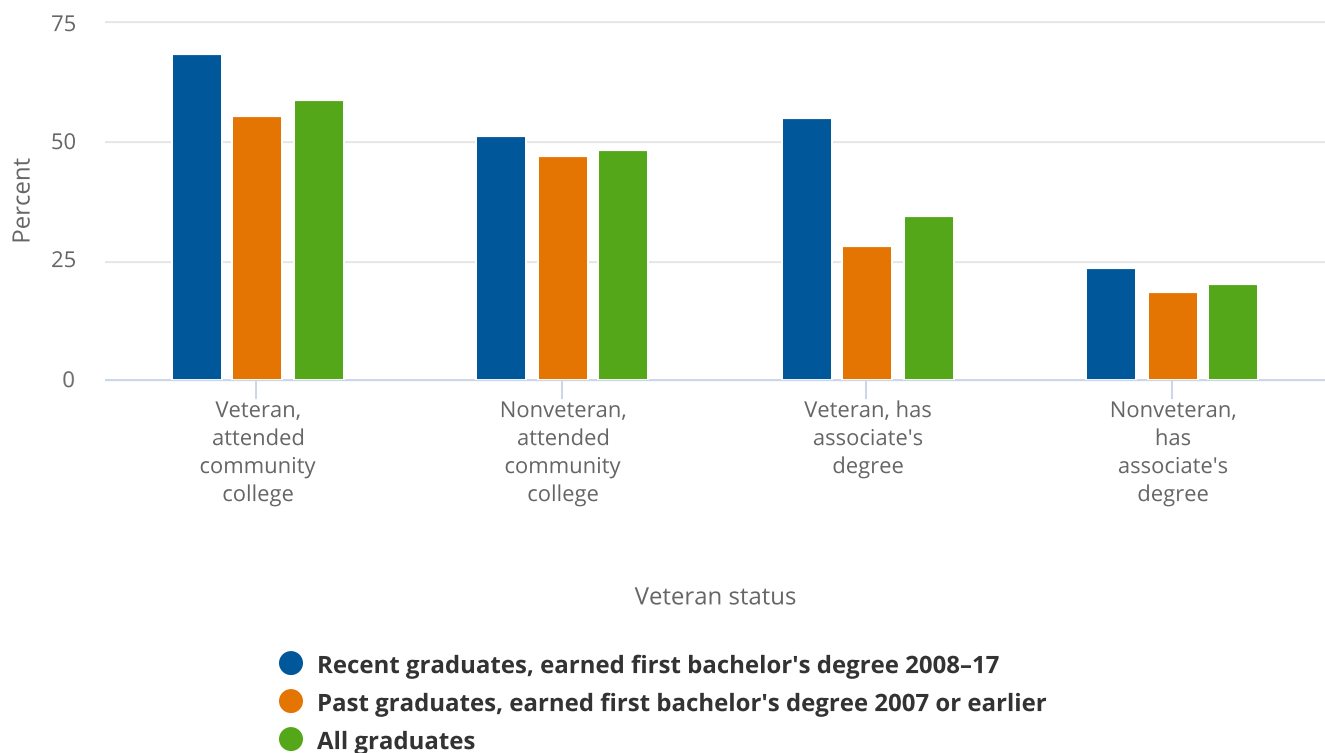
About 12% of these employed graduates had a disability. Graduates with a disability were more likely than those without a disability to have attended a community college (56% versus 48%) and to have earned an associate's degree (26% versus 20%). Among graduates with a disability, attending community college or earning an associate degree was even more common among recent graduates than among past graduates (table 1).

A large number of these employed college graduates (42%) held an active professional certification or state or industry license, such as registered nurses, information technology specialists, and licensed engineers, and they were more likely than those without such credentials to have used community college. Among recent graduates with certifications or licenses, about 55% had attended community colleges and 28% held an associate's degree, compared with 51% and 23%, respectively, among those without these credentials.

Overall, 2.7 million of these employed college graduates were veterans, and community colleges were an important part of their pathway toward receipt of a first bachelor's degree earned in the United States, especially among the recent degree holders. Among the 646,000 veterans who had earned their degree since 2008, 69% had attended a community college and 55% of them also reported having earned an associate's degree (figure 1).

Figure 1

Community college attendance and receipt of an associate's degree among employed college graduates, by veteran status and calendar year of degree: 2019



Note(s):

Excludes college graduates who earned a first bachelor's degree abroad ($n = 3,879,000$), those who did not report a first bachelor's degree but held a master's degree ($n = 1,958,000$), and those on active military duty ($n = 215,000$).

Source(s):

National Center for Science and Engineering Statistics, National Survey of College Graduates, 2019.

Broad Field of Major for First Bachelor's Degree

Approximately 17 million, or 38% of all employed college graduates, earned their first bachelor's degree in an S&E field. Of these 17 million persons with a first bachelor's degree, nearly half (43%) majored in the social and related sciences and less than 20% majored in most of the other broad S&E fields.

Overall, S&E majors were less likely to have attended community college and half as likely to earn an associate's degree (45% and 15%, respectively), compared with those majoring in S&E-related fields (56% and 29%, respectively), such as nursing and science and math teacher education, and those in non-S&E fields (51% and 24%, respectively), such as arts and humanities. Differences across these three broad fields of study also are present among the recent graduates. For example, recent graduates who majored in an S&E-related field had the highest use of community colleges, with 62% reporting having attended community college and about 36% reporting having an associate's degree. Recent graduates with a non-S&E degree had the second-highest attendance of community colleges, with over half of them (54%) having attended community college and 28% having an associate degree. For recent graduates with an S&E major, rates were lower, with 47% and 17%, respectively.

Among all S&E majors, use of community colleges was lower among those with degrees in engineering (43% attended community college and 13% earned an associate's degree) and in the physical and related sciences (40% and 10%, respectively) than it was for S&E graduates overall (45% and 15%, respectively) ([table 2](#)).

Table 2

Community college attendance and receipt of an associate's degree among employed college graduates reporting a first bachelor's degree, by field of study and calendar year of degree: 2019

(Number and percent)

Field of study	Employed college graduates			Recent graduates, earned first bachelor's degree 2008–17			Past graduates, earned first bachelor's degree's 2007 or earlier		
	Total (number)	Attended community college (%)	Earned an associate's degree (%)	Total (number)	Attended community college (%)	Earned an associate's degree (%)	Total (number)	Attended community college (%)	Earned an associate's degree (%)
All fields	44,687,000	49.2	21.0	14,848,000	52.3	24.8	29,840,000	47.6	19.1
S&E fields	16,862,000	45.0	15.1	5,651,000	47.0	16.9	11,211,000	43.9	14.2
Computer and mathematical sciences	2,336,000	46.7	20.7	810,000	44.2	22.7	1,526,000	48.1	19.6
Biological, agricultural and environmental life sciences	3,235,000	46.4	12.3	1,194,000	50.6	14.1	2,041,000	44.0	11.2
Physical and related sciences	993,000	39.6	10.1	303,000	41.1	11.3	689,000	38.9	9.5
Social and related sciences	7,196,000	45.4	16.2	2,407,000	49.1	19.2	4,789,000	43.6	14.6
Engineering	3,103,000	42.7	13.1	937,000	41.1	11.5	2,166,000	43.4	13.8
S&E-related fields	4,656,000	56.3	29.0	1,916,000	61.7	36.0	2,740,000	52.5	24.2
Non-S&E fields	23,170,000	50.8	23.6	7,280,000	53.9	27.9	15,889,000	49.4	21.7

S&E = science and engineering.

Note(s):

Numbers are rounded to the nearest 1,000. Excludes college graduates who earned a first bachelor's degree abroad ($n = 3,879,000$) and those who did not report a first bachelor's degree ($n = 1,958,000$).

Source(s):

National Center for Science and Engineering Statistics, National Survey of College Graduates, 2019.

Reasons for Community College Attendance

In general, reasons reported by college graduates who had attended a community college were similar between the recent and past graduates. For example, the most frequently cited reason for attending a community college was to earn credits for a bachelor's degree (76% of recent graduates and 64% of past graduates) (table 3). Other frequently cited reasons included financial reasons (56% and 42%, respectively) and to prepare for college or increase their chance of acceptance to a 4-year college or university (46% and 37%, respectively). In addition, 42% of recent graduates reported "to complete an associate's degree" as a reason for attending community college, although just one-fourth of all recent graduates reported having earned an associate's degree.

In summary, these data show that a large number of employed persons with a first bachelor's degree earned in the United States had attended community college and earned an associate's degree in the course of their educational attainment and career pursuits.

Table 3

Reasons for attending community college among employed college graduates reporting a first bachelor's degree and having attended community college, by broad field of major and calendar year of degree: 2019

(Percent)

Reasons	Employed college graduates	Computer and mathematical sciences	Biological and life sciences	Physical sciences	Social sciences	Engineering	S&E-related fields	Non-S&E fields
Recent graduates, received first bachelor's 2008–17								
Total attended community college (number)	7,761,000	358,000	604,000	125,000	1,182,000	385,000	1,183,000	3,924,000
Earn credits for a bachelor's degree	75.6	76.7	73.0	69.8	73.1	77.5	70.1	78.4
Financial reasons	56.1	57.4	50.3	40.6	55.6	46.8	60.0	57.2
Gain skill or knowledge in academic or occupational field	40.8	45.7	40.3	38.9	37.5	35.8	47.7	39.8
Prepare for college or increase chance of acceptance to 4-year college or university	46.3	48.2	44.4	37.8	47.2	45.7	45.1	46.9
Complete associate's degree	41.5	37.9	22.5	22.8	36.6	22.2	51.0	45.9
Leisure or personal interest	21.8	25.4	21.9	32.8	24.2	21.0	15.7	22.3
Facilitate change in academic or occupational field	23.9	25.0	28.2	14.1	25.5	15.5	27.6	22.6
Earn college credits while in high school	28.8	34.3	42.5	52.9	30.4	35.6	26.7	24.9
Increase opportunities for promotion, advancement, or higher salary	27.5	31.0	19.9	8.8	23.6	14.4	29.9	30.6
Past graduates, received first bachelor's before 2008								
Total attended community college (number)	14,217,000	733,000	897,000	268,000	2,088,000	939,000	1,438,000	7,852,000
Earn credits for a bachelor's degree	63.9	60.4	60.2	55.1	59.9	60.5	66.1	66.0
Financial reasons	42.3	42.0	31.4	34.0	37.3	34.5	42.9	46.1

Table 3**Reasons for attending community college among employed college graduates reporting a first bachelor's degree and having attended community college, by broad field of major and calendar year of degree: 2019**

(Percent)

Reasons	Employed college graduates	Computer and mathematical sciences	Biological and life sciences	Physical sciences	Social sciences	Engineering	S&E-related fields	Non-S&E fields
Gain skill or knowledge in academic or occupational field	42.4	45.6	39.2	46.6	42.3	42.6	46.8	41.6
Prepare for college or increase chance of acceptance to 4-year college or university	37.1	36.4	29.0	29.0	36.8	33.9	39.1	38.5
Complete associate's degree	32.1	35.0	19.9	19.2	28.9	22.2	34.4	35.2
Leisure or personal interest	27.8	32.3	28.9	35.9	30.4	29.9	26.1	26.3
Facilitate change in academic or occupational field	24.9	24.6	25.4	20.8	26.9	17.7	26.9	25.0
Earn college credits while in high school	17.7	18.5	25.6	21.9	19.2	20.2	17.1	16.0
Increase opportunities for promotion, advancement, or higher salary	25.7	27.5	17.8	22.8	26.4	23.4	28.4	26.1

S&E = science and engineering.

Note(s):

Numbers are rounded to the nearest 1,000. Sum of percentages in reasons for attending community college exceeds total because of multiple response.

Source(s):

National Center for Science and Engineering Statistics, National Survey of College Graduates, 2019.

Definitions and Classifications

This InfoBrief uses information from the 2019 NSCG on an individual's self-reported first bachelor's degree from a U.S. academic institution to examine community college attendance and receipt of an associate's degree. Veterans are individuals who have served on active duty in the U.S. Armed Forces (including the Army, Navy, Air Force, Marine Corp, and Coast Guard) and who were civilians at the time they completed the survey. Nonveterans are individuals who never served in the U.S. Armed Forces or whose active duty service included only training in the Reserves or National Guard. The NCSES classification of S&E degree fields include biological, agricultural, and environmental life sciences; computer and mathematical sciences; physical and related sciences; social and related sciences; and engineering. The NCSES classification of S&E-related degree fields include health fields, science and math teacher education, and technology and technical fields. All other degree fields are classified as non-S&E fields. (For more information on the degree field categories collected on the NSCG, see <http://ncesdata.nsf.gov/docs/ed03maj.html>.) Note that the NSCG does not collect information on those who attended community college but did not go on to receive a bachelor's degree.

Data Sources and Limitations

Data presented here are from the 2019 NSCG, a repeated cross-sectional survey that biennially collects a wide range of information on the employment, education, and demographic characteristics of the nation's college-educated population. Using a rotating panel sample design, the NSCG collects data from individuals during four survey cycles over a 6-year period.

The 2019 NSCG surveyed approximately 147,000 individuals representing the college-educated population residing in the United States during the week of 1 February 2019 with at least one degree earned (in the United States or abroad) before 1 January 2018. The resulting data contain approximately 92,500 completed responses. The NSCG provides information on all college graduates educated or employed in S&E fields, as well as those educated or employed in S&E-related and non-S&E fields. For further survey information, please visit the NSCG website (<https://www.nsf.gov/statistics/srvygrads>).

The estimates in this InfoBrief are based on responses from a sample of the population and may differ from actual values because of sampling variability or other factors. As a result, apparent differences between the estimates for two or more groups may not be statistically significant. All comparative statements in this InfoBrief have undergone statistical testing and are significant at the 90% confidence level unless otherwise noted. The variances of estimates in this report were calculated using the successive difference replication method.

Data presented in this InfoBrief are now available for custom tabulations through the Scientists and Engineers Statistical Data System (SESTAT) Data Tool at <https://sestat.nsf.gov/sestat/sestat.html>. The NSCG public use data files are available for download from <https://sestat.nsf.gov/datadownload>. Data from the NSCG are also included in NCSES reports, such as *Science and Engineering Indicators* and *Women, Minorities, and Persons with Disabilities in Science and Engineering*.

Suggested Citation

Foley D, Milan L, Hamrick K; National Center for Science and Engineering Statistics (NCSES). 2020. *The Increasing Role of Community Colleges among Bachelor's Degree Recipients: Findings from the 2019 National Survey of College Graduates*. NSF 21-309. Alexandria, VA: National Science Foundation. Available at <https://ncses.nsf.gov/pubs/nsf21309/>.

Contact Us

Report Authors

Daniel Foley

Survey Manager

Human Resources Statistics Program, NCSES

Tel: (703) 292-7811

E-mail: dfoley@nsf.gov

Lynn Milan

Survey Manager

Human Resources Statistics Program, NCSES

Tel: (703) 292-2275

E-mail: lmilan@nsf.gov

Karen Hamrick

Senior Analyst

Human Resources Statistics Program, NCSES

Tel: (703) 292-4784

E-mail: khamrick@nsf.gov

NCSES

National Center for Science and Engineering Statistics

Directorate for Social, Behavioral and Economic Sciences

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