Engineering & Engineering Technology BY THE NUMBERS



ASEE 2021 Edition

SASEE AMERICAN SOCIETY FOR ENGINEERING EDUCATION

Founded in 1893, the American Society for Engineering Education (ASEE) is a global society of individual, institutional, and corporate members. ASEE's vision is excellent and broadly accessible education empowering students and engineering professionals to create a better world. We work toward achieving that vision by advancing innovation, excellence, and access at all levels of education for the engineering profession. We engage with engineering faculty, business leaders, college and high school students, parents, and teachers to enhance the engineering workforce of the nation. We are the only professional society addressing opportunities and challenges spanning all engineering disciplines, working across the breadth of academic education including teaching, research, and public service.

- We support education at the institutional level by linking faculty and staff across disciplines to create enhanced student learning and discovery.
- We support education across institutions by identifying opportunities to share proven and promising practices.
- We support education locally, regionally, and nationally by forging and reinforcing connections between academia, business, industry, and government.
- We support discovery and scholarship among education researchers by providing opportunities to share and build upon findings.
- We support innovation by fostering the translation of research into improved practices.
- We support disciplinary technical researchers by disseminating best research management practices.

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Profiles of Engineering and Engineering Technology, 2021

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The following changes were made from the original published version:

- 1. Table 9 and 43 reporting 0 male engineering graduates have been corrected.
- 2. Louisiana Tech revised their degrees awarded submission. The tables reflect that revision.





Engineering & Engineering Technology in 2021¹

Introduction

The American Society for Engineering Education (ASEE) has collected data from engineering, computing, and engineering technology programs in its annual Profiles of Engineering and Engineering Technology (Profiles) since 2001. The data collected reflects detailed demographic headcounts for program enrollment, department tenured/tenure-track faculty, and degrees awarded.

A full report on the effects of COVID-19 on engineering education in the United States will be released in early 2023.

Technical Definitions and Method

Profiles of Engineering and Engineering Technology is produced annually in collaboration with institutions with at least one ABET-accredited program in engineering, engineering technology, or computer disciplines.

Race/ethnicity: ASEE collects enrollment, degrees awarded, and tenure-track faculty numbers by the U.S. Department of Education's Integrated Post-Secondary Education Data System (IPEDS) reporting categories for race/ethnicity.

Underrepresented minority: ASEE uses the definition from prior editions of NSF's *Science* and Engineering Indicators report (<u>https://ncses.nsf.gov/pubs/nsb20201/glossary</u>): "this category comprises three racial or ethnic minority groups (blacks or African Americans, Hispanics or Latinos, and American Indians or Alaska Natives) whose representation in S&E education or occupations is smaller than their representation in the U.S. population."

Reporting Periods (Profiles 2021):

Fall 2021: institution enrollments, engineering college enrollments, engineering technology college enrollments, faculty head counts, admission requirements and recommendations, and personnel information. Degrees awarded between July 1, 2020 and June 30, 2021. Research expenditures are based on the most recently completed fiscal year ending in 2021.

Research Expenditures: Institutions report all expenditures associated with grants and contracts specifically budgeted for externally sponsored research and associated programs and expenditures associated with all gifts auditably used for research.

¹ This work is part of an ongoing project on the effects of COVID-19 on engineering education funded by NSF-EEC Award #1748840. Any views expressed are those of the individual author and do not necessarily represent the views of the National Science Foundation.

Institutions are instructed to include expended funds provided by the following external sources:

- 1. Federal government
- 2. State government
- 3. Foreign government
- 4. Industry
- 5. Non-profit organizations (e.g., foundations)
- 6. Individuals
- 7. Local government

Gender: Institutions can report under IPEDS rules for gender or under an expanded set of options:

- Male/female (IPEDS)
- Male/female/non-binary gender/another gender or unknown (expanded gender)

If an institution chooses the binary gender option spreadsheet, it is reporting data to ASEE as it would be reported to the IPEDS survey. Gender for individuals (student or faculty) that is unknown would be reported in a category (male or female) selected by the institution. Under this option, institutions are instructed to include counts for **all individuals** in the required cells.

Full-time staff: As defined by the institution. The type of appointment at the snapshot determines whether an employee is full-time or part-time. The employee's term of contract is not considered in making the determination of full- or part-time.

Full-time student: Undergraduate: A student enrolled for 12 or more semester credits or 12 or more quarter credits or 24 or more clock hours a week each term

Graduate: A student enrolled for 9 or more semester credits or 9 or a student involved in thesis or dissertation preparation that is considered full-time by the institution.

Non-tenure track, teaching faculty: Persons identified by the institution as such as typically those whose initial assignments are made for the purpose of conducting instructions as a principle activity (or activities). They may hold academic rank titles of professor, associate professor, assistant professor, instructor, lecturer, or the equivalent of any of those academic ranks. Graduate instruction (teaching) and research assistants are not included in this category.

Part-time student: Undergraduate: A student enrolled for either less than 12 semester or quarter hours or less that 24 clock hours a week each term.

Graduate: A student enrolled for less than 9 semester or quarter credits.

Research personnel: An occupational category used to classify persons whose specific assignments customarily are made for the purpose of conducting research. Regardless

of title, academic rank, these employees formally spend the majority of their time conducting research (exclude tenure/tenure-track faculty from this count).

Tuition: The amount of money charged to students for instructional services. Tuition may be charged per term, per course, or per credit

Tuition and fees (published charges): The amount of tuition and required fees covering a full academic year most frequently charged to students. These values represent what a typical student would be charged and may not be the same for all students at an institution. If tuition is charged on a per-credit-hour basis, the average full-time credit hour load for an entire academic year is used to estimate average tuition. Required fees include the fixed sum charged that are required of such a large proportion of all students that the student who does not pay the charges is an exception.

Profiles Data Collection and Reporting in 2021–22

The annual deadline for the Profiles survey submission has been January 31 since 2017, and in past years ASEE received 20 to 30 requests for extensions. Since the start of the pandemic in 2020, however, the ASEE has received over 140 requests annually for extensions and worked with institutions to accept data after the deadline. The data reported in the *Profiles of Engineering & Engineering Technology* publication reflect institutional submissions to ASEE as of August 15, 2022. Institutions submitted corrections or updates after the regular cycle for 2022. Any further corrections will not be reflected in this publication, but in the Engineering Data Management System.

Degrees awarded represent the data reported by the following 254 participating institutions:

Abilene Christian University Air Force Institute of Technology Alfred University, NY State College of Ceramics Arizona State University Auburn University **Baylor University Boise State University Boston University Bradley University Brigham Young University** Brigham Young University - Idaho **Brown University Bucknell University** California Institute of Technology California Polytechnic State University, San Luis Obispo California State Polytechnic University, Pomona California State University Maritime Academy California State University, Fullerton California State University, Long Beach California State University, Los Angeles California State University, Sacramento

Carnegie Mellon University Case Western Reserve University Cedarville University **Central Michigan University** Central State University **Clarkson University Clemson University Cleveland State University** Colorado School of Mines Colorado State University Columbia University Concordia University, Montreal Cornell University Dartmouth College, Thayer School of Engineering Drexel University **Duke University** East Carolina University Eastern Michigan University Embry Riddle Aeronautical University, Prescott Embry Riddle Aeronautical University-Daytona Beach Fairfield University FAMU-FSU College of Engineering

Florida Institute of Technology Florida International University Fu Foundation School of Engineering and Applied Science - Columbia University George Fox University George Mason University Georgia Institute of Technology Gonzaga University Grand Valley State University Harvard University Harvey Mudd College Hofstra University Howard University Indiana University-Purdue University Indianapolis Iowa State University John Brown University Kansas State University Kennesaw State University **Kettering University** Lafayette College Lawrence Technological University Lehigh University Louisiana State University Louisiana Tech University Loyola Marymount University Loyola University Chicago Marquette University Massachusetts Institute of Technology Mercer University Miami University Michigan State University Milwaukee School of Engineering Mississippi State University Missouri University of Science and Technology Montana State University Morgan State University New Jersey Institute of Technology New Mexico State University New York Institute of Technology North Carolina A&T State University North Carolina State University North Dakota State University Northeastern University Northwestern University NYU Tandon School of Engineering **Oakland University** Ohio Northern University **Oklahoma State University** Old Dominion University Olin College of Engineering Oregon Institute of Technology **Oregon State University** Penn State Erie, The Behrend College

Portland State University Princeton University Purdue University Purdue University Northwest, Engineering Purdue University Northwest, Technology Purdue University Polytechnic Institute Rensselaer Polytechnic Institute Rochester Institute of Technology Rose-Hulman Institute of Technology Rowan University Rutgers, The State University of New Jersey, School of Engineering Saint Louis University San Diego State University San Jose State University Santa Clara University Seattle University Smith College South Dakota State University Southern Illinois University Carbondale Southern Illinois University Edwardsville St. Mary's University Stanford University Stevens Institute of Technology Stony Brook University SUNY Polytechnic Institute Swarthmore College Syracuse University Temple University **Tennessee Technological University** Texas A&M University **Texas Tech University** The Catholic University of America The Citadel The City College of the City University of New York The College of New Jersey The George Washington University The Johns Hopkins University The Ohio State University The Pennsylvania State University The State University of New York at Binghamton The University of Alabama The University of Alabama in Huntsville The University of Iowa The University of Memphis The University of Mississippi The University of New Mexico The University of Texas at Arlington The University of Texas at Austin The University of Texas at Dallas The University of Texas at El Paso The University of Texas at San Antonio The University of Texas at Tyler

The University of Toledo The University of Tulsa The University of Western Ontario **Tufts University** U.S. Coast Guard Academy Union College United States Military Academy University at Buffalo, SUNY University of Alabama at Birmingham University of Alaska Fairbanks, College of **Engineering and Mines** University of Alberta University of Arizona University of Arkansas University of Arkansas at Little Rock University of British Columbia University of Calgary University of California, Berkeley University of California, Davis University of California, Irvine University of California, Los Angeles University of California, Merced University of California, Riverside University of California, San Diego University of California, Santa Barbara University of Central Florida University of Cincinnati University of Colorado Boulder University of Colorado Colorado Springs University of Colorado Denver University of Connecticut University of Dayton University of Delaware University of Detroit Mercy University of Florida University of Hawaii at Manoa University of Houston University of Idaho University of Illinois at Chicago University of Illinois at Urbana-Champaign University of Kansas University of Kentucky University of Louisiana at Lafayette University of Louisville University of Maine University of Maryland, Baltimore County University of Maryland, College Park University of Massachusetts Amherst University of Massachusetts Lowell University of Miami University of Michigan University of Michigan-Dearborn University of Minnesota -Twin Cities

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University of Missouri University of Missouri - Kansas City University of Nebraska, Lincoln University of Nevada, Las Vegas University of Nevada, Reno University of New Hampshire University of North Carolina at Charlotte University of North Texas University of Notre Dame University of Oklahoma University of Pennsylvania University of Pittsburgh University of Puerto Rico, Mayaguez Campus University of Rhode Island University of Rochester University of Saint Thomas University of San Diego University of South Alabama University of South Carolina University of South Florida University of Southern California University of Tennessee, Knoxville University of the District of Columbia University of the Pacific University of Toronto University of Utah University of Vermont University of Virginia University of Washington in Seattle University of Washington-Tacoma University of Waterloo University of Wisconsin, Milwaukee University of Wisconsin, Platteville University of Wisconsin-Madison University of Wyoming Utah State University Valparaiso University Vanderbilt University Villanova University Virginia Commonwealth University Virginia Polytechnic Institute and State University Virginia State University Washington State University Washington University in St. Louis Wayne State University Wentworth Institute of Technology West Virginia University Western Michigan University Western New England University Wichita State University Widener University School of Engineering William Marsh Rice University Worcester Polytechnic Institute

Institutions that did not participate but reported at least one degree awarded in 2020-21 to the Integrated Postsecondary Education Data System (IPEDS) were reported using data for the same period reported to the federal government. Included in this were institutions that had at least one ABET accredited program at their institution. All engineering, engineering technology and computer science degrees awarded were integrated into this data. Computer Science degrees awarded at non-participating institutions were uniformly categorized as "Computer Science (outside engineering)". The following institutions did not participate in the 2021 data collection for Profiles and their data were imported from IPEDS for 2021 degrees awarded:

Alabama A & M University Alfred University Anderson University Andrews University Arkansas Tech University Baker College **Bates College Benedictine College Bethune-Cookman University Bob Jones University** California Baptist University California State University-Bakersfield California State University-Chico California State University-East Bay California State University-Northridge California State University-San Bernardino Capitol Technology University **Carroll College Central Connecticut State University Christian Brothers University** Christopher Newport University College of Staten Island CUNY **CUNY City College** Eastern Illinois University Eastern Washington University Elizabethtown College **Fairfield University** Fairleigh Dickinson University-Metropolitan Campus Ferris State University Florida Agricultural and Mechanical University Florida Atlantic University Florida Gulf Coast University Florida International University Florida Polytechnic University Fort Lewis College Francis Marion University Frostburg State University Gannon University

Geneva College Georgia Southern University Hampton University Harding University Hope College Idaho State University Illinois Institute of Technology Indiana Institute of Technology Jackson State University James Madison University Lake Superior State University Lamar University Lawrence Technological University LeTourneau University Liberty University Lipscomb University Loras College Loyola University Maryland Maine Maritime Academy Manhattan College Marietta College Marshall University Massachusetts Maritime Academy McNeese State University Merrimack College Michigan Technological University Middle Tennessee State University Midwestern State University Minnesota State University-Mankato Mississippi College Monmouth University Montana Technological University Mount Vernon Nazarene University Murray State University Muskingum University Navajo Technical University New Mexico Institute of Mining and Technology Norfolk State University

Northern Arizona University Northern Illinois University Northwest Nazarene University Norwich University Oklahoma Christian University **Olivet Nazarene University Oral Roberts University** Pace University Prairie View A & M University Purdue University Fort Wayne **Purdue University Northwest** Purdue University-Main Campus Quinnipiac University **Rice University Robert Morris University Rochester Institute of Technology Roger Williams University** Saginaw Valley State University Saint Ambrose University Saint Francis University Saint Martin's University San Francisco State University Seattle Pacific University South Dakota School of Mines and Technology Southeast Missouri State University Southern Arkansas University Main Campus Southern Methodist University Southern New Hampshire University Southern University and A & M College Southern Utah University State University of New York at New Paltz Stephen F Austin State University SUNY College of Environmental Science and Forestry SUNY Maritime College Sweet Briar College **Tarleton State University Tennessee State University** Texas A & M University-Commerce Texas A & M University-Corpus Christi Texas A & M University-Kingsville Texas A&M University-Texarkana **Texas Christian University Texas State University** The University of Tennessee-Chattanooga The University of Tennessee-Martin The University of Texas Rio Grande Valley The University of West Florida **Thomas Jefferson University Trine University Trinity College**

Trinity University Tuskegee University Union University United States Merchant Marine Academy University of Alaska Anchorage University of Bridgeport University of Central Oklahoma University of Cincinnati-Main Campus University of Denver University of Evansville University of Hartford University of Maryland Eastern Shore University of Massachusetts-Dartmouth University of Michigan-Ann Arbor University of Michigan-Flint University of Minnesota-Duluth University of Missouri-St Louis University of Mount Union University of New Haven University of New Orleans University of North Carolina at Asheville University of North Carolina at Chapel Hill University of North Dakota University of Oklahoma-Norman Campus University of Portland University of Scranton University of South Carolina-Columbia University of South Dakota University of Southern Indiana University of Southern Maine University of Southern Mississippi University of Wisconsin-Platteville University of Wisconsin-Stevens Point University of Wisconsin-Stout Utah Valley University Vaughn College of Aeronautics and Technology Virginia Military Institute Walla Walla University Webb Institute Weber State University West Texas A & M University West Virginia University Institute of Technology Western Carolina University Western Illinois University Western Kentucky University Western Washington University Wilkes University Winona State University York College of Pennsylvania Youngstown State University

American Society for Engineering Education

The American Society for Engineering Education is a non-profit association of more than 10,000 engineering faculty members, U.S. and Canadian colleges of engineering and engineering technology, corporations, and other organizations dedicated to promoting excellence in engineering and engineering technology education. ASEE, which celebrated its centennial in 1993, plays a key role in developing and promoting policies that will enable engineering education to work with allied branches of science and technology to meet the new challenges of global competition and changing demographics.

Mission Statement

ASEE advances innovation, excellence, and access at all levels of education for the engineering profession.

Vision Statement

Excellent and broadly accessible education empowering students and engineering professionals to create a better world.

Values

Excellence, engagement, innovation, integrity, diversity and inclusion.

Goals

ASEE recognizes the term "engineering education" to encompass the full academic spectrum of instruction, research, scholarship, practice, and service. ASEE also has an enduring commitment to continuous improvement.

In the context of the above two statements, ASEE pursues the following goals:

Innovation - ASEE will advance the development of innovative approaches and solutions to engineering education.

Excellence - ASEE will advance excellence in all aspects of engineering education while continuously improving the member experience.

Access - ASEE will advocate for equal access to engineering educational opportunities for all.

Advocacy and Public Policy - ASEE will be the leading advocate for advancing the broad interests of engineering education.

Communities - ASEE will cultivate an inclusive community that engages all members and values the contributions of all stakeholders.

Communication - ASEE will implement a robust and transparent communication strategy effectively linking all stakeholders.

Diversity and Inclusion - ASEE will promote diversity, broadly defined, by modeling equity and inclusion through its policies and practices.

Internal Organization - ASEE will be a strategic and dynamic organization, with a knowledgeable and responsive staff, that enhances stakeholder engagement.

Financial Stability

ASEE must carefully balance opportunities for investments in activities and programs to meet future needs with our current responsibilities, developing and maintaining a robust cash reserve, and ensuring that expenditures align with the organization's mission.

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•	4.22 ENC 5.1 5.2 5.3 CAI 6.1 6.2 6.3 6.4 6.5 6.6	22 Percentage of Asian Tenured/Tenure-Track Faculty by Discipline	· · · · · · · · · · · · · · · · · · ·	66 67 67 68 69 69 69 69 69 69 70 70
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1 ENGINEERING BACHELOR'S

1.1 ENGINEERING BACHELOR'S DEGREES

1.1.1 Total Bachelor's Degrees Awarded by Engineering Discipline

Table 1: Bachelor's Degrees by Discipline: 146,233*

Discipline Name	Degrees Awarded
Mechanical	34,781
Computer Sci. (inside Eng.)	23,732
Computer Sci. (outside Engr.)	15,430
Civil	13,586
Electrical	13,495
Chemical	9,872
Computer	8,244
Biomedical	8,165
Industrial/Manufacturing/Systems	7,496
Other	7,231
Aerospace	5,166
Electrical/Computer	3,700
Engineering (General)	1,988
Metallurgical and Matrls.	1,841
Civil/Environmental	1,457
Biological and Agricultural	1,310
Envr. Eng	1,181
Petroleum	708
Engr. Science and Engr. Physics	689
Architectural	681
Nuclear	384
Engineering Management	375
Mining	151

^{*} Total does not include computer science (outside engineering).





1.1.2 Total Bachelor's Degrees Awarded to Underrepresented Minorities by Engineering Discipline

Table 2: Bachelor's Degrees Awarded to Underrepresented Minorities by Engineering Discipline: 24,634

Discipline Name	Degrees Awarded
Mechanical	5,934
Computer Sci. (inside Eng.)	3,365
Civil	2,935
Electrical	2,626
Computer Sci. (outside Engr.)	2,229
Chemical	1,603
Computer	1,440
Industrial/Manufacturing/Systems	1,289
Biomedical	1,268
Other	1,215
Aerospace	797
Electrical/Computer	512
Engineering (General)	313
Civil/Environmental	291
Metallurgical and Matrls.	230
Envr. Eng	189
Biological and Agricultural	158
Petroleum	137
Architectural	121
Engineering Management	74
Engr. Science and Engr. Physics	72
Nuclear	45
Mining	20

1.1.3 Percentage of Bachelor's Degrees Awarded to Underrepresented Minorities by Discipline

Table 3: Percentage of Bachelor's Degrees Awarded to Underrepresented Minorities by Discipline 16.5 % of Total

Discipline Name	Degrees Awarded
Civil	21.6%
Civil/Environmental	20%
Engineering Management	19.7%
Electrical	19.5%
Petroleum	19.4%
Architectural	17.8%
Computer	17.5%
Industrial/Manufacturing/Systems	17.2%
Mechanical	17.1%
Other	16.8%
Chemical	16.2%
Envr. Eng	16%
Engineering (General)	15.7%
Biomedical	15.5%
Aerospace	15.4%
Computer Sci. (outside Engr.)	14.4%
Computer Sci. (inside Eng.)	14.2%
Electrical/Computer	13.8%
Mining	13.2%
Metallurgical and Matrls.	12.5%
Biological and Agricultural	12.1%
Nuclear	11.7%
Engr. Science and Engr. Physics	10.4%

1.1.4 Percentage of Bachelor's Degrees Awarded to Women by Discipline

Table 4: Percentage of Bachelor's Degrees Awarded to Women by Discipline 24 % of Total

Discipline Name	Percent Women
Envr. Eng	57.8%
Biomedical	51.5%
Biological and Agricultural	39.1%
Chemical	38.5%
Architectural	36%
Industrial/Manufacturing/Systems	34.1%
Metallurgical and Matrls.	32.6%
Engineering Management	31.2%
Civil/Environmental	30.6%
Civil	28.1%
Other	27.7%

Discipline Name	Percent Women
Engineering (General)	27.1%
Engr. Science and Engr. Physics	23.1%
Computer Sci. (outside Engr.)	21.5%
Mining	21.2%
Computer Sci. (inside Eng.)	19.9%
Electrical/Computer	19.1%
Petroleum	17.4%
Mechanical	17.3%
Nuclear	16.9%
Aerospace	15.9%
Electrical	15.5%

15.4%

Table 4: Percentage of Bachelor's Degrees Awarded to Women by Discipline 24 % of Total *(continued)*

Percentage of Bachelor's Degrees Awarded to Women by Discipline



Computer

1.1.5 Institutions Awarding the Highest Number of Engineering Bachelor's Degrees

Table 5: Institutions Awarding the Highest Number of EngineeringBachelor's Degrees

No	Institutions	Degrees Awarded
1	Georgia Institute of Technology	2,765
2	Purdue University	2,479
3	University of Illinois at Urbana-Champaign	2,465
4	Texas A&M University	2,375
5	University of Michigan	2,316
6	Arizona State University	2,304
7	University of California, Irvine	2,138
8	The Pennsylvania State University	2,037
9	Virginia Polytechnic Institute and State University	2,013
10	University of Central Florida	1,926
11	The Ohio State University	1,855
12	Iowa State University	1,845
13	University of California, Berkeley	1,839
14	University of Maryland, College Park	1,799
15	University of Florida	1,765
16	The University of Texas at Austin	1,751
17	Oregon State University	1,695
18	University of Wisconsin-Madison	1,687
19	North Carolina State University	1,678
20	University of California, San Diego	1,645
21	Rutgers, The State University of New Jersey, School of Engineering	1,522
22	California Polytechnic State University, San Luis Obispo	1,495
23	Northeastern University	1,322
23	University of Washington in Seattle	1,322
25	University of Colorado Boulder	1,274
26	New Jersey Institute of Technology	1,257
27	Stony Brook University	1,254
28	The University of Texas at Dallas	1,207
29	University of Minnesota -Twin Cities	1,184
30	Auburn University	1,173
31	George Mason University	1,164
32	University at Buffalo, SUNY	1,158
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Table 5: Institutions Awarding the Highest Number of Engineering Bachelor's Degrees *(continued)*

No	Institutions	Degrees Awarded
33	Missouri University of Science and Technology	1,147
34	Clemson University	1,141
35	Rensselaer Polytechnic Institute	1,137
36	California State Polytechnic University, Pomona	1,066
37	University of California, Los Angeles	1,060
38	University of Virginia	1,031
39	Colorado School of Mines	1,024
40	Michigan State University	1,020
41	The University of Alabama	991
42	Mississippi State University	949
43	University of Arizona	948
44	San Jose State University	938
45	University of Houston	930
46	Cornell University	925
47	University of Maryland, Baltimore County	924
48	Louisiana State University	921
49	California State University, Long Beach	910
50	Texas Tech University	903

^{*} 404 Institutions included

1.1.6 Bachelor's Degrees Awarded by Gender

Table 6:	Bachelor's	Degrees	Awarded	by Gende	r
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Gender	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Female	17.80%	18.10%	18.40%	18.90%	19.10%	19.90%	20.90%	21.30%	21.90%	22.40%	23.00%	23.60%
Male	82.20%	81.90%	81.60%	81.10%	80.90%	80.10%	79.10%	78.70%	78.10%	77.60%	77.00%	76.40%



Bachelor's Degrees Awarded by Gender



Table 7: Bachelor's Degrees Awarded by Ethnicity

Ethnicity	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Black or Afr. American	4.5%	4.2%	4.2%	4.3%	3.5%	4.0%	3.9%	4.1%	4.2%	4.3%	4.5%	4.7%
Hispanic	7.0%	8.5%	9.0%	9.3%	10.1%	10.7%	10.7%	11.1%	11.4%	12.1%	13%	13.6%
Other	1.2%	1.6%	2.0%	2.3%	2.9%	3.1%	3.6%	3.8%	3.5%	4.3%	4.4%	4.6%
Asian American	12.2%	12.2%	12.2%	12.9%	13.1%	13.4%	14.2%	14.6%	14.7%	14.7%	14.9%	15.6%
White	69.8%	66.6%	66.2%	65.7%	65.9%	64.9%	63.4%	62.3%	61.5%	60.8%	59.6%	58%
Unknown	5.3%	6.9%	6.5%	5.6%	4.5%	3.9%	4.2%	4.1%	4.2%	3.8%	3.6%	3.6%

*Data on ethnicity does not include foreign nationals. American Indian/Alaska Native (0.3%), Native Hawaiian/Other Pacific Islander(0.1%) and Multiracial (4.2%) are combined under Other.



1.1.8 Bachelor's Degrees Awarded by Residency

Table 8: Bachelor's Degrees Awarded by Residency

Nationality	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Foreign	6.2%	6.2%	6.7%	7.5%	7.8%	8.5%	9.1%	9.6%	10.1%	11.2%	11.2%	10.6%
Domestic	94.0%	93.8%	93.3%	92.5%	92.2%	91.5%	90.9%	90.4%	89.9%	88.8%	88.8%	89.4%



Bachelor's Degrees Awarded by Residency

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Table 9: Bachelor's Degrees	Awarded by Race	. Ethnicity, and	d Gender 146,233*

Ethnicity	Degrees Awarded
Nonresident Alien Male	11,837
Nonresident Alien Female	3,364
Unknown Male	3,264
Unknown Female	1,204
Hispanic Male	13,406
Hispanic Female	4,483
White Male	58,706
White Female	16,988
Black or Afr. American Male	4,315
Black or Afr. American Female	1,808
Asian American Male	14,591
Asian American Female	5,997
American Indian Male	313
American Indian Female	116
Native Hawaiian/Other Pacific Islander Male	147
Native Hawaiian/Other Pacific Islander Female	39
Multiracial Male	3,928
Multiracial Female	1,520
Total Male	110,507
Total Female	35,519

^{*} Total degree includes 10 total Non binary graduates and 201 total Other Gender graduates.

Includes 480 male and 193 female graduates from Puerto Rico.

Bachelor's Degrees Awarded by Race, Ethnicity, and Gender





Table 10: Top 50 Institutions by Total Bachelor's Degrees awarded to Underrepresented Minorities

No	Institutions	Degrees Awarded
1	University of Puerto Rico, Mayaguez Campus	673
2	University of Central Florida	603
3	Florida International University	578
4	Texas A&M University	572
5	The University of Texas at El Paso	492
6	Arizona State University	470
7	The University of Texas at San Antonio	465
8	University of Florida	461
9	California State Polytechnic University, Pomona	433
10	The University of Texas Rio Grande Valley	398
11	University of California, Irvine	375
12	Georgia Institute of Technology	353
13	California State University, Long Beach	352
14	New Jersey Institute of Technology	331
15	The University of Texas at Austin	314
16	University of Houston	307
17	Texas Tech University	296
18	University of California, San Diego	294
19	California State University, Los Angeles	279

Table 10: Top 50 Institutions by Total Bachelor's Degrees awarded to Underrepresented Minorities *(continued)*

No	Institutions	Degrees Awarded
20	California State University, Sacramento	258
21	University of Maryland, College Park	256
22	University of Arizona	254
23	North Carolina A&T State University	249
24	FAMU-FSU College of Engineering	239
25	California State University, Northridge	238
26	California Polytechnic State University, San Luis Obispo	237
27	The University of Texas at Arlington	230
28	The University of Texas at Dallas	229
29	University of California, Merced	227
29	University of Illinois at Chicago	227
31	George Mason University	223
31	University of California, Riverside	223
33	Rutgers, The State University of New Jersey, School of Engineering	204
34	San Jose State University	197
35	University of Michigan	196
36	University of South Florida	191
37	San Diego State University	190
37	University of California, Davis	190
37	University of Illinois at Urbana-Champaign	190
40	University of Maryland, Baltimore County	186
41	Kennesaw State University	177
41	Texas State University	177
41	Virginia Polytechnic Institute and State University	177
44	Oregon State University	167
45	Massachusetts Institute of Technology	166
46	New Mexico State University	165
47	North Carolina State University	161
48	University of Colorado Boulder	160
48	University of North Texas	160
50	Cornell University	150
* 40	1 Institutions included	·

^{*} 404 Institutions included

1.1.11 Top 50 Institutions by Total Bachelor's Degrees awarded to Women

Table 11: Top 50 Institutions by Total Bachelor's Degrees awarded to Women

No	Institutions	Degrees Awarded
1	Georgia Institute of Technology	847
2	University of Michigan	659
3	Purdue University	625
4	Texas A&M University	584
5	University of Illinois at Urbana-Champaign	573
6	University of California, Irvine	528
7	University of California, Berkeley	525
8	University of Florida	499
9	Virginia Polytechnic Institute and State University	498
10	The University of Alabama in Huntsville	495
11	The University of Texas at Austin	477
12	Arizona State University	460
13	Cornell University	458
13	The Pennsylvania State University	458
15	University of Maryland, College Park	436
16	North Carolina State University	429
17	California Polytechnic State University, San Luis Obispo	418
18	The Ohio State University	415
19	University of Wisconsin-Madison	408
20	Northeastern University	406
21	University of California, San Diego	399
22	University of Washington in Seattle	389
23	University of Central Florida	369
24	Rutgers, The State University of New Jersey, School of Engineering	363
25	University of Virginia	362
26	Oregon State University	357
27	Worcester Polytechnic Institute	345
28	Massachusetts Institute of Technology	332
29	University of Colorado Boulder	324
30	Colorado School of Mines	309
31	Stony Brook University	305
32	Rensselaer Polytechnic Institute	292
33	Clemson University	288
33	University of California, Los Angeles	288
35	Iowa State University	286
36	University of Minnesota -Twin Cities	278
37	Carnegie Mellon University	277
38	George Mason University	275
39	The University of Texas at Dallas	269
40	University of Southern California	264
41	Missouri University of Science and Technology	263

Table 11: Top 50 Institutions by Total Bachelor's Degrees awarded to Women *(continued)*

No	Institutions	Degrees Awarded
42	New Jersey Institute of Technology	262
43	The University of Alabama	252
44	University of Arizona	251
45	Stanford University	243
46	University of California, Davis	241
47	University at Buffalo, SUNY	240
48	Michigan State University	239
49	University of Maryland, Baltimore County	235
50	Auburn University	231
* 404	1 Institutions included	

1.1.12 Top 50 Institutions by Percentage of Bachelor's Degrees awarded to Underrepresented Minorities

Table 12: Top 50 Institutions by Percentage of Bachelor's Degrees awarded to Underrepresented Minorities

No	Institutions	Percent Underrepresented Minorities
1	Navajo Technical University	100%
1	University of Puerto Rico, Mayaguez Campus	100%
3	Southern University and A & M College	97.4%
4	Hampton University	92.9%
5	The University of Texas Rio Grande Valley	90%
6	Central State University	88.9%
7	Alabama A & M University	88.2%
8	Norfolk State University	87.5%
9	Jackson State University	87.3%
10	Florida Agricultural and Mechanical University	81.6%
11	Virginia State University	78.7%
12	Tuskegee University	76.1%
13	Prairie View A & M University	75.9%
14	The University of Texas at El Paso	75.6%
15	Bethune-Cookman University	75%
15	North Carolina A&T State University	75%
17	Florida International University	68.2%
18	University of Maryland Eastern Shore	66.7%
19	• •	66.2%
	Howard University	61%
20	Morgan State University	
21	Texas A&M University - Kingsville	60.2%
22	The University of Texas at San Antonio	57.3%
23	California State University, Los Angeles	56.4%
24	University of the District of Columbia	55.6%
25	University of California, Merced	53%
26	New Mexico State University	52.1%
27	California State University-San Bernardino	51.2%
28	California State University-Fresno	47.6%
29	New Mexico Institute of Mining and Technology	45.4%
30	Texas A & M University-Corpus Christi	45.4%
31	The University of Texas at Tyler	44.4%
32	Texas State University	43.9%
33	California State University-Bakersfield	43.5%
34	Florida Atlantic University	41.9%
35	The University of New Mexico	40.8%
36	California State Polytechnic University, Pomona	40.6%
37	Texas A & M University-Commerce	39.5%
38	Vaughn College of Aeronautics and Technology	38.9%
39	California State University, Long Beach	38.7%
40	Capitol Technology University	37.5%
41	Tennessee State University	36.5%
42	FAMU-FSU College of Engineering	36.4%
43	California State University, Northridge	35.7%
44	Thomas Jefferson University	35.3%
45	Stephen F Austin State University	35%
46	Andrews University	34.5%
46	Fairleigh Dickinson University-Metropolitan Campus	34.5%
46	Harvey Mudd College	34.5%
49	University of California, Riverside	33.8%
50	Fort Lewis College	33.3%
	1 Institutions included	

^{*} 404 Institutions included

Table 13: Top 20 Institutions by Percentage of Bachelor's Degrees awarded to Women

No	Institutions	Percent Women
1	Navajo Technical University	100%
1	Smith College	100%
1	Sweet Briar College	100%
4	The University of Alabama in Huntsville	80.8%
5	Harvey Mudd College	58.6%
6	Loyola University Chicago	57.9%
7	Olin College of Engineering	53.9%
8	Bates College	50%
9	Cornell University	49.5%
10	The George Washington University	46.3%
11	Massachusetts Institute of Technology	44.1%
12	Carnegie Mellon University	43.1%
13	Stanford University	42.9%
14	Harvard University	42%
15	Fu Foundation School of Engineering and Applied Science - Columbia University	41.5%
16	Tufts University	41.4%
17	Hope College	41.2%
17	Thomas Jefferson University	41.2%
19	University of Pennsylvania	40.7%
20	Howard University	40.5%

^{*} 404 Institutions included

1.1.14 Top 20 Institutions by Total Bachelor's Degrees awarded to African Americans

Table 14: Top 20 Institutions by Total Bachelor's Degrees awarded to African Americans

No	Institutions	Degrees Awarded
1	North Carolina A&T State University	229
2	Georgia Institute of Technology	152
3	University of Maryland, College Park	142
4	University of Maryland, Baltimore County	129
5	Morgan State University	123
6	Prairie View A & M University	122
7	FAMU-FSU College of Engineering	119
8	Kennesaw State University	116
9	George Mason University	101
10	University of Central Florida	99
11	Mississippi State University	94
12	Tuskegee University	84
13	New Jersey Institute of Technology	75
14	Southern University and A & M College	74
15	Georgia Southern University	72
16	University of South Carolina	69
17	Clemson University	62
17	Texas Tech University	62
19	Rutgers, The State University of New Jersey, School of Engineering	61
19	Texas A&M University	61

^{*} 404 Institutions included

1.1.15 Top 20 Institutions by Total Bachelor's Degrees awarded to Asian Americans

Table 15: Top 20 Institutions by Total Bachelor's Degrees awarded to Asian Americans

No	Institutions	Degrees Awarded
1	University of California, Berkeley	981
2	University of California, Irvine	935
3	University of California, San Diego	868
4	Georgia Institute of Technology	706
5	University of Illinois at Urbana-Champaign	643
6	The University of Texas at Austin	636
7	Rutgers, The State University of New Jersey, School of Engineering	609
8	University of Maryland, College Park	467
9	University of Michigan	454
10	Stony Brook University	445
11	The University of Texas at Dallas	443
12	University of California, Los Angeles	430
13	San Jose State University	384
14	George Mason University	368
15	University of Washington in Seattle	333
16	Texas A&M University	329
17	New Jersey Institute of Technology	308
18	California Polytechnic State University, San Luis Obispo	284
19	Cornell University	281
19	Purdue University	281

^{*} 404 Institutions included

Table 16: Top 20 Institutions by Total Bachelor's Degrees awarded to Hispanics

No	Institutions	Degrees Awarded
1	University of Puerto Rico, Mayaguez Campus	673
2	Florida International University	519
3	Texas A&M University	506
4	University of Central Florida	498
5	The University of Texas at El Paso	488
6	The University of Texas at San Antonio	435
7	University of Florida	410
8	California State Polytechnic University, Pomona	406
9	The University of Texas Rio Grande Valley	396
10	Arizona State University	387
11	University of California, Irvine	338
12	California State University, Long Beach	331
13	The University of Texas at Austin	278
14	California State University, Los Angeles	270
15	University of Houston	269
16	University of California, San Diego	259
17	New Jersey Institute of Technology	253
18	University of Arizona	235
19	Texas Tech University	231
20	California State University, Northridge	229

^{*} 404 Institutions included

1.1.17 Top 20 Institutions by Total Bachelor's Degrees awarded in Aerospace Engineering

Table 17: Top 20 Institutions by Total Bachelor's Degrees awarded in Aerospace Engineering

No	Institutions	Degrees Awarded
1	Purdue University	255
2	University of Central Florida	206
3	Georgia Institute of Technology	201
4	Embry Riddle Aeronautical University-Daytona Beach	199
5	University of Colorado Boulder	194
6	Virginia Polytechnic Institute and State University	173
7	Texas A&M University	169
8	Iowa State University	160
9	University of Maryland, College Park	156
10	The University of Texas at Austin	143
11	University of California, San Diego	130
12	Embry Riddle Aeronautical University, Prescott	127
12	The Pennsylvania State University	127
14	University of Florida	126
14	University of Michigan	126
16	University of Southern California	120
17	Rensselaer Polytechnic Institute	114
18	University of Illinois at Urbana-Champaign	105
19	California Polytechnic State University, San Luis Obispo	98
20	California State Polytechnic University, Pomona	96
* 70		

^{*} 72 Institutions included

1.1.18 Top 20 Institutions by Total Bachelor's Degrees awarded in Biomedical Engineering

Table 18: Top 20 Institutions by Total Bachelor's Degrees awarded in Biomedical Engineering

No	Institutions	Degrees Awarded
1	Georgia Institute of Technology	252
2	University of California, San Diego	155
3	Texas A&M University	149
4	North Carolina State University	148
5	Boston University	138
6	University of California, Irvine	135
7	University of Wisconsin-Madison	129
8	University of Maryland, College Park	125
9	University of Michigan	122
10	University of Virginia	119
11	Arizona State University	115
12	The Johns Hopkins University	114
12	The University of Texas at Dallas	114
14	The University of Texas at Austin	113
15	The University of Iowa	112
16	Northeastern University	108
17	Rensselaer Polytechnic Institute	105
18	Clemson University	104
19	University of California, Berkeley	103
20	University of Florida	102

* 178 Institutions included

1.1.19 Top 50 Institutions by Total Bachelor's Degrees awarded in Chemical Engineering

Table 19: Top 50 Institutions by Total Bachelor's Degrees awarded in Chemical Engineering

No	Institutions	Degrees Awarded
1	Texas A&M University	231
2	Georgia Institute of Technology	185
3	Purdue University	165
4	The University of Texas at Austin	164
5	The Ohio State University	163
6	The University of Alabama	161
7	University of Illinois at Urbana-Champaign	156
8	Colorado School of Mines	151
9	Arizona State University	149
9	The Pennsylvania State University	149
11	University of California, Berkeley	145
12	North Carolina State University	141
13	Mississippi State University	131
14	Louisiana State University	130
15	Michigan State University	126
16	University of South Florida	125
17	Iowa State University	123
18	Northeastern University	119
19	University of Michigan	113
20	Oregon State University	115
20	University of Puerto Rico, Mayaguez Campus	115
22	University of Cincinnati	108
22	University of Minnesota -Twin Cities	108
24	Brigham Young University	103
24	Colorado State University	107
25	University of Kentucky	105
25	University of Pittsburgh	105
28	Missouri University of Science and Technology	103
29	Michigan Technological University	103
30	University of California, Davis	103
31	University of Florida	99
31	University of Wisconsin-Madison	99
33	University of Tennessee, Knoxville	98
34	University of California, San Diego	96
35	Virginia Polytechnic Institute and State University	95
36	Auburn University	90
37	Drexel University	89
38	Montana State University	86
38	University of Arizona	86
38	University of Massachusetts Lowell	86
41	University of California, Los Angeles	82
41	New Jersey Institute of Technology	80
42		79
	University of Notre Dame	
44 44	California State Polytechnic University, Pomona	75
	University of Delaware	
46	Rensselaer Polytechnic Institute	74
46	University of California, Riverside	74
48	NYU Tandon School of Engineering	72
48	Rutgers, The State University of New Jersey, School of Engineering	72
48	University of Utah	72
158	8 Institutions included	

1.1.20 Top 50 Institutions by Total Bachelor's Degrees awarded in Civil Engineering

Table 20: Top 50 Institutions by Total Bachelor's Degrees awarded in Civil Engineering

No	Institutions	Degrees Awarded
1	California State Polytechnic University, Pomona	292
2	Virginia Polytechnic Institute and State University	240
3	Texas A&M University	236
4	The Pennsylvania State University	215
5	University of Illinois at Urbana-Champaign	202
6	New Jersey Institute of Technology	197
7	Purdue University	196
8	California State University, Long Beach	187
9	California State University, Sacramento	185
9	Iowa State University	185
9	The University of Texas at Arlington	185
12	California Polytechnic State University, San Luis Obispo	172
13	University of Florida	169
14	University of Central Florida	154
15	North Carolina State University	152
16	University of Washington in Seattle	150
17	The University of Alabama	144
18	San Diego State University	137
19	University at Buffalo, SUNY	128
20	University of Maryland, College Park	127

Table 20: Top 50 Institutions by Total Bachelor's Degrees awarded
in Civil Engineering (continued)

s Awarded
124
122
121
121
118
116
116
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112
110
110
109
108
107
105
103
102
99
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97
95
91
90
89
89
89
89
88
87

^{*} 239 Institutions included

1.1.21 Top 50 Institutions by Total Bachelor's Degrees awarded in Industrial/Manufacturing Engineering

Table 21: Top 50 Institutions by Total Bachelor's Degrees awarded in Industrial/Manufacturing Engineering

No	Institutions	Degrees Awarded
1	University of California, Berkeley	735
2	Georgia Institute of Technology	338
3	Purdue University	264
4	Texas A&M University	212
5	Virginia Polytechnic Institute and State University	205
6	University of Michigan	186
7	The Pennsylvania State University	183
8	Arizona State University	162
9	Clemson University	160
10	University of Illinois at Urbana-Champaign	152
11	University of Arizona	147
12	University of Florida	140
13	University of Central Florida	138
14	The Ohio State University	129
15	California Polytechnic State University, San Luis Obispo	126
16	West Virginia University	125
17	Auburn University	123
18	California State Polytechnic University, Pomona	120
19	Iowa State University	117
20	University of Virginia	108
21	University of Wisconsin-Madison	105
22	North Carolina State University	103
23	Lehigh University	102
24	University of Puerto Rico, Mayaguez Campus	94
25	Oregon State University	89
26	University of Southern California	87
27	Cornell University	86
28	University of Pittsburgh	85
29	University of Minnesota -Twin Cities	81
30	The University of Texas at El Paso	79
31	San Jose State University	73
32	Northwestern University	72
32	University of Oklahoma, Gallogly College of Engineering	72
34	Mississippi State University	69
35	Stanford University	67
36	Rutgers, The State University of New Jersey, School of Engineering	64
36	Texas State University	64
36	The State University of New York at Binghamton	64
39	University of Arkansas	63
40	Fu Foundation School of Engineering and Applied Science - Columbia University	62
41	Worcester Polytechnic Institute	59
42	Louisiana State University	56

Table 21: Top 50 Institutions by Total Bachelor's Degrees awarded in Industrial/Manufacturing Engineering (continued)

No	Institutions	Degrees Awarded
43	Rensselaer Polytechnic Institute	54
43	Texas Tech University	54
45	Kansas State University	53
45	University of South Florida	53
47	The University of Iowa	52
47	University at Buffalo, SUNY	52
49	University of Miami	48
50	Rochester Institute of Technology	46

146 Institutions included

1.1.22 Top 50 Institutions by Total Bachelor's Degrees awarded in Mechanical Engineering

Table 22: Top 50 Institutions by Total Bachelor's Degrees awarded in Mechanical Engineering

1 Georgia Institute of Technology 510 2 Iowa State University 451 4 University of Central Florida 445 4 Purdue University 394 5 Texas A&M University 394 6 University at Buffalo, SUNY 380 7 Virginia Polytechnic Institute and State University 376 8 University of Alabama 373 9 The University of Alabama 343 10 University of Alabama 373 11 The Pennsylvania State University 327 11 University of Michigan 317 12 California Polytechnic State University, San Luis Obispo 315 15 Texas Tech University 288 16 Colorado School of Mines 299 17 California, Irvine 287 20 North Carolina State University 288 10 University of California, Irvine 287 20 North Carolina State University 283 21 Oregon State University 273 22 Nethigan Tec	No	Institutions	Degrees Awarded
3 University of Central Florida 445 4 Purdue University 396 5 Texas A&M University 384 6 University at Buffalo, SUNY 380 7 Wrignin Polytechnic Institute and State University 376 8 University of Florida 373 9 The University of Alabama 343 10 University of Alayland, College Park 330 11 The Pennsylvania State University 328 12 Northeastern University 328 13 University of Michigan 317 14 California Polytechnic State University, San Luis Obispo 315 15 Texas Tech University 228 16 Colorado School of Mines 299 17 Cardiomia State University 288 10 University of California, Irvine 287 10 Res Tex State University 283 110 State University 273 2110 Tregon State University 273 221 Oregon State University 263 2222 New Jarsey	1	Georgia Institute of Technology	510
4 Purdue Úniversity 396 5 Texas A&M University 394 6 University at Buffalo, SUNY 380 7 Virginia Polytechnic Institute and State University 376 8 University of Florida 373 9 The University of Alabama 343 10 University of Maryland, College Park 330 11 The Pennsylvania State University 328 12 Northeastern University 328 13 University of Michigan 317 14 California Polytechnic State University, San Luis Obispo 315 15 Texas Tech University 299 16 Colorado School of Mines 299 17 Ordifornia, Invine 288 19 University of California, Invine 288 10 University of California, Invine 287 21 The University 288 22 The University of Texas at Austin 274 23 Arizona State University 283 23 Oklahoma State University 266 24 North Car	2	Iowa State University	451
5 Texas A&M University at Buffalo, SUNY 380 6 University at Buffalo, SUNY 380 7 Virginia Polytechnic Institute and State University 376 8 University of Florida 373 9 The University of Alabama 343 0 University of Maryland, College Park 330 10 Thre Pennsylvania State University 328 12 Northeastern University 328 13 University of Michigan 317 14 California Polytechnic State University, San Luis Obispo 315 15 Texas Tech University 288 14 Colorado School of Mines 299 15 Colorado State University 288 10 University of California, Irvine 287 14 Colorado State University 280 15 Texas at Austin 274 26 North Carolina State University 283 27 The University of Texas at Austin 274 28 Aizona State University 283 29 Michigan Technological University 285 <t< td=""><td>3</td><td>University of Central Florida</td><td>445</td></t<>	3	University of Central Florida	445
6 University at Buffalo, SUNY 380 7 Virgina Polytechnic Institute and State University 376 8 University of Florida 373 9 The University of Alabama 343 10 University of Maryland, College Park 330 11 The Pennsylvania State University 328 12 University of Kohigan 317 13 University of Kohigan 317 14 California Polytechnic State University, San Luis Obispo 315 15 Texas Tech University 299 16 Colorado School of Mines 299 17 Oniversity of California, Irvine 287 18 University of California, Irvine 287 19 University of Texas at Austin 274 20 North Carolina State University 280 21 The University of Texas at Austin 274 23 Anizona State University 263 24 Michigan Technological University 263 25 Oklahoma State University 263 26 University of California, Davis 252 27 Auburn University 263 28 New Jersey Institute of Technology 260 29 <	4	Purdue University	396
7Virginia Polytechnic Institute and State University of Florida3768University of Florida3739The University of Alabama34310University of Maryland, College Park33011The Pennsylvania State University32812Northeastern University32713University of Michigan31714California Polytechnic State University, San Luis Obispo31515Texas Tech University29916Washington State University29916Washington State University29917Celorado School of Mines29918Clemson University28819University of California, Irvine28720North Carolina State University28521Oregon State University28022The University of Texas at Austin27423Arizona State University26324Michigan Technological University26325Oklahoma State University26328New Jersey Institute of Technology25029Michigan State University24320Miversity of Alabama in Huntsville24321University of Colorado Boulder24022University of Colorado Boulder24023University of Olorado Boulder23634Misouri University23335Misouri University of Science and Technology23336The Ohio State University	5	Texas A&M University	394
8 University of Florida 373 9 The University of Alabama 343 10 University of Anyland, College Park 330 11 The Pennsylvania State University 328 12 Northeastern University 327 13 University of Kichbigan 317 14 California Polytechnic State University, San Luis Obispo 315 15 Texas Tech University 209 16 Washington State University 209 17 Oniversity of California, Irvine 287 18 University of Texas at Austin 274 19 University of Texas at Austin 274 10 Priversity of California, Davis 253 20 North Carolina State University 266 21 The University of California, Davis 253 22 New Jersey Institute of Technology 250 23 Nucleastama in Huntsville 243 24 University of California, San Diego 240 23 University of California, San Diego 240 24 University of California, San Diego	6	University at Buffalo, SUNY	380
9The University of Alabama34310University of Maryland, College Park33011The Pennsylvania State University32812Northeastern University32713University of Michigan31714California Polytechnic State University, San Luis Obispo31515Texas Tech University30516Colorado School of Mines29917Washington State University29918Clemson University28819University of California, Irvine28710North Carolina State University28521Oregon State University28522The University of Texas at Austin27423Arizona State University27324Michigan Technological University26625Okidoma State University26626University of California, Davis25227Auburn University26028New Jersey Institute of Technology26029Michigan State University24331University of California, San Diego24032University of California, San Diego24033University of Exas at Dallas23434Kettering University23335University of Fexas at Dallas23436The University of Science and Technology23337University of Massachusetity23338Missouri University23339Unive	7	Virginia Polytechnic Institute and State University	376
10University of Maryland, College Park33011The Pennsylvania State University32812Northeastern University32713University of Michigan31714California Polytechnic State University, San Luis Obispo31515Texas Tech University30516Colorado School of Mines29917Washington State University29918Clemson University28819University of California, Irvine28720North Carolina State University28021Oregon State University28022The University of Texas at Austin27423Arizona State University26324Michigan Technological University26625Valkohoma State University25026New Jersey Institute of Technology25029Michigan State University25228New Jersey Institute of Technology25029Michigan State University24320University of California, San Diego24021University of California, San Diego24022University of Science and Technology23533Missouri University23834Kettering University23835University of Science and Technology23336The Ohio State University of New Jersey, School of Engineering22837Missouri University of Science and Technology23336The	8	University of Florida	373
11The Pennsylvania State University32812Northeastern University32713University of Kichigan31714California Polytechnic State University, San Luis Obispo31515Texas Tech University30516Colorado School of Mines29917Washington State University29918Clemson University29918Clemson University28819University of California, Irvine28710North Carolina State University28521Oregon State University28022The University of Texas at Austin27434Arizona State University26325Oklahoma State University26326University of California, Davis25327Auburn University26228New Jersey Institute of Technology25029Michigan State University24329The University of Alabama in Huntsville24321University of California, San Diego24022University of Claifornia, San Diego24023University of Joorado Boulder24024Rensselaer Polytechnic Institute23323Missouri University of Science and Technology23333Missouri University of Science and Technology23334Kettering University of Science and Technology23335Missachusetts Lowell24436The University of Science an	9	The University of Alabama	343
12Northeastern University32713University of Michigan31714California Polytechnic State University, San Luis Obispo31515Texas Tech University30516Colorado School of Mines29917Washington State University29918Clemson University29918Clemson University28819University of California, Irvine28720North Carolina State University28021Oregon State University28022The University of Texas at Austin27423Arizona State University26324Michigan Technological University26325Oklahoma State University26628New Jersey Institute of Technology25029Michigan State University25228New Jersey Institute of Technology25029Michigan State University24331University of California, San Diego24020University of Colorado Boulder24021University of Science and Technology23333Missouri University of Science and Technology23334Kettering University of Science and Technology23335University of Science and Technology23336The University of Science and Technology23337Museuri University of Science and Technology23338Missouri University of Science and Technology233<	10	University of Maryland, College Park	330
13University of Michigan31714California Polytechnic State University, San Luis Obispo31515Texas Tech University30616Colorado School of Mines29917Washington State University29918Clemson University28819University of California, Irvine28720North Carolina State University28521Oregon State University28522The University of Texas at Austin27424Arizona State University26325Oklahoma State University26326University of California, Davis25327Auburn University25628New Jersey Institute of Technology25029Michigan State University24329The University of Alabama in Huntsville24320University of California, San Diego24021University of Clorado Boulder24022University of Clorado Boulder24023University of Texas at Dallas23434Kettering University23335Missouri University of Science and Technology23336The University of Texas at Dallas23437He University of New Jersey, School of Engineering22835Asouri University of Texas at Dallas23436The University of Texas at Dallas23437University of Texas at Dallas23438Missouri University </td <td>11</td> <td>The Pennsylvania State University</td> <td>328</td>	11	The Pennsylvania State University	328
14California Polytechnic State University, San Luis Obispo31515Texas Tech University30516Colorado School of Mines29917Korado School of Mines29918Clemson University28819University of California, Irvine28710North Carolina State University28521Oregon State University28521Oregon State University28323The University of Texas at Austin27424Arizona State University26325Oklahoma State University26326University of California, Davis25327Auburn University25228New Jersey Institute of Technology25029Michigan State University24330University of California, San Diego24031University of California, San Diego24034Rensselaer Polytechnic Institute23935University of Houston23636The Ohio State University23337Missouri University of Science and Technology23338Missouri University23339University of Science and Technology23330California State Polytechnic University, Pomona23134Kettering University22835San Diego State University22836The University of Science and Technology23337California State Polytechnic University, Pomona <td>12</td> <td>Northeastern University</td> <td>327</td>	12	Northeastern University	327
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16Colorado School of Mines29916Washington State University29918Clemson University28819University of California, Irvine28720North Carolina State University28521Oregon State University28522The University of Texas at Austin2743Arizona State University26324Michigan Technological University26325Oklahoma State University25326University of California, Davis25327Auburn University25228New Jersey Institute of Technology25029Michigan State University24330The University of Alabama in Huntsville24331University of Alabama in Huntsville24332University of California, San Diego24034Rensselaer Polytechnic Institute23935University of Texas at Dallas23436The University23337Missouri University of Science and Technology23338Missouri University of New Jersey, School of Engineering22839Ne University of Texas at Dallas23440California State University22841Rutgers, The State University of New Jersey, School of Engineering22843San Diego State University of New Jersey, School of Engineering22844California State University, Northridge22245California State Univers	14	California Polytechnic State University, San Luis Obispo	315
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26University of California, Davis25327Auburn University25228New Jersey Institute of Technology25029Michigan State University24329The University of Alabama in Huntsville24331University of Alabama in Huntsville24332University of California, San Diego24032University of Colorado Boulder24034Rensselaer Polytechnic Institute23935University of Houston23636The Ohio State University23437The University of Texas at Dallas23438Missouri University of Science and Technology23339California State Polytechnic University, Pomona23141Kennesaw State University22841Rutgers, The State University of New Jersey, School of Engineering22843San Diego State University, Northridge22244The University of Texas at El Paso22244California State University, Sacramento21347University of North Carolina at Charlotte21349Mississippi State University20649University of South Carolina206	24	Michigan Technological University	263
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29Michigan State University24329The University of Alabama in Huntsville24331University of Alabama in Huntsville24332University of California, San Diego24032University of Colorado Boulder24034Rensselaer Polytechnic Institute23935University of Houston23636The Ohio State University23437The University of Texas at Dallas23438Kettering University23339Ocalifornia State Polytechnic University, Pomona23141Kennesaw State University22841Rutgers, The State University of New Jersey, School of Engineering22843San Diego State University, Northridge22244California State University, Northridge22244California State University, Sacramento21347California State University, Sacramento21347Mississippi State University20649University of South Carolina206	27	Auburn University	252
29The University of Alabama in Huntsville24331University of Illinois at Urbana-Champaign24232University of California, San Diego24032University of Colorado Boulder24034Rensselaer Polytechnic Institute23935University of Houston23636The Ohio State University23436The University of Texas at Dallas23438Kettering University23339California State Polytechnic University, Pomona23141Kennesaw State University of New Jersey, School of Engineering22843San Diego State University, Northridge22244The University of Texas at El Paso22244California State University, Sacramento22147California State University, Sacramento21349Mississippi State University20649University of South Carolina206	28	New Jersey Institute of Technology	250
31University of Illinois at Urbana-Champaign24232University of California, San Diego24032University of Colorado Boulder24034Rensselaer Polytechnic Institute23935University of Houston23636The Ohio State University23436The University of Texas at Dallas23438Kettering University23339Missouri University of Science and Technology23340California State Polytechnic University, Pomona23141Kennesaw State University22841Rutgers, The State University of New Jersey, School of Engineering22843San Diego State University, Northridge22244The University of Texas at El Paso22244The University of Massachusetts Lowell21147California State University, Sacramento21349Mississippi State University20649University of South Carolina206	29	Michigan State University	243
32University of California, San Diego24032University of Colorado Boulder24034Rensselaer Polytechnic Institute23935University of Houston23636The Ohio State University23436The University of Texas at Dallas23438Kettering University23338Missouri University of Science and Technology23340California State Polytechnic University, Pomona23141Kennesaw State University22841Rutgers, The State University of New Jersey, School of Engineering22843San Diego State University, Northridge22244The University of Texas at El Paso22245University of Massachusetts Lowell21447California State University, Sacramento21349Mississippi State University20649University of South Carolina206	29	The University of Alabama in Huntsville	243
32University of Colorado Boulder24034Rensselaer Polytechnic Institute23935University of Houston23636The Ohio State University23436The University of Texas at Dallas23438Kettering University23338Missouri University of Science and Technology23340California State Polytechnic University, Pomona23141Kennesaw State University of New Jersey, School of Engineering22843San Diego State University, Northridge22244California State University, Northridge22245University of Massachusetts Lowell21447California State University, Sacramento21347University of North Carolina at Charlotte21349Mississippi State University20649University of South Carolina206	31	University of Illinois at Urbana-Champaign	242
34Rensselaer Polytechnic Institute23935University of Houston23636The Ohio State University23436The University of Texas at Dallas23438Kettering University23338Missouri University of Science and Technology23340California State Polytechnic University, Pomona23141Kennesaw State University22841Rutgers, The State University of New Jersey, School of Engineering22843San Diego State University, Northridge22244The University of Texas at El Paso22245University of Massachusetts Lowell21447California State University, Sacramento21347University of North Carolina at Charlotte21349Mississippi State University20649University of South Carolina206	32	University of California, San Diego	240
35University of Houston23636The Ohio State University23436The University of Texas at Dallas23438Kettering University23338Missouri University of Science and Technology23340California State Polytechnic University, Pomona23141Kennesaw State University22841Rutgers, The State University of New Jersey, School of Engineering22843San Diego State University, Northridge22244California State University, Northridge22245University of Texas at El Paso22246University of Massachusetts Lowell21447California State University, Sacramento21349Mississippi State University20649University of South Carolina206	32	University of Colorado Boulder	240
36The Ohio State University23436The University of Texas at Dallas23438Kettering University23338Missouri University of Science and Technology23340California State Polytechnic University, Pomona23141Kennesaw State University22841Rutgers, The State University of New Jersey, School of Engineering22843San Diego State University, Northridge22244California State University, Northridge22244The University of Texas at El Paso22246University of Massachusetts Lowell21447California State University, Sacramento21349Mississippi State University20649University of South Carolina206	34	Rensselaer Polytechnic Institute	239
36The University of Texas at Dallas23438Kettering University23338Missouri University of Science and Technology23340California State Polytechnic University, Pomona23141Kennesaw State University22841Rutgers, The State University of New Jersey, School of Engineering22843San Diego State University of New Jersey, School of Engineering22644California State University, Northridge22244The University of Texas at El Paso22246University of Massachusetts Lowell21447California State University, Sacramento21349Mississippi State University20649University of South Carolina206	35	University of Houston	236
38Kettering University23338Missouri University of Science and Technology23340California State Polytechnic University, Pomona23141Kennesaw State University22841Rutgers, The State University of New Jersey, School of Engineering22843San Diego State University22644California State University, Northridge22244The University of Texas at El Paso22246University of Massachusetts Lowell21447California State University, Sacramento21349Mississippi State University20649University of South Carolina206	36	The Ohio State University	234
38Missouri University of Science and Technology23340California State Polytechnic University, Pomona23141Kennesaw State University22841Rutgers, The State University of New Jersey, School of Engineering22843San Diego State University22644California State University, Northridge22244The University of Texas at El Paso22246University of Massachusetts Lowell21447California State University, Sacramento21349Mississippi State University20649University of South Carolina206	36	The University of Texas at Dallas	234
40California State Polytechnic University, Pomona23141Kennesaw State University22841Rutgers, The State University of New Jersey, School of Engineering22843San Diego State University22644California State University, Northridge22244The University of Texas at El Paso22246University of Massachusetts Lowell21447California State University, Sacramento21347University of North Carolina at Charlotte21349Mississippi State University20649University of South Carolina206			
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41Rutgers, The State University of New Jersey, School of Engineering22843San Diego State University22644California State University, Northridge22244The University of Texas at El Paso22246University of Massachusetts Lowell21447California State University, Sacramento21347University of North Carolina at Charlotte21349Mississippi State University20649University of South Carolina206		California State Polytechnic University, Pomona	231
43San Diego State University22644California State University, Northridge22244The University of Texas at El Paso22246University of Massachusetts Lowell21447California State University, Sacramento21347University of North Carolina at Charlotte21349Mississippi State University20649University of South Carolina206	41	Kennesaw State University	228
44California State University, Northridge22244The University of Texas at El Paso22246University of Massachusetts Lowell21447California State University, Sacramento21347University of North Carolina at Charlotte21349Mississippi State University20649University of South Carolina206		Rutgers, The State University of New Jersey, School of Engineering	228
44The University of Texas at El Paso22246University of Massachusetts Lowell21447California State University, Sacramento21347University of North Carolina at Charlotte21349Mississippi State University20649University of South Carolina206			
46University of Massachusetts Lowell21447California State University, Sacramento21347University of North Carolina at Charlotte21349Mississippi State University20649University of South Carolina206			
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49Mississippi State University20649University of South Carolina206		•	
49 University of South Carolina 206			
			206

326 Institutions included

Table 23: Top 50 Institutions by Total Bachelor's Degrees awarded in Electrical Engineering

No	Institutions	Degrees Awarded
1	Arizona State University	320
2	Texas A&M University	246
3	University of Illinois at Urbana-Champaign	238
4	The Pennsylvania State University	195
5	Purdue University	190
6	University of California, San Diego	168
7	North Carolina State University	166
8	Georgia Institute of Technology	164
9	California State Polytechnic University, Pomona	152
10	California Polytechnic State University, San Luis Obispo	147
11	Florida International University	145
11	Virginia Polytechnic Institute and State University	145
13	University of California, Los Angeles	144
14	University of Michigan-Dearborn	136
15	California State University, Long Beach	135
16	San Jose State University	134
16	University of Florida	134
18	Missouri University of Science and Technology	129
19	University of Central Florida	128
20	University of Michigan	127
21	Iowa State University	126
21	The University of Texas at Dallas	126
23	University of Cincinnati	125
24	University of Massachusetts Lowell	119
25	San Diego State University	117
26	University of California, Davis	114
26	University of Maryland, College Park	114
26	Washington State University	114
29	University of Wisconsin-Madison	110
30	University of Puerto Rico, Mayaguez Campus	109
31	University at Buffalo, SUNY	108
32	Rochester Institute of Technology	106
33	Michigan Technological University	105
33	The University of Texas at El Paso	105
33	University of California, Irvine	105
36	Michigan State University	98
37	California State University, Sacramento	97
38	Rensselaer Polytechnic Institute	96
38	The University of Texas at San Antonio	96
40	University of North Carolina at Charlotte	93
41	The University of Texas at Arlington	92
42	California State University, Los Angeles	90
43	Kennesaw State University	89
43	New Jersey Institute of Technology	89
43	Stevens Institute of Technology	89
43	University of Houston	89
47	University of Minnesota -Twin Cities	88
48	Oakland University	87
49	Clemson University	86
50	City College of the City University of New York	84

^{*} 295 Institutions included

1.1.24 Top 50 Institutions by Total Bachelor's Degrees awarded in Computer Engineering

Table 24: Top 50 Institutions by Total Bachelor's Degrees awarded in Computer Engineering

No	Institutions	Degrees Awarded
1	University of Illinois at Urbana-Champaign	422
2	Iowa State University	328
3	Purdue University	234
4	Virginia Polytechnic Institute and State University	175
5	Texas A&M University	160
6	Georgia Institute of Technology	153
7	North Carolina State University	147
8	Northeastern University	143
9	San Jose State University	140
10	University of Central Florida	137
11	University of Maryland, College Park	116
12	University of California, San Diego	114
13	Boston University	112

Table 24: Top 50 Institutions by Total Bachelor's Degrees awarded in Computer Engineering *(continued)*

No	Institutions	Degrees Awarded
14	University of California, Irvine	111
14	University of Florida	111
14	Wichita State University	111
17	University of Michigan	110
18	The Pennsylvania State University	102
19	California Polytechnic State University, San Luis Obispo	100
19	California State Polytechnic University, Pomona	100
21	University of California, Los Angeles	93
21	University of Wisconsin-Madison	93
23	University of Pittsburgh	92
24	California State University, Long Beach	91
25	San Diego State University	85
26	The University of Texas at Dallas	84
27	Arizona State University	82
28	Florida International University	79
28	Santa Clara University	79
30	Clemson University	77
31	Rensselaer Polytechnic Institute	76
31	University of Massachusetts Amherst	76
33	Florida Gulf Coast University	72
33	University of Minnesota -Twin Cities	72
35	Drexel University	70
36	New Jersey Institute of Technology	68
36	University of Maryland, Baltimore County	68
38	Missouri University of Science and Technology	67
38	Rochester Institute of Technology	67
40	California State University, Sacramento	65
40	University of Cincinnati	65
42	University of California, Santa Barbara	62
43	Florida Atlantic University	61
43	University of California, Riverside	61
45	University of Illinois at Chicago	60
46 46 46 49 49	Michigan State University Michigan Technological University University of North Carolina at Charlotte University of Puerto Rico, Mayaguez Campus University of Southern California	59 59 59 55 55 55

* 220 Institutions included

1.1.25 Top 20 Institutions by Total Bachelor's Degrees awarded in Electrical/Computer Engineering

Table 25: Top 20 Institutions by Total Bachelor's Degrees awarded in Electrical/Computer Engineering

No	Institutions	Degrees Awarded
1	University of California, Berkeley	505
2	The University of Texas at Austin	329
3	Rutgers, The State University of New Jersey, School of Engineering	222
4	University of Washington in Seattle	195
5	University of Arizona	188
6	The Ohio State University	177
7	Carnegie Mellon University	164
8	Brigham Young University	148
9	Oregon State University	133
10	Texas Tech University	121
11	New York Institute of Technology	108
12	Massachusetts Institute of Technology	101
13	Cornell University	94
14	Worcester Polytechnic Institute	90
15	Duke University	85
16	The State University of New York at Binghamton	83
17	The University of Iowa	81
18	Colorado School of Mines	80
19	University of Colorado Boulder	73
20	The University of Toledo	72

^{*} 117 Institutions included

1.1.26 Top 20 Institutions by Total Bachelor's Degrees awarded in Computer Science (outside engineering)

Table 26: Top 20 Institutions by Total Bachelor's Degrees awarded in Computer Science (outside engineering)

No	Institutions	Degrees Awarded
1	University of California, Irvine	1,168
2	Georgia Institute of Technology	738
3	University of Maryland, College Park	705
4	University of Wisconsin-Madison	675
5	Rutgers, The State University of New Jersey, School of Engineering	651
6	Purdue University	466
7	New Jersey Institute of Technology	459
8	Northeastern University	457
9	The University of Texas at Austin	438
10	University of Michigan	403
11	University of North Carolina at Chapel Hill	335
12	Southern New Hampshire University	331
13	University of Houston	322
14	University of Massachusetts Amherst	312
15	University of Virginia	293
16	FAMU-FSU College of Engineering	280
17	Rensselaer Polytechnic Institute	262
18	Texas State University	255
19	San Francisco State University	236
20	Carnegie Mellon University	230

^{*} 152 Institutions included

1.1.27 Top 50 Institutions by Total Bachelor's Degrees awarded in Computer Science (inside engineering)

Table 27: Top 50 Institutions by Total Bachelor's Degrees awarded in Computer Science (inside engineering)

No	Institutions	Degrees Awarded
1	Oregon State University	761
2	Arizona State University	735
3	University of Central Florida	687
4 5	The University of Texas at Dallas University of Michigan	649 593
6 7	University of California, San Diego	581 557
8	University of Illinois at Urbana-Champaign The Ohio State University	461
9	University of Washington in Seattle	417
10	University of Minnesota -Twin Cities	368
11	Stony Brook University	366
12	Virginia Polytechnic Institute and State University	364
13	University of Illinois at Chicago	358
14	University of California, Los Angeles	344
15	The Pennsylvania State University	340
16	George Mason University	337
16	University of Southern California	337
18		319
19 20	Florida International University Massachusetts Institute of Technology	313 307
21 22	Auburn University University at Buffalo, SUNY	306 301
22	Texas A&M University	289
24	University of North Texas	282
25	University of Maryland, Baltimore County	281
26	California State University, Sacramento	269
26	University of Utah	269
28	The University of Texas at Arlington	265
29	Stanford University	260
30	University of Colorado Boulder	259
31	California Polytechnic State University, San Luis Obispo	249
32	University of Pennsylvania	246
33	North Carolina State University	244 241
34 35	Michigan State University University of Virginia	241 240
36	University of California, Riverside	215

Table 27: Top 50 Institutions by Total Bachelor's Degrees awarded in Computer Science (inside engineering) *(continued)*

No	Institutions	Degrees Awarded
37	University of Florida	214
38	California State University, Long Beach	211
38	Portland State University	211
40	Washington University in St. Louis	207
41	University of California, Merced	197
42	University of Arizona	196
43	University of Connecticut	189
44	University of South Carolina	182
45	Washington State University	177
46	University of Washington-Tacoma	172
47	Oakland University	170
48	Texas Tech University	167
49	Fu Foundation School of Engineering and Applied Science - Columbia University	162
50	University of California, Santa Barbara	160

^{*} 155 Institutions included

1.1.28 Top 50 Institutions by Total Bachelor's Degrees awarded in Engineering (General)

Table 28: Top 50 Institutions by Total Bachelor's Degrees awarded in Engineering (General)

No	Institutions	Degrees Awarded
1	Dartmouth College	184
2	Arizona State University	149
3	Temple University	104
4 5	East Carolina University	102 76
	James Madison University	
6	Stanford University	73
7	McNeese State University	63 60
8 9	Massachusetts Maritime Academy Harvey Mudd College	58
10	Hope College	51
11		50
12	Geneva College Olivet Nazarene University	48
13	Smith College	47
14	Texas Christian University	45
15	Loyola University Maryland	42
16	North Carolina State University	40
17	Elizabethtown College	38
17	Vanderbilt University	38
19	Wentworth Institute of Technology	35
20	Minnesota State University-Mankato	34
21	Olin College of Engineering	33
22	Western Carolina University	29
23	University of North Carolina at Asheville	28
23	University of Southern Indiana	28
25	Oral Roberts University	27
26	Worcester Polytechnic Institute	26
27	Frostburg State University	24 24
27 29	The University of Tennessee-Martin Swarthmore College	23
23 30	Fort Lewis College	2
31	•	- 20
31 31	The University of Mississippi Trinity College	20
33	Loyola University Chicago	19
34	Brown University	18
34	University of Maryland Eastern Shore	18
36	Oklahoma State University	17
36	Southern Arkansas University Main Campus	17
38	Andrews University	16
39	Marshall University	1:
40	California Polytechnic State University, San Luis Obispo	14
41	Abilene Christian University	13
41	Seattle Pacific University	1:
43	Miami University	12 12
43 43	Northwest Nazarene University Southern Utah University	12
	•	
46	University of Detroit Mercy	1'
47 47	Bob Jones University Boise State University	10 10
47 47	Western Illinois University	10
- 7 50	University of Rochester	i c

127 Institutions included

1.2 ENGINEERING UNDERGRADUATE ENROLLMENT, FALL 2021

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1.2.1 Undergraduate Enrollment by Race, Ethnicity, and Gender

Table 29: Undergraduate Enrollment Awarded by Race, Ethnicity, and Gender 586,589*

Ethnicity	Enrollments
Nonresident Alien Male	35,398
Nonresident Alien Female	10,916
Unknown Male	16,381
Unknown Female	6,088
Hispanic Male	64,626
Hispanic Female	20,835
White Male	223,484
White Female	65,084
Black or Afr. American Male	20,960
Black or Afr. American Female	8,399
Asian American Male	61,595
Asian American Female	25,655
American Indian Male	1,120
American Indian Female	363
Native Hawaiian/Other Pacific Islander Male	724
Native Hawaiian/Other Pacific Islander Female	293
Multiracial Male	17,991
Multiracial Female	6,677
Total Male	442,279
Total Female	144,310

^{*} Total Enrollment includes is for full time students ^{*} Includes 3,222 male and 1,230 female.

Undergraduate Enrollment by Race, Ethnicity, and Gender



1.2.2 Engineering Undergraduate Enrollment by Institutions

Table 30: Top 50 Engineering Undergraduate Enrollment by Institutions

No	Institutions	Enrollment
1	Texas A&M University	15,688
2	Arizona State University	15,053
3	University of Central Florida	11,306
4	Purdue University	11,089
5	University of Illinois at Urbana-Champaign	9,643
6	Virginia Polytechnic Institute and State University	9,361
7	Oregon State University	8,698
8	The Ohio State University	7,787
9	North Carolina State University	7,631
10	Iowa State University	7,221
11	George Mason University	6,935
12	University of Michigan	6,914
13	The University of Texas at Dallas	6,703
14	Campbell University	6,541
15	Florida International University	6,480
16	The Pennsylvania State University	6,394

No	Institutions	Enrollment
17	Georgia Institute of Technology	6,366
18	University of California, San Diego	6,205
19	The University of Texas at Austin	6,074
20	University of California, Berkeley	6,040
21	California State Polytechnic University, Pomona	5,727
22	Michigan State University	5,695
23	University of Colorado Boulder	5,425
24	University of Washington in Seattle	5,411
25	Louisiana State University	5,373
26	University of South Florida	5,179
27	Auburn University	5,153
28	California Polytechnic State University, San Luis Obispo	5,143
29	Colorado School of Mines	5,109
30	The University of Texas at Arlington	5,096
31	University of Puerto Rico, Mayaguez Campus	4,944
32	Missouri University of Science and Technology	4,900
33	University of Florida	4,855
34	The University of Alabama	4,768
35	University of Utah	4,712
36	University of Wisconsin-Madison	4,679
37	University of Cincinnati	4,654
38	Texas Tech University	4,612
39	California State University, Northridge	4,418
40	Kennesaw State University	4,409
41	University of Illinois at Chicago	4,385
42	Clemson University	4,305
43	San Jose State University	4,279
43	University at Buffalo, SUNY	4,279
45	California State University, Sacramento	4,263
46	Washington State University	4,050
47	University of Maryland, College Park	4,028
48	University of Maryland, Baltimore County	4,022
49	Mississippi State University	3,974
50	Northeastern University	3,958

* Enrollment is full time plus part time students.

* Some Institutions do not permit formal enrollment in their engineering colleges until the second or third year.

1.2.3 Undergraduate Enrollment by Engineering Discipline

Discipline Name	Enrollments
Mechanical	124,130
Computer Sci. (inside Eng.)	103,088
Other	53,418
Civil	46,763
Electrical	44,096
Computer Sci. (outside Engr.)	42,206
Biomedical	33,326
Chemical	33,164
Computer	31,533
Engineering (General)	26,004
Aerospace	22,805
Industrial/Manufacturing/Systems	20,186
Electrical/Computer	14,715
Envr. Eng	6,079
Civil/Environmental	5,795
Metallurgical and Matrls.	5,415
Biological and Agricultural	4,027
Architectural	3,320
Engr. Science and Engr. Physics	2,432
Petroleum	2,392
Engineering Management	1,859
Nuclear	1,440
Mining	602

Table 31: Undergraduate Enrollment by Engineering Discipline: 586,589

^{*} Total does not include Computer Science (outside engineering)

Enrollment is for full time Bachelor's degree candidates in engineering.



1.2.4 Undergraduate Enrollment by Engineering Discipline:(Full time and Part time)

Table 32: Undergraduate Enrollment by Engineering Discipline:(Full time and Part time)

Discipline Name	Full Time	Part Time
Aerospace	22,805	1,379
Architectural	3,320	179
Biological and Agricultural	4,027	166
Biomedical	33,326	1,482
Chemical	33,164	2,300
Civil	46,763	5,095
Civil/Environmental	5,795	510
Computer	31,533	3,372
Computer Sci. (inside Eng.)	103,088	17,010
Electrical	44,096	8,167
Electrical/Computer	14,715	1,017
Engineering (General)	26,004	2,576
Engineering Management	1,859	141
Engr. Science and Engr. Physics	2,432	138
Envr. Eng	6,079	428
Industrial/Manufacturing/Systems	20,186	2,066
Mechanical	124,130	14,275
Metallurgical and Matrls.	5,415	307
Mining	602	57
Nuclear	1,440	99
Other	53,418	4,746
Petroleum	2,392	237

1.2.5 Undergraduate Enrollment by Gender

Table 33: Undergraduate Enrollment by Gender

Gender	Percentage
Female	24.6%
Male	75.4%







Table 34	Undergraduate	Enrollment by	/ Race	and	Ethnicitv*
	Undergraduate	LINUMIENCO	/ INduc	anu	

Ethnicity	Percentage
Black or Afr. American	5.4%
Hispanic	15.8%
Other	5%
Asian American	16.1%
White	53.4%
Unknown	4.2%

Undergraduate Enrollment by Race and Ethnicity



1.2.7 Undergraduate Enrollment by Residency

Table 35: Undergraduate Enrollment by Residency

Nationality	Percentage
Foreign	92.1%
Domestic	7.9%

Undergraduate Enrollment by Residency


2 ENGINEERING MASTER'S

2.1 ENGINEERING MASTER'S DEGREE

2.1.1 Master's Degrees Awarded by Engineering Discipline

Table 36: Master's Degrees	by discipline: 63,319
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Discipline Name	Degrees Awarded
Computer Sci. (inside Eng.)	13,132
Other	8,002
Mechanical	7,739
Electrical/Computer	5,120
Computer Sci. (outside Engr.)	4,820
Electrical	4,710
Industrial/Manufacturing/Systems	4,394
Civil	4,379
Engineering Management	2,836
Biomedical	2,823
Computer	2,339
Chemical	1,624
Aerospace	1,547
Metallurgical and Matrls.	1,147
Civil/Environmental	1,024
Engineering (General)	972
Envr. Eng	575
Petroleum	246
Nuclear	216
Engr. Science and Engr. Physics	178
Biological and Agricultural	150
Architectural	108
Mining	58

Total does not include computer science (outside engineering).





2.1.2 Total Master's Degrees Awarded to Underrepresented Minorities by Engineering Discipline

Table 37: Master's Degrees Awarded to Underrepresented Minorities by Engineering Discipline: 4,611

Discipline Name	Degrees Awarded
Other	678
Mechanical	644
Computer Sci. (inside Eng.)	516
Civil	507
Industrial/Manufacturing/Systems	413
Electrical	280
Biomedical	279
Engineering Management	251
Electrical/Computer	226
Computer Sci. (outside Engr.)	216
Engineering (General)	168
Aerospace	133
Chemical	113
Computer	98
Civil/Environmental	96
Metallurgical and Matrls.	79
Envr. Eng	55
Nuclear	30
Petroleum	16
Biological and Agricultural	9
Engr. Science and Engr. Physics	9
Architectural	6
Mining	5

Total does not include computer science (outside engineering).

2.1.3 Percentage of Master's Degrees Awarded to Underrepresented Minorities by Discipline

Table 38: Percentage of Master's Degrees Awarded to Underrepresented Minorities by Discipline 7 % of Total

Discipline Name	Percent Women
Engineering (General)	17.3%
Nuclear	13.9%
Civil	11.6%
Biomedical	9.9%
Envr. Eng	9.6%
Civil/Environmental	9.4%
Industrial/Manufacturing/Systems	9.4%
Engineering Management	8.9%
Aerospace	8.6%
Mining	8.6%
Other	8.5%
Mechanical	8.3%
Chemical	7%
Metallurgical and Matrls.	6.9%
Petroleum	6.5%
Biological and Agricultural	6%
Electrical	5.9%
Architectural	5.6%
Engr. Science and Engr. Physics	5.1%
Computer Sci. (outside Engr.)	4.5%
Electrical/Computer	4.4%
Computer	4.2%
Computer Sci. (inside Eng.)	3.9%

2.1.4 Percentage of Master's Degrees Awarded to Women by Discipline

Table 39: Percentage of Master's Degrees Awarded to Women by Discipline 28.9 % of Total

Discipline Name	Percent Women
Envr. Eng	49.4%
Biomedical	48.7%
Civil/Environmental	44.6%
Architectural	40.7%
Biological and Agricultural	37.3%
Other	35.6%
Chemical	35.2%
Industrial/Manufacturing/Systems	31.3%
Metallurgical and Matrls.	31.3%
Engineering Management	31%

Table 39: Percentage of Master's Degrees Awarded to Women by Discipline 28.9 % of Total *(continued)*

Discipline Name	Percent Women
Civil	30.3%
Computer Sci. (outside Engr.)	29.8%
Computer Sci. (inside Eng.)	28.3%
Computer	25.6%
Electrical/Computer	24.6%
Engineering (General)	23.7%
Petroleum	23.6%
Electrical	22.9%
Engr. Science and Engr. Physics	22.5%
Mining	20.7%
Nuclear	19.4%
Mechanical	18.3%
Aerospace	17.1%

Percentage of Master's Degrees Awarded to Women by Discipline



2.1.5 Master's Degrees Awarded by Gender

Table 40: Master's Degrees Awarded by Gender

Gender	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Female	23.00%	22.60%	22.60%	23.10%	23.90%	24.20%	25.40%	25.70%	26.70%	27.30%	28.10%	28.80%
Male	77.00%	77.40%	81.60%	76.90%	76.10%	75.80%	74.60%	74.30%	73.30%	72.70%	71.90%	71.20%



Master's Degrees Awarded by Gender

Ethnicity	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Black or Afr. American	4.7%	5.1%	4.9%	4.7%	4.7%	4.4%	4.7%	4.7%	4.8%	4.8%	5.0%	5.0%
Hispanic	5.3%	6.0%	6.3%	7.3%	7.6%	7.7%	8.3%	8.5%	8.8%	9.2%	9.4%	9.4%
Other	17.4%	1.4%	1.5%	2.0%	2.2%	2.6%	3.0%	3.1%	3.8%	3.9%	3.6%	3.6%
Asian American	15.1%	14.9%	15.5%	14.5%	15.0%	14.5%	15.1%	15.1%	15.8%	16.3%	15.8%	16.8%
White	57.5%	60.9%	58.2%	59.7%	59.5%	60.2%	59.5%	60.1%	58.2%	55.4%	55.2%	54.5%
Unknown	0%	11.7%	13.6%	11.8%	11.0%	10.6%	9.4%	8.4%	8.6%	10.4%	10.9%	10.7%

Table 41: Master's Degrees Awarded by Ethnicity

*Data on ethnicity does not include foreign nationals. American Indian/Alaska Native (0.2%), Native Hawaiian/Other Pacific Islander(0.1%) and Multiracial (3.2%) are combined under Other.



2.1.7 Master's Degrees Awarded by Residency

Table 42: Master's Degrees Awarded by Residency

Nationality	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Foreign	46.1%	44.4%	43.3%	45.3%	47.5%	52.6%	58.1%	59.2%	57.1%	53.6%	53.2%	51.7%
Domestic	53.9%	55.6%	56.7%	54.7%	52.5%	47.4%	41.9%	40.8%	42.9%	46.4%	46.8%	48.3%





Table 43: Master's Degrees	Awarded by Race,	, Ethnicity, and	Gender 63,319*

Ethnicity	Degrees Awarded
Nonresident Alien Male	22,624
Nonresident Alien Female	9,449
Unknown Male	2,180
Unknown Female	1,088
Hispanic Male	2,124
Hispanic Female	825
White Male	12,723
White Female	4,302
Black or Afr. American Male	1,036
Black or Afr. American Female	517
Asian American Male	3,492
Asian American Female	1,738
American Indian Male	57
American Indian Female	19
Native Hawaiian/Other Pacific Islander Male	19
Native Hawaiian/Other Pacific Islander Female	12
Multiracial Male	669
Multiracial Female	340
Total Male	44,924
Total Female	18,290

^{*} Total degree includes 2 total Non binary graduates and 104 total Other Gender graduates.

Includes 44 male and 16 female graduates from Puerto Rico.

Master's Degrees Awarded by Race, Ethnicity, and Gender



2.1.9 Top 50 Institutions Awarding Engineering Master's Degrees

Table 44: Top 50 Institutions Awarding Engineering Master's Degrees

No	Institutions	Degrees Awarded
1	Northeastern University	2,715
2	University of Southern California	2,623
3	Fu Foundation School of Engineering and Applied Science - Columbia University	1,760
4	Carnegie Mellon University	1,708
5	Arizona State University	1,604
6	University of Michigan	1,292
7	NYU Tandon School of Engineering	1,248
8	University of Illinois at Urbana-Champaign	1,211
9	University of California, San Diego	1,183
10	Stanford University	1,097
11	North Carolina State University	1,078
12	San Jose State University	1,027
13	Cornell University	996
14	University of Florida	979
15	Stevens Institute of Technology	933

No	Institutions	Degrees Awarded
16	University of Washington in Seattle	905
17	The University of Texas at Arlington	900
18	Texas A&M University	889
19	Georgia Institute of Technology	872
20	University at Buffalo, SUNY	859
21	University of Pennsylvania	816
22	Massachusetts Institute of Technology	795
23	Northwestern University	778
24	New Jersey Institute of Technology	769
25	The University of Texas at Dallas	750
26	Purdue University	683
27	University of California, Berkeley	677
28	The Johns Hopkins University	652
29	University of California, Los Angeles	632
30	The George Washington University	626
31	Stony Brook University	606
32	University of Colorado Boulder	604
33	George Mason University	593
34	Illinois Institute of Technology	528
35	The University of Texas at Austin	510
36	University of Wisconsin-Madison	503
37	Clemson University	502
38	University of Maryland, College Park	495
39	University of California, Irvine	489
40	Virginia Polytechnic Institute and State University	479
41	Washington University in St. Louis	478
42	University of Maryland, Baltimore County	471
43	The State University of New York at Binghamton	459
44	Syracuse University	456
45	University of Michigan-Dearborn	452
45	Worcester Polytechnic Institute	452
47	Duke University	440
48	University of Minnesota -Twin Cities	437
49	Boston University	430
50	The Ohio State University	429

2.1.10 Top 20 Institutions by Total Master's Degrees awarded to Underrepresented Minorities

Table 45: Top 20 Institutions by Total Master's Degrees awarded to Underrepresented Minorities

No	Institutions	Degrade Awarded
No	Institutions	Degrees Awarded
1	The University of Texas at El Paso	146
2	Arizona State University	118
3	Florida International University	101
3	New Jersey Institute of Technology	101
5	Stanford University	95
5	University of Central Florida	95
7	Cornell University	83
8	University of Southern California	76
9	Texas A&M University	74
10	University of Florida	72
11	The University of Texas Rio Grande Valley	69
12	Southern Methodist University	68
13	Carnegie Mellon University	67
14	University of Maryland, Baltimore County	65
15	University of Washington in Seattle	62
16	Massachusetts Institute of Technology	61
17	University of Puerto Rico, Mayaguez Campus	60
18	The University of Texas at San Antonio	59
19	The George Washington University	56
20	University of California, San Diego	55

^{*} 404 Institutions included

2.1.11 Top 50 Institutions by Percentage of Master's Degrees awarded to Underrepresented Minorities

Table 46: Top 50 Institutions by Percentage of Master's Degrees awarded to Underrepresented Minorities

2 Mo	iversity of Puerto Rico, Mayaguez Campus Irgan State University Ibama A & M University	100% 74.3%
	č	
3 Ala	hama Δ & M I Iniversity	70 50/
		73.5%
4 Ho	ward University	71.4%
5 The	e University of Texas Rio Grande Valley	67.6%
6 Flo	rida Agricultural and Mechanical University	66.7%
7 The	e University of Texas at El Paso	65.2%
8 Un	iversity of the District of Columbia	60%

Table 46: Top 50 Institutions by Percentage of Master's Degrees
awarded to Underrepresented Minorities (continued)

No	Institutions	Percent Underrepresented Minorities
9	Virginia State University	55.8%
10	Southern University and A & M College	51.5%
11	Capitol Technology University	50%
11	Jackson State University	50%
11	United States Merchant Marine Academy	50%
11	University of South Dakota	50%
15	Prairie View A & M University	47.8%
16	Florida International University	46.3%
17	Buffalo State	40%
17	Norwich University	40%
19	North Carolina A&T State University	38.2%
20	The University of Texas at San Antonio	36%
21	Florida Polytechnic University	33.3%
21	Gonzaga University	33.3%
21	Tuskegee University	33.3%
24	New Mexico State University	31.8%
25	Princeton University	30.8%
26	California State Polytechnic University, Pomona	30.3%
27	University of San Diego	30%
28	New Mexico Institute of Mining and Technology	29%
29	Kennesaw State University	29%
30	California State University, Los Angeles	28.8%
31	University of Miami	27.9%
32	Tennessee State University	26.1%
33	Southern Methodist University	26%
34	East Carolina University	25%
35	Loyola Marymount University	24.6%
36	City College of the City University of New York	24.2%
37	The University of New Mexico	23.3%
38	Embry-Riddle Aeronautical University-Worldwide	22.8%
39	Christian Brothers University	22.7%
40	University of Central Florida	22.5%
41	Oklahoma Christian University	22.4%
42	California State University, Long Beach	21.2%
43	The Citadel	20%
43	University of Southern Mississippi	20%
43	Widener University	20%
46	FAMU-FSU College of Engineering	18.4%
47	California State University, Northridge	18.3%
48	Florida Atlantic University	18.2%
49	Manhattan College	18%
50	San Diego State University	17%
* 404	4 Institutions included	

404 Institutions included

2.1.12 Top 20 Institutions Awarding Highest Percentage of Master's Degrees to Women

Table 47: Top 20 Highest Percentage of Master's Degrees to Women

No	Institutions	Percent Women
1	University of Portland	75%
2	SUNY College of Environmental Science and Forestry	71.4%
3	Wentworth Institute of Technology	60%
4	Alabama A & M University	58.8%
5	California State University-East Bay	57.6%
6	Virginia State University	53.5%
7	Texas State University	51.5%
8	East Carolina University	50%
8	Lipscomb University	50%
8	Mississippi College	50%
8	State University of New York at New Paltz	50%
8	Thomas Jefferson University	50%
8	University of Georgia	50%
8	University of South Dakota	50%
8	University of Washington-Tacoma	50%
16	Eastern Michigan University	48.9%
17	Florida Agricultural and Mechanical University	46.7%
18	Harvard University	46.2%
19	Seattle University	45%
20	Brown University	44.3%

^{*} 404 included

2.1.13 Top 20 Institutions by Total Master's Degrees awarded in Engineering (General)

Table 48: Top 20 Institutions by Total Master's Degrees awarded in Engineering (General)

No	Institutions	Degrees Awarded
1	University at Buffalo, SUNY	116
2	Arizona State University	108
3	University of Arkansas	63
4	Oklahoma Christian University	60
5	San Jose State University	51
6	University of Massachusetts Lowell	40
7	Lamar University	39
8	University of the Pacific	34
9	Stevens Institute of Technology	32
10	Morgan State University	31
10	Texas State University	31
12	San Francisco State University	29
12	University of Arizona	29
14	Texas Tech University	24
15	Purdue University Fort Wayne	22
16	The University of Tennessee-Chattanooga	21
17	Case Western Reserve University	18
18	California State University-Fresno	17
19	Marshall University	16
19	Prairie View A & M University	16

* 127 Institutions included

2.2 ENGINEERING MASTER'S ENROLLMENT

2.2.1 Master's Enrollment by Race, Ethnicity, and Gender

Table 49: Master's Enrollment Awarded by Race, Ethnicity, and Gender 89,636*

Ethnicity	Enrollments
Nonresident Alien Male	37,608
Nonresident Alien Female	15,985
Unknown Male	2,899
Unknown Female	1,604
Hispanic Male	2,751
Hispanic Female	1,097
White Male	13,279
White Female	4,642
Black or Afr. American Male	1,070
Black or Afr. American Female	544
Asian American Male	4,302
Asian American Female	2,196
American Indian Male	89
American Indian Female	48
Native Hawaiian/Other Pacific Islander Male	58
Native Hawaiian/Other Pacific Islander Female	15
Multiracial Male	1,031
Multiracial Female	418
Total Male	63,087
Total Female	26,549

* Total Enrollment includes is for full time students

* Includes 102 male and 39 female.





2.2.2 Top 50 Institutions with Highest Graduate Enrollment

Table 50: Top 50 Institutions with Highest Graduate Enrollment*

No	Institutions	Enrollment
1	University of Southern California	6,304
2	Arizona State University	5,484
3	University of Illinois at Urbana-Champaign	5,413
4	Fu Foundation School of Engineering and Applied Science - Columbia University	4,963
5	Northeastern University	4,584
6	NYU Tandon School of Engineering	4,576
7	Georgia Institute of Technology	4,315
8	University of Pennsylvania	3,788
9	University of Michigan	3,776
10	Texas A&M University	3,704
11	Stanford University	3,479
12	Purdue University	3,306
13	Massachusetts Institute of Technology	3,287
14	University of California, San Diego	3,286
15	North Carolina State University	3,227
16	Carnegie Mellon University	2,911
17	University of Washington in Seattle	2,845
18	University of California, Berkeley	2,844
19	University of Florida	2,774
20	Virginia Polytechnic Institute and State University	2,665
21	The University of Texas at Arlington	2,624
22	University at Buffalo, SUNY	2,581
23	University of Colorado Boulder	2,458
24	Stevens Institute of Technology	2,438
25	The Pennsylvania State University	2,427
26	Cornell University	2,402
27	The Johns Hopkins University	2,385
28	Northwestern University	2,259
29	The University of Texas at Austin	2,174
30	George Mason University	2,071
31	The University of Texas at Dallas	2,062
32	University of Central Florida	1,970
33	San Jose State University	1,820
34	The George Washington University	1,756
35	University of Minnesota -Twin Cities	1,749
36	The Ohio State University	1,723
37	University of Wisconsin-Madison	1,582
38	Duke University	1,546
39	Washington University in St. Louis	1,540
40	University of Arizona	1,483
41	University of Maryland, Baltimore County	1,477
42	University of North Texas	1,464
43	University of Maryland, College Park	1,453
44	Stony Brook University	1,440
45	Colorado School of Mines	1,408
46	University of Utah	1,383
47	William Marsh Rice University	1,360

Table 50: Top 50 Institutions with Highest Graduate Enrollment* *(continued)*

No	Institutions	Enrollment
48	University of Cincinnati	1,354
49	Clemson University	1,352
50	University of California, Davis	1,309

^{*} 50 Institutions reported.Includes both part time and full time.

2.2.3 Master's Enrollment by Engineering Discipline:(Full time and Part time)

Table 51: Master's Enrollment by Engineering Discipline:(Full time and Part time)

Discipline Name	Full Time	Part Time
Aerospace	2,489	1,415
Architectural	159	24
Biological and Agricultural	281	196
Biomedical	3,819	1,042
Chemical	2,106	671
Civil	5,487	3,113
Civil/Environmental	1,394	519
Computer	3,447	1,042
Computer Sci. (inside Eng.)	23,121	10,598
Electrical	6,404	3,315
Electrical/Computer	6,575	2,260
Engineering (General)	1,243	976
Engineering Management	3,675	3,601
Engr. Science and Engr. Physics	181	90
Envr. Eng	830	308
Industrial/Manufacturing/Systems	4,896	3,598
Mechanical	10,076	4,986
Metallurgical and Matrls.	1,326	529
Mining	97	46
Nuclear	364	130
Other	11,384	5,969
Petroleum	282	125

2.2.4 Master's Enrollment by Gender

Gender	Percentage
Female	29.6%
Male	70.4%



Table 53: Master's Enrollment by Race and Ethnicity*

Ethnicity	Percentage
Black or Afr. American	4.5%
Hispanic	10.7%
Other	4.6%
Asian American	18%
White	49.7%
Unknown	12.5%



2.2.6 Master's Enrollment by Residency

Table 54: Master's Enrollment by Residency

Nationality	Percentage
Foreign	59.8%
Domestic	40.2%



Master's Enrollment by Residency

3 ENGINEERING DOCTORAL

3.1 ENGINEERING DOCTORAL DEGREES

3.1.1 Doctoral Degrees Awarded by Engineering Discipline

Table 55: Doctoral Degrees by discipline:	12,403
	12,100

Discipline Name	Degrees Awarded
Mechanical	1,722
Electrical/Computer	1,365
Computer Sci. (inside Eng.)	1,311
Chemical	1,118
Electrical	1,058
Biomedical	1,050
Other	892
Civil	778
Metallurgical and Matrls.	627
Industrial/Manufacturing/Systems	583
Computer Sci. (outside Engr.)	551
Aerospace	412
Civil/Environmental	342
Computer	239
Nuclear	170
Engineering (General)	147
Envr. Eng	139
Petroleum	124
Biological and Agricultural	117
Engr. Science and Engr. Physics	91
Engr. Management	83
Mining	27
Architectural	8

^{*} Total does not include computer science (outside engineering).



Doctoral Degrees Awarded by Engineering Discipline

3.1.2 Total Doctoral Degrees Awarded to Underrepresented Minorities by Engineering Discipline

Table 56: Doctoral Degrees Awarded to Underrepresented Minorities by Engineering Discipline: 611

Discipline Name	Degrees Awarded
Biomedical	86
Mechanical	81
Chemical	58
Other	50
Electrical/Computer	48
Metallurgical and Matrls.	46
Computer Sci. (inside Eng.)	44
Electrical	35
Civil	31
Aerospace	29
Industrial/Manufacturing/Systems	27
Computer Sci. (outside Engr.)	17
Civil/Environmental	15
Engineering (General)	14
Engr. Management	14
Computer	8
Engr. Science and Engr. Physics	7
Envr. Eng	6
Nuclear	5
Biological and Agricultural	4
Petroleum	2
Mining	1
Architectural	0

Total does not include computer science (outside engineering).

3.1.3 Percentage of Doctoral Degrees Awarded to Underrepresented Minorities by Discipline

Table 57: Percentage of Doctoral Degrees Awarded to Underrepresented Minorities by Discipline 4.8 % of Total

Discipline Name	Percent Women
Engr. Management	16.9%
Engineering (General)	9.5%
Biomedical	8.2%
Engr. Science and Engr. Physics	7.7%
Metallurgical and Matrls.	7.3%
Aerospace	7%
Other	5.6%
Chemical	5.2%
Mechanical	4.7%
Industrial/Manufacturing/Systems	4.6%
Civil/Environmental	4.4%
Envr. Eng	4.3%
Civil	4%
Mining	3.7%
Electrical/Computer	3.5%
Biological and Agricultural	3.4%
Computer Sci. (inside Eng.)	3.4%
Computer	3.3%
Electrical	3.3%
Computer Sci. (outside Engr.)	3.1%
Nuclear	2.9%
Petroleum	1.6%
Architectural	0%

3.1.4 Percentage of Doctoral Degrees Awarded to Women by Discipline

Table 58: Percentage of Doctoral Degrees Awarded to Women by Discipline 25.5 % of Total

Discipling Name	Percent Women
Discipline Name	Percent women
Envr. Eng	53.2%
Biomedical	41%
Civil/Environmental	33.3%
Chemical	32.6%
Metallurgical and Matrls.	31.9%
Industrial/Manufacturing/Systems	30.5%
Biological and Agricultural	29.9%
Civil	29.4%
Other	29.1%
Engineering (General)	25.9%
Mining	25.9%
Computer Sci. (outside Engr.)	23.6%
Computer Sci. (inside Eng.)	22.2%
Computer	20.9%
Engr. Science and Engr. Physics	19.8%
Mechanical	19.2%
Electrical	18.4%
Electrical/Computer	17.7%
Engr. Management	16.9%
Petroleum	16.9%
Aerospace	14.3%
Nuclear	13.5%
Architectural	12.5%

Percentage of Doctoral Degrees Awarded to Women by Discipline



3.1.5 Doctoral Degrees Awarded by Gender

Table 59: Doctoral Degrees Awarded by Gender

Gender	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Female	21.20%	22.90%	21.80%	22.20%	22.40%	22.20%	23.30%	23.50%	23.60%	24.10%	23.90%	25.90%
Male	78.80%	77.10%	78.20%	77.80%	77.60%	77.80%	76.70%	76.50%	76.40%	75.90%	76.10%	74.10%







Table 60: Doctoral Degrees Awarded by Ethnicity

Ethnicity	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Black or Afr. American	4.4%	3.5%	4.1%	4.1%	3.6%	3.2%	4.4%	3.8%	4.2%	3.9%	3.6%	3.9%
Hispanic	5.2%	4.2%	4.1%	4.7%	5.1%	6.1%	5.7%	6.3%	6.0%	6.1%	6.9%	7.5%
Other	1.0%	1.6%	1.7%	1.7%	1.6%	2.2%	3.1%	2.9%	2.9%	2.8%	3.6%	3.6%
Asian American	14.0%	15.1%	14.1%	13.5%	10.4%	14.1%	14.9%	14.8%	13.9%	15.3%	15.3%	13.9%
White	65.7%	60.3%	61.1%	61.8%	65.1%	62.9%	62.0%	62.2%	62.0%	61.1%	61%	58.4%
Unknown	9.7%	15.3%	14.9%	14.2%	14.2%	11.5%	9.9%	10.0%	11.1%	10.8%	9.6%	12.6%

Doctoral Degrees Awarded by Race and Ethnicity



Table 61: Doctoral Degrees Awarded by Residency

Nationality	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Foreign	54.2%	54.2%	53.3%	55.1%	54.8%	54.7%	54.8%	55.7%	56.3%	56.5%	58.8%	58.5%
Domestic	45.8%	45.8%	46.7%	44.9%	45.2%	45.3%	45.2%	44.3%	43.7%	43.5%	41.2%	41.5%



Doctoral Degrees Awarded by Residency

3.1.8 Doctoral Degrees Awarded by Race, Ethnicity, and Gender

Table 62: Doctoral Degrees	Awarded by Race	, Ethnicity, and	Gender 12,403*

Ethnicity	Degrees
Nonresident Alien Male	5,523
Nonresident Alien Female	1,697
Unknown Male	438
Unknown Female	140
Hispanic Male	274
Hispanic Female	117
White Male	2,197
White Female	826
Black or Afr. American Male	133
Black or Afr. American Female	70
Asian American Male	470
Asian American Female	250
American Indian Male	8
American Indian Female	4
Native Hawaiian/Other Pacific Islander Male	3
Native Hawaiian/Other Pacific Islander Female	2
Multiracial Male	102
Multiracial Female	66
Total Male	9,148
Total Female	3,172

^{*} Total degree includes 0 total Non binary graduates and 84 total Other Gender graduates. ^{*} Includes 5 male and5 female graduates from Puerto Rico.





3.1.9 Top 50 Institutions Awarding Engineering Doctoral Degrees



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grees

No	Institutions	Degrees Awarded
1	Georgia Institute of Technology	454
2	Purdue University	391
3	Stanford University	339
4	University of Illinois at Urbana-Champaign	315
5	Massachusetts Institute of Technology	301
6	Texas A&M University	285
7	University of Michigan	275
8	Carnegie Mellon University	240
9	The University of Texas at Austin	237
10	University of California, Berkeley	231
11	Virginia Polytechnic Institute and State University	206
12	North Carolina State University	200
13	University of California, San Diego	191
14	The Pennsylvania State University	184
15	University of Florida	180
16	Arizona State University	177
17	The Ohio State University	176
18	University of Minnesota -Twin Cities	168
19	Cornell University	164
20	University of California, Los Angeles	163
21	University of Washington in Seattle	159
22	Northwestern University	144
23	University of Maryland, College Park	143
24	University of Wisconsin-Madison	140
25	University of Colorado Boulder	138
25	University of Southern California	138
27	University of Central Florida	134
28	The Johns Hopkins University	129
29	University of California, Irvine	125
30	Fu Foundation School of Engineering and Applied Science - Columbia University	117
31	Iowa State University	116
32	Northeastern University	115
33	University of Tennessee, Knoxville	111
34	The University of Texas at Arlington	110
35	Missouri University of Science and Technology	109
36	William Marsh Rice University	108
37	Stony Brook University	107
38	Michigan State University	105
38	Rutgers, The State University of New Jersey, School of Engineering	105
38	University of Arizona	105
41	University of Virginia	104
41	Washington State University	104

Table 63: Top 50 Institutions Awarding Engineering Doctoral Degrees *(continued)*

No	Institutions	Degrees Awarded
43	University of Houston	103
44	University of Utah	101
45	The University of Texas at Dallas	97
46	Duke University	95
47	The George Washington University	94
48	University of California, Santa Barbara	93
49	University at Buffalo, SUNY	91
50	University of California, Davis	89

404 Institutions reported. Includes both part time and full time

3.1.10 Top 20 Institutions by Total Doctoral Degrees awarded to Underrepresented Minorities

Table 64: Top 20 Institutions by Total Doctoral Degrees awarded to Underrepresented Minorities

No	Institutions	Degrees Awarded
1	University of Michigan	26
2	Stanford University	20
2	University of California, Berkeley	20
4	Georgia Institute of Technology	18
5	University of Florida	17
6	Massachusetts Institute of Technology	16
6	University of California, San Diego	16
8	Northwestern University	14
8	The University of Texas at Austin	14
10	The George Washington University	13
10	University of Illinois at Urbana-Champaign	13
12	Texas A&M University	12
12	University of Central Florida	12
12	University of Colorado Boulder	12
15	Cornell University	11
15	The University of Texas at El Paso	11
17	University of Minnesota -Twin Cities	10
17	University of Puerto Rico, Mayaguez Campus	10
19	Carnegie Mellon University	9
19	The Johns Hopkins University	9
* 404	1 Institutions included	

3.1.11 Top 50 Institutions by Percentage of Doctoral Degrees awarded to Underrepresented Minorities

Table 65: Top 50 Institutions by Percentage of Doctoral Degrees awarded to Underrepresented Minorities

No	Institutions	Percent Underrepresented Minorities
1	Capitol Technology University	100%
1	Tuskegee University	100%
1	University of Puerto Rico, Mayaguez Campus	100%
4	Florida Agricultural and Mechanical University	75%
5	Jackson State University	60%
6	Indiana University-Purdue University Indianapolis	33.3%
7	Morgan State University	30.8%
8	The University of Texas at El Paso	28.9%
9	Howard University	25%
10	The University of New Mexico	24.3%
11	North Carolina A&T State University	24%
12	University of Miami	21.9%
13	Saint Louis University	20%
13	University of Southern Mississippi	20%
15	University of South Alabama	17.1%
16	The University of Memphis	15.8%
17	Temple University	14.3%
17	University of Alabama at Birmingham	14.3%
17	University of Dayton	14.3%
20	The George Washington University	13.8%
21	University of Colorado Denver	13.3%
22	New Mexico State University	13.2%
23	The University of Mississippi	12.5%
23	The University of Tulsa	12.5%
25	Louisiana Tech University	11.8%
26	University of South Florida	11.3%
27	Baylor University	11.1%
27	Florida Atlantic University	11.1%
29	Florida International University	10.5%

Table 65: Top 50 Institutions by Percentage of Doctoral Degrees
awarded to Underrepresented Minorities (continued)

No	Institutions	Percent Underrepresented Minorities
30	University of Louisiana at Lafayette	10%
31	Northwestern University	9.7%
32	University of Michigan	9.5%
33	University of Florida	9.4%
34	Colorado State University	9.4%
35	Rochester Institute of Technology	9.4%
36	The University of Texas at San Antonio	9.3%
36	Wayne State University	9.3%
38	University of Nevada, Las Vegas	9.1%
39	University of Central Florida	9%
40	University of Arkansas	8.9%
41	City College of the City University of New York	8.7%
41	University of Colorado Boulder	8.7%
41	Virginia Commonwealth University	8.7%
44	University of California, Berkeley	8.7%
45	University of California, San Diego	8.4%
46	University of Arkansas at Little Rock	8.3%
46	University of Bridgeport	8.3%
46	University of North Texas	8.3%
49	University of Illinois at Chicago	7.9%
50	University of California, Riverside	7.8%

404 Institutions included

3.1.12 Top 20 Institutions Awarding Highest Percentage of Doctoral Degrees to Women

Table 66: Top 20 Highest Percentage of Doctoral Degrees to Women

No	Institutions	Percent Women
1	Capitol Technology University	100%
1	SUNY Polytechnic Institute	100%
3	Northern Arizona University	75%
4	Temple University	71.4%
5	Indiana University-Purdue University Indianapolis	66.7%
5	San Diego State University	66.7%
5	SUNY College of Environmental Science and Forestry	66.7%
8	Jackson State University	60%
8	Saint Louis University	60%
10	Embry Riddle Aeronautical University-Daytona Beach	54.5%
11	Alfred University	50%
11	University of Alaska Fairbanks, College of Engineering and Mines	50%
11	University of Massachusetts Dartmouth	50%
11	University of Puerto Rico, Mayaguez Campus	50%
15	City College of the City University of New York	43.5%
16	Louisiana Tech University	41.2%
17	University of Massachusetts Lowell	40.5%
18	Texas State University	40%
18	University of Colorado Denver	40%
18	University of Southern Mississippi	40%

^{*} 404 Institutions included

3.1.13 Top 50 Institutions Awarding Doctoral Degrees to Foreign Nationals

Table 67: Top 50 Institutions Awarding Doctoral Degrees to Foreign Nationals

No	Institutions	Degrees Awarded
1	Georgia Institute of Technology	279
2	Purdue University	272
3	Texas A&M University	209
4	University of Illinois at Urbana-Champaign	195
5	Massachusetts Institute of Technology	157
6	Stanford University	147
7	The University of Texas at Austin	143
8	Carnegie Mellon University	135
9	University of Michigan	131
10	Virginia Polytechnic Institute and State University	129
11	Arizona State University	126
12	North Carolina State University	120
13	The Pennsylvania State University	119
13	University of California, Los Angeles	119
13	University of California, San Diego	119
16	The Ohio State University	117
17	University of Florida	104
17	University of Minnesota -Twin Cities	104
19	University of California, Berkeley	94
20	The University of Texas at Arlington	92

Table 67:	Top 50 Institutions Awarding Doctoral De	egrees to For-
eign Natio	nals <i>(continued)</i>	

No	Institutions	Degrees Awarded
21	University of Southern California	88
22	University of Washington in Seattle	87
23	University of Houston	83
24	Rutgers, The State University of New Jersey, School of Engineering	82
24	Stony Brook University	82
26	University of Maryland, College Park	81
27	Cornell University	80
28	Washington State University	79
29	Iowa State University	78
30	Northeastern University	77
31	Missouri University of Science and Technology	74
31	Northwestern University	74
31	University of Central Florida	74
34	University at Buffalo, SUNY	71
35	University of California, Irvine	70
36	The University of Texas at Dallas	69
36	University of Wisconsin-Madison	69
38	The Johns Hopkins University	65
39	William Marsh Rice University	61
40	University of Arizona	58
41	Texas Tech University	57
42	University of California, Riverside	55
42	University of Tennessee, Knoxville	55
44	Clemson University	54
45	Duke University	53
45	University of Connecticut	53
47	Oregon State University	52
48	University of South Florida	51
49	Princeton University	49
49	University of Colorado Boulder	49

404 Institutions included

3.1.14 Top 50 Institutions Awarding Bachelor's Degrees (excluding computer science both inside and outside Engineering)

Table 68: Top 50 Institutions Awarding Bachelor's Degrees (excludce)

ing	com	pute	er sc	ience
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No	Institutions	Degrees Awarded
1	Texas A&M University	2,086
2	Georgia Institute of Technology	2,027
3	Purdue University	2,013
4	University of Illinois at Urbana-Champaign	1,908
5	University of California, Berkeley	1,830
6	Iowa State University	1,738
7	The Pennsylvania State University	1,697
8	Virginia Polytechnic Institute and State University	1,649
9	Arizona State University	1,569
10	North Carolina State University	1,434
11	University of Florida	1,398
12	University of Michigan	1,320
13	The University of Texas at Austin	1,313
14	The Ohio State University	1,281
15	California Polytechnic State University, San Luis Obispo	1,246
16	University of Central Florida	1,239
17	University of Maryland, College Park	1,094
18	California State Polytechnic University, Pomona	1,066
19	University of California, San Diego	1,064
20	University of Colorado Boulder	1,015
21	University of Wisconsin-Madison	1,012
22	Missouri University of Science and Technology	1,009
23	Clemson University	996
24	San Jose State University	938
25	Oregon State University	934
26	University of California, Irvine	925
27	University of Washington in Seattle	905
28	Stony Brook University	888
29	The University of Alabama	882
30	Colorado School of Mines	880
31	Rensselaer Polytechnic Institute	875
32	Rutgers, The State University of New Jersey, School of Engineering	871
33	Auburn University	867

Table 68: Top 50 Institutions Awarding Bachelor's Degrees (excluding computer science) *(continued)*

No	Institutions	Degrees Awarded
34	Northeastern University	865
35	University at Buffalo, SUNY	857
36	George Mason University	827
37	Louisiana State University	823
38	University of Minnesota -Twin Cities	816
39	University of California, Davis	815
40	Mississippi State University	808
41	New Jersey Institute of Technology	798
42	Michigan State University	779
43	University of Arizona	752
44	University of Cincinnati	746
45	University of South Florida	741
46	Texas Tech University	736
47	Michigan Technological University	725
48	University of Pittsburgh	718
49	University of California, Los Angeles	716
50	San Diego State University	702

* 403 Institutions included

Table 69: Top 50 Institutions Awarding Master's Degrees (excluding computer science)

Northeastern University	
Northeastern Oniversity	2,021
University of Southern California	1,293
Fu Foundation School of Engineering and Applied Science - Columbia University	1,260
University of Michigan	1,130
Carnegie Mellon University	1,117
San Jose State University	1,027
Arizona State University	961
University of Washington in Seattle	905
NYU Tandon School of Engineering	894
Georgia Institute of Technology	850
University of California, San Diego	841
North Carolina State University	823
Massachusetts Institute of Technology	793
Texas A&M University	785
Stanford University	765
Cornell University	755
Stevens Institute of Technology	699
University of California, Berkeley	669
	665
	653
	641
	615
•	567
	516
	503
	497
	495
	455
	424
	416
	414
•	406
	403
	391
	389
Washington University in St. Louis	384
Worcester Polytechnic Institute	384
•	379
	372
	356
	353
	352
-	338
	330
	315
	315
	308
	304
	287
	283
	University of Michigan Carnegie Mellon University San Jose State University Arizona State University University of Washington in Seattle NYU Tandon School of Engineering Georgia Institute of Technology University of California, San Diego North Carolina State University Massachusetts Institute of Technology Texas A&M University Stanford University Stanford University Cornell University Stevens Institute of Technology University of California, Berkeley Northwestern University University of California, Berkeley Northwestern University University of Florida Purdue University University of Florida Purdue University University of Pennsylvania The Johns Hopkins University University of Colorado Boulder The University of Texas at Arlington George Mason University University of Texas at Austin Clemson University University of Maryland, College Park Duke University Virginia Polytechnic Institute and State University Virginia Polytechnic Institute and State University

3.1.16 Top 50 Institutions Awarding Doctoral Degrees (excluding computer science both inside and outside Engineering)

Table 70: Top 50 Institutions Awarding Doctoral Degrees (excluding computer science)

No	Institutions	Degrees Awarded
1	Georgia Institute of Technology	406
2	Purdue University	365
3	Stanford University	303
4	Massachusetts Institute of Technology	301
5	Texas A&M University	265
6	University of Illinois at Urbana-Champaign	262
7	University of Michigan	239
8	The University of Texas at Austin	205
9	The Pennsylvania State University	184
10	North Carolina State University	182
11	University of California, Berkeley	180
12	Virginia Polytechnic Institute and State University	173
13	University of California, San Diego	168
14	University of Florida	161
15	University of Washington in Seattle	159
16	Arizona State University	158
17	The Ohio State University	148
18	University of Minnesota -Twin Cities	140
19	Carnegie Mellon University	136
19	University of California, Los Angeles	136

Table 70: Top 50 Instit	utions Awarding	Doctoral Degre	es (exclud-
ing computer science)	(continued)		

No	Institutions	Degrees Awarded
21	Cornell University	132
22	University of Wisconsin-Madison	127
23	Northwestern University	123
24	University of Colorado Boulder	119
25	Iowa State University	116
26	University of Maryland, College Park	114
27	University of Southern California	111
28	Missouri University of Science and Technology	107
29	The Johns Hopkins University	104
29	University of Central Florida	104
29	University of Tennessee, Knoxville	104
32	Northeastern University	98
33	University of Virginia	97
34	Fu Foundation School of Engineering and Applied Science - Columbia University	95
34	University of Arizona	95
36	University of California, Irvine	93
37	Washington State University	92
37	William Marsh Rice University	92
39	The University of Texas at Arlington	91
40	University of Houston	90
41	Duke University	87
42	Michigan State University	85
43	Clemson University	82
44	Colorado School of Mines	81
44	University of Utah	81
46	Rutgers, The State University of New Jersey, School of Engineering	80
47	The George Washington University	79
48	The University of Texas at Dallas	78
49	University of California, Davis	77
49	University of California, Santa Barbara	77

^{*} 403 Institutions included

3.1.17 Institutions with the Highest Percentage of Doctoral Degrees to Foreign Nationals

Table 71: Highest Percentage of Doctoral Degrees to Foreign Nationals (min 25 awarded)

No	Institutions	Percentage
1	Lamar University	100%
1	Prairie View A & M University	100%
1	SUNY College of Environmental Science and Forestry	100%
1	The Catholic University of America	100%
1	University of Detroit Mercy	100%
6	Illinois Institute of Technology	97.4%
7	University of Maine	90.9%
8	Southern Illinois University Carbondale	90%
9	University of Nevada, Reno	88.9%
10	Wichita State University	86.7%
11	Brown University	86.4%
12	Texas A&M University - Kingsville	85.7%
13	Florida International University	84.2%
14	Florida Institute of Technology	83.9%
15	The University of Texas at Arlington	83.6%
16	Lawrence Technological University	83.3%
17	North Dakota State University	82.6%
17	University of Louisville	82.6%
19	The University of Toledo	82.4%
19	University of Missouri - Kansas City	82.4%
21	Embry Riddle Aeronautical University-Daytona Beach	81.8%
22	Syracuse University	81.6%
23	University of Houston	80.6%
24	Tennessee State University	80%
25	Lehigh University	79.5%
25	University of South Carolina	79.5%
27	City College of the City University of New York	78.3%
27	Southern Methodist University	78.3%
29	Rutgers, The State University of New Jersey, School of Engineering	78.1%
30	University at Buffalo, SUNY	78%
31	NYU Tandon School of Engineering	77.2%
32	South Dakota State University	76.9%
32	University of Denver	76.9%
32	University of Wisconsin, Milwaukee	76.9%
35	Stony Brook University	76.6%
36	Oklahoma State University	76.5%
37	Washington State University	76%
38	University of Cincinnati	75.4%

Table 71: Highest Percentage of Doctoral Degrees to Foreign Nationals (min 25 awarded) *(continued)*

No	Institutions	Percentage
39	Cleveland State University	75%
39	Kansas State University	75%
39	Marquette University	75%
39	University of Massachusetts-Boston	75%
39	University of North Texas	75%
39	University of Rhode Island	75%
45	University of Oklahoma, Gallogly College of Engineering	74.4%
46	University of Connecticut	73.6%
47	Texas A&M University	73.3%
48	University of California, Los Angeles	73%
49	New Jersey Institute of Technology	72.1%
50	Western Michigan University	72%

^{*} 404 Institutions included

3.1.18 Institutions with the Lowest Percentage of Doctoral Degrees to Foreign Nationals

Table 72: Institutions with the Lowest Percentage of Doctoral Degrees to Foreign Nationals (min 25 awarded)

No	Institutions	Percentage
1	Idaho State University	40%
2	University of California, Berkeley	40.7%
3	University of Virginia	42.3%
4	University of New Orleans	42.9%
5	The University of New Mexico	43.2%
6	Stanford University	43.4%
7	Morgan State University	46.2%
7	University of Vermont	46.2%
9	University of North Carolina at Chapel Hill	46.4%
10	Harvard University	47.1%
10	University of Colorado Colorado Springs	47.1%
12	Boston University	47.4%
12	The University of Texas at El Paso	47.4%
14	University of Utah	47.5%
15	University of Michigan	47.6%
16	University of California, Santa Barbara	48.4%
16	University of Maryland, Baltimore County	48.4%
18	Tufts University	48.5%
19	Cornell University	48.8%
20	Vanderbilt University	49.1%
21	University of Pittsburgh	49.2%
22	University of Delaware	49.3%
22	University of Wisconsin-Madison	49.3%
24	University of California, Davis	49.4%
25	University of Tennessee, Knoxville	49.5%

* 404 Institutions included

3.1.19 Top 10 Institutions by Total Doctoral Degrees awarded in Engineering (General)

Table 73: Top 10 Institutions by Total Doctoral Degrees awarded in Engineering (General)

No	Institutions	Degrees Awarded
1	Dartmouth College	18
2	University of Nebraska, Lincoln	17
2	Villanova University	17
4	Wright State University	12
5	Morgan State University	11
6	Rochester Institute of Technology	10
6	The University of Memphis	10
8	Lamar University	9
9	Arizona State University	6
9	Texas A&M University	6

^{*} 127 Institutions included

3.2 ENGINEERING DOCTORAL ENROLLMENT

3.2.1 Doctoral Enrollment by Race, Ethnicity, and Gender

Ethnicity	Enrollments
Nonresident Alien Male	32,472
Nonresident Alien Female	11,576
Unknown Male	1,983
Unknown Female	888
Hispanic Male	1,999
Hispanic Female	928
White Male	12,577
White Female	5,543
Black or Afr. American Male	941
Black or Afr. American Female	585
Asian American Male	3,060
Asian American Female	1,610
American Indian Male	57
American Indian Female	24
Native Hawaiian/Other Pacific Islander Male	23
Native Hawaiian/Other Pacific Islander Female	13
Multiracial Male	788
Multiracial Female	435
Total Male	53,900
Total Female	21,602

Table 74: Doctoral Enrollment by Race, Ethnicity, and Gender 75,502*

^{*} Includes 5 male and4 female enrolled students from Institutions in Puerto Rico.

Doctoral Enrollment by Race, Ethnicity, and Gender



Table 75: Doctoral Enrollment by Engineering Discipline:(Full time and Part time)

Discipline Name	Full Time	Part Time
Aerospace	2,603	274
Architectural	116	2
Biological and Agricultural	611	45
Biomedical	7,752	489
Chemical	6,589	246
Civil	4,277	523
Civil/Environmental	1,840	238
Computer	1,686	227
Computer Sci. (inside Eng.)	10,015	1,113
Computer Sci. (outside Engr.)	4,276	330
Electrical	5,832	612
Electrical/Computer	8,242	884
Engineering (General)	723	188
Engineering Management	129	144
Engr. Science and Engr. Physics	471	33
Envr. Eng	898	66
Industrial/Manufacturing/Systems	2,856	727
Mechanical	10,010	985
Metallurgical and Matrls.	3,539	168
Mining	79	19
Nuclear	902	75
Other	5,866	863
Petroleum	466	44

3.2.3 Doctoral Enrollment by Gender

Table 76: Doctoral Enrollment by Gender

Gender	Percentage
Female	28.6%
Male	71.4%







Table 77: Doctoral Enrollment by Race and Ethnicity	/*

Ethnicity	Percentage
Black or Afr. American	4.9%
Hispanic	9.3%
Other	4.3%
Asian American	14.8%
White	57.6%
Unknown	9.1%



3.2.5 Doctoral Enrollment by Residency

Table 78: Doctoral Enrollment by Residency

Nationality	Percentage
Foreign	58.3%
Domestic	41.7%



Doctoral Enrollment by Residency

4 ENGINEERING FACULTY

4.1 Number of Tenured/Tenure-Track Faculty by Engineering Discipline

Table 79: Number of Tenured/Tenure-Track Faculty by Engineering Discipline: 28,593

Discipline Name	Number of Faculty
Mechanical	5,023
Electrical/Computer	4,270
Comp Sci. (inside Eng.)	3,116
Chemical	2,110
Other	1,946
Civil/Environmental	1,784
Civil	1,720
Biomedical	1,702
Computer Sci. (outside Engr.)	1,293
Electrical	1,219
Industrial/Manufacturing/Systems	1,195
Metallurgical and Matrls.	961
Engineering (General)	818
Aerospace	686
Biological and Agricultural	497
Computer	340
Engr. Science and Engr. Physics	282
Nuclear	247
Envr. Eng	236
Petroleum	174
Engr. Management	109
Architectural	93
Mining	65

Total does not include computer science (outside engineering).





4.2 Percentage of Female Tenured/Tenure-Track Faculty by Discipline

Table 80: Percentage of Female Tenured/Tenure-Track Faculty by Discipline: 19.2 % of Total

Discipline Name	Percent Women
Biomedical	26.7%
Envr. Eng	26.7%
Engineering (General)	25.1%
Biological and Agricultural	23.5%
Computer	22.9%
Civil/Environmental	22.8%
Industrial/Manufacturing/Systems	22%
Chemical	21.9%
Civil	21.6%
Other	21.5%
Engr. Management	21.1%
Metallurgical and Matrls.	20.8%
Engr. Science and Engr. Physics	20.6%
Mining	20%
Architectural	19.4%
Comp Sci. (inside Eng.)	18.7%
Computer Sci. (outside Engr.)	18.6%
Petroleum	17.2%
Electrical	15.5%
Mechanical	15.5%
Electrical/Computer	15.3%
Nuclear	15%
Aerospace	13%

Percentage of Female Tenured/Tenure–Track Faculty by Discipline



4.3 Top 50 Institutions by Number of Tenured/Tenure-Track Faculty

Table 81: Top 50 Institutions by Number of Tenured/Tenure-Track Faculty

No	Institutions	Number of Faculty
1	Georgia Institute of Technology	489.0
2	University of Illinois at Urbana-Champaign	466.0
3	Texas A&M University	445.0
4	University of Michigan	427.0
5	The Pennsylvania State University	418.0
6	Massachusetts Institute of Technology	399.0
7	Purdue University	390.0
8	Virginia Polytechnic Institute and State University	388.0
9	North Carolina State University	369.0
10	The University of Texas at Austin	337.0
11	Arizona State University	332.0
12	University of Florida	325.0
13	Carnegie Mellon University	320.0
14	Florida Atlantic University	316.0
15	Campbell University	313.0
16	The Ohio State University	286.0
17	Stanford University	282.0

Table 81: Top 50 Institutions by Number of Tenured/Tenure-Track
Faculty (continued)

Na	Institutions	
No	Institutions	Number of Faculty
18	Cornell University	280.0
19	University of Washington in Seattle	272.0
20	University of Wisconsin-Madison	264.0
21	University of Maryland, College Park	262.0
22	University of California, Berkeley	261.0
23	University of Arizona	255.0
24	Iowa State University	252.0
24	University of Notre Dame	252.0
26	Clemson University	246.0
26	Rensselaer Polytechnic Institute	246.0
28	University of Minnesota -Twin Cities	239.0
29	Michigan State University	232.0
29	Northeastern University	232.0
29	The Johns Hopkins University	232.0
32	University of California, San Diego	227.0
33	University of California, Irvine	224.0
34	Duke University	218.0
35	University of Utah	216.0
36	Oregon State University	204.0
37	University of California, Davis	202.0
38	Northwestern University	201.0
39	University of Massachusetts Amherst	196.0
40	University at Buffalo, SUNY	194.8
41	University of Pittsburgh	194.0
42	University of Nebraska, Lincoln	190.0
43	Colorado School of Mines	189.0
43	University of Southern California	189.0
45	University of Tennessee, Knoxville	188.0
46	Auburn University	181.0
46	University of Connecticut	181.0
48	University of California, Santa Barbara	179.0
49	University of Puerto Rico, Mayaguez Campus	174.0
50	Stony Brook University	173.0
	1 Institutions included	

* 301 Institutions included

4.4 Top 20 Institutions by Number of Underrepresented Minorities Tenured/Tenure-Track Faculty

Table 82: Top 20 Institutions by Number of Underrepresented Minorities Tenured/Tenure-Track Faculty

No	Institutions	Number of Faculty
1	University of Puerto Rico, Mayaguez Campus	155
2	Texas A&M University	47
3	Florida Atlantic University	45
4	The University of Texas at El Paso	41
4	University of Florida	41
6	University of Tennessee-Chattanooga	37
7	Massachusetts Institute of Technology	36
8	Georgia Institute of Technology	32
8	Purdue University	32
10	University of Illinois at Urbana-Champaign	29
11	Howard University	28
11	Virginia Polytechnic Institute and State University	28
13	The University of Texas at San Antonio	27
14	Rochester Institute of Technology	26
14	The Pennsylvania State University	26
16	University of Michigan	24
17	North Carolina State University	23
17	The University of Texas at Austin	23
19	University of California, San Diego	22
20	Arizona State University	21

^{*} 301 Institutions included

4.5 Top 20 Institutions by Percentage of Underrepresented Minorities Tenured/Tenure-Track Faculty

Table 83: Top 20 Institutions by Percentage of Underrepresented Minorities Tenured/Tenure-Track Faculty

No	Institutions	Percent Underrepresented Minorities	
1	University of Puerto Rico, Mayaguez Campus	89.1%	
2	Virginia State University	60%	
3	Morgan State University	50%	
4	Howard University	49.1%	
5	The University of Texas at El Paso	36.3%	
6	Jackson State University	31.2%	
7	Central State University	30.8%	
8	University of Tennessee-Chattanooga	26.1%	
9	Tuskegee University	25.8%	
10	St. Mary's University	23.1%	
11	North Carolina A&T State University	22.7%	
12	Texas State University	22.2%	
13	Rochester Institute of Technology	21.1%	
14	Kennesaw State University	20%	
14	Loyola University Chicago	20%	
14	Winona State University	20%	
17	Florida Institute of Technology	19.6%	
18	The University of Texas Rio Grande Valley	19%	
19	James Madison University	18.8%	
19	The University of Texas at San Antonio	18.8%	
* 3U·	* 301 Institutions included		

301 Institutions included

4.6 Number of Engineering Teaching Personnel by Rank

Table 84: Number of Engineering Teaching Personnel by Rank 39,167

Rank	Number of Faculty
Full Professor	14,328
Associate Professor	7,852
Assistant Professor	7,706
Non-Tenure-Track Personnel	5020
FTE of All PT Personnel	4,261





4.7 Percentage of Female Tenured/Tenure-Track Faculty by Rank

Table 85: Percentage of Female Tenured/Tenure-Track Faculty by Rank

Rank	Percent
All Faculty	19.2%
Full Professor	14.2%
Associate Professor	21.4%
Assistant Professor	26.5%



Percentage of Female Tenured/Tenure-Track Faculty by Rank

4.8 Top 50 Institutions with Highest Percentage of Female Tenured/Tenure Track Faculty

Table 86: Top 50 Institutions with Highest Percentage of Female Tenured Tenure Track Faculty

No	Institutions	Percent Women
1	Smith College	70%
2	Sweet Briar College	66.7%
3	Humboldt State University	62.5%
4	Cameron University	60%
4	Saint Ambrose University	60%
6	Olin College of Engineering	50%
7	Seattle University	42.9%
7	Swarthmore College	42.9%
	5	
9	Loyola University Chicago	40%
9	University of St. Thomas	40%
11	University of Bridgeport	38.9%
12	University of San Diego	37%
13	Santa Clara University	36.7%
14	University of Portland	35%
15	Mercer University	33.3%
15	Middle Tennessee State University	33.3%
17	University of Saint Thomas	32.4%
18	California State University, Long Beach	31.8%
19	Lafayette College	31.7%
20	New York Institute of Technology	31.4%
21	University of Massachusetts Lowell	31.4%
22	California Baptist University	31%
23	Loyola Marymount University	30%
23	Rowan University	30%
23	Union College	30%
26	University of California, Merced	29.8%
27	San Jose State University	29.6%
28	University of Colorado Boulder	29.5%
29	Roger Williams University	29.4%
30	Texas Christian University	28.6%
30	University of Washington-Tacoma	28.6%
32	University of Hartford	28%
33	University of New Haven	27.8%
34	University of Washington in Seattle	27.6%
35	University of Florida	27.4%
36	University of Wisconsin, Platteville	27.3%
37	Gannon University	26.9%
37	Trine University	26.9%
37	Valparaiso University	26.9%
40	California State Polytechnic University, Pomona	26.7%
41	Stevens Institute of Technology	26.5%
42	Villanova University	26.4%
43	Harvey Mudd College	26.3%
44	California State University, Los Angeles	26.1%
45	Boise State University	25.7%
46	University of Maryland, Baltimore County	25.6%
47	Oregon State University	25.5%
48	Colorado School of Mines	25.4%
49 50	University of New Hampshire	25.3%
	University of Puerto Rico, Mayaguez Campus	25.3%

^{*} 301 Institutions included

4.9 Top 20 Institutions with Highest Number of Female Tenured/Tenure-Track Faculty

Table 87: Top 20 Institutions with Highest Number of Female Tenured/Tenure-Track Faculty

No	Institutions	Number of Faculty
1	Georgia Institute of Technology	95
1	University of Illinois at Urbana-Champaign	95
3	University of Michigan	94
4	University of Florida	89
5	The Pennsylvania State University	88
6	Massachusetts Institute of Technology	82
7	Carnegie Mellon University	79
8	Purdue University	76
8	Virginia Polytechnic Institute and State University	76
10	University of Washington in Seattle	75
11	Arizona State University	73
12	Texas A&M University	72
13	Cornell University	67
13	The University of Texas at Austin	67
15	The Ohio State University	65
16	University of California, Berkeley	63
17	North Carolina State University	62
17	Stanford University	62
19	Campbell University	61
20	University of California, Irvine	56
* 30	1 Institutions included	

301 Institutions included

4.10 Percentage of Women and Minority Faculty Members

Table 88: Percentage of Women and Minority Faculty Members

Ethnicity	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Women	13.2%	13.8%	14.0%	14.5%	15.2%	15.7%	16.3%	17.0%	17.6%	18.1%	18.6%
Black or Afr. American	2.5%	2.5%	2.7%	2.6%	2.5%	2.5%	2.3%	3.1%	2.4%	2.5%	2.5%
Asian	23.9%	24.1%	24.6%	25.2%	25.6%	26.9%	27.6%	26.0%	28.3%	28.7%	28.9%
Hispanic	3.6%	3.7%	3.9%	3.6%	3.9%	3.9%	3.7%	5.1%	3.8%	3.7%	3.9%

* Includes faculty data from University of Puerto Rico, Mayaguez.

Percentage of Women and Minority Faculty Members 2010–2020*



Table 89: Number of Full Professors by Race/Ethnicity: 13,724

Ethnicity	Number of Faculty
White	8,148
Asian	3,915
Unknown	714
Hispanic	555
Black or Afr. American	293
Multiracial	56
American Indian	28
Hawaiian/Pac.Isl	15

Includes 132 Faculty from Institutions in Puerto Rico.

Computer Science(Outside Engineering) has been removed



4.12 Number of Associate Professors by Race/Ethnicity

Table 90: Number of Associate Professors by Race/Ethnicity: 7,436

Ethnicity	Number of Faculty
White	4,134
Asian	2,242
Unknown	402
Hispanic	317
Black or Afr. American	228
Multiracial	64
American Indian	28
Hawaiian/Pac.Isl	21

^{*} Includes 25 Faculty from Institutions in Puerto Rico.
^{*} Computer Science(Outside Engineering) has been removed



Number of Assistant Professors by Race/Ethnicity 4.13

Table 91: Number of Assistant Professors by Race/Ethnicity: 6,64	Assistant Professors by Race/Ethnicity: 6.644
--	---

Ethnicity	Number of Faculty
White	3,195
Asian	2,222
Unknown	601
Hispanic	273
Black or Afr. American	253
Multiracial	77
American Indian	17
Hawaiian/Pac.Isl	6

^{*} Includes 17 Faculty from Institutions in Puerto Rico.
^{*} Computer Science(Outside Engineering) has been removed


4.14 Percentage of Black/African American Tenured/Tenure-Track Faculty by Rank

Table 92: Percentage of Black/African American Tenured/Tenure-Track Faculty by Rank

Rank	Percent
All Faculty	2.6%
Full Professor	2.1%
Associate Professor	2.9%
Assistant Professor	3.4%

Percentage of African American Tenured/Tenure–Track Faculty by Rank



4.15 Percentage of Asian Tenured/Tenure-Track Faculty by Rank

Table 93: Percentage of Asian Tenured/Tenure-Track Faculty by Rank

Rank	Percent
All Faculty	29.3%
Full Professor	28.4%
Associate Professor	29.7%
Assistant Professor	30.5%



Percentage of Asian Tenured/Tenure-Track Faculty by Rank

Table 94: Percentage of Hispanic Tenured/Tenure-Track Faculty by Rank

Rank	Percent
All Faculty	3.9%
Full Professor	3.9%
Associate Professor	4.2%
Assistant Professor	3.6%

Percentage of Hispanic Tenured/Tenure-Track Faculty by Rank

4.17 African American Tenured/Tenure Track Faculty by Institutions

Table 95: African American Tenured/Tenure Track Faculty by Institutions

No	Institutions	Number of Faculty
1	University of Tennessee-Chattanooga	29
2	University of Florida	22
3	Howard University	21
4	FAMU-FSU College of Engineering	19
5	Morgan State University	18
6	Georgia Institute of Technology	16
6	North Carolina A&T State University	16
6	University of Michigan	16
9	Massachusetts Institute of Technology	14
9	Virginia Polytechnic Institute and State University	14
11	The Johns Hopkins University	12
12	Florida Atlantic University	10
12	Rensselaer Polytechnic Institute	10
12	Texas A&M University	10
15	Clemson University	9
15	Cornell University	9
15	The Ohio State University	9
15	University of California, Berkeley	9
15	University of California, Irvine	9
20	Carnegie Mellon University	8

301 Institutions included

4.18 Asian Tenured/Tenure Track Faculty by Institutions

Table 96: Asian Tenured/Tenure Track Faculty by Institutions

No	Institutions	Number of Faculty
1	Georgia Institute of Technology	166
2	Texas A&M University	158
3	Florida Atlantic University	147
4	University of Illinois at Urbana-Champaign	138
5	Purdue University	136
6	Arizona State University	113
7	University of Michigan	107
8	Iowa State University	103
8	North Carolina State University	103
10	Michigan State University	100
11	The University of Texas at Austin	97
12	University at Buffalo, SUNY	96
13	The Ohio State University	95
14	Virginia Polytechnic Institute and State University	94
15	Rensselaer Polytechnic Institute	93
16	The Pennsylvania State University	89
17	University of California, San Diego	88
17	University of Central Florida	88
19	Carnegie Mellon University	86
19	The University of Texas at Arlington	86

* 301 Institutions included

4.19 Hispanic Tenured/Tenure Track Faculty by Institutions

Table 97: Hispanic Tenured/Tenure Track Faculty by Institutions

No	Institutions	Number of Faculty
1	University of Puerto Rico, Mayaguez Campus	151
2	The University of Texas at El Paso	39
3	Texas A&M University	36
4	Florida Atlantic University	35
5	The University of Texas at San Antonio	24
6	Purdue University	23
7	Massachusetts Institute of Technology	22
8	University of Florida	19
8	University of Illinois at Urbana-Champaign	19
10	The Pennsylvania State University	18
11	University of California, San Diego	17
12	Arizona State University	16
12	Georgia Institute of Technology	16
12	Rochester Institute of Technology	16
12	The University of Texas at Austin	16
16	North Carolina State University	15
17	University of Arizona	14
18	Stanford University	12
18	The Ohio State University	12
18	University of California, Davis	12

301 Institutions included

4.20 Percentage of African American Tenured/Tenure-Track Faculty by Discipline

Discipline Name	Percentage
Engr. Management	5.5%
Biological and Agricultural	4.6%
Mining	4.6%
Computer	4.4%
Engineering (General)	3.4%
Civil/Environmental	3.3%
Industrial/Manufacturing/Systems	3.3%
Electrical	3.2%
Other	3.2%
Biomedical	2.9%
Aerospace	2.8%
Metallurgical and Matrls.	2.7%
Civil	2.6%
Mechanical	2.6%
Chemical	2.5%
Envr. Eng	2.5%
Electrical/Computer	2.4%
Engr. Science and Engr. Physics	2.1%
Nuclear	2%
Comp Sci. (inside Eng.)	1.8%
Petroleum	1.7%
Computer Sci. (outside Engr.)	1.2%
Architectural	0%

Table 98: Percentage of African American Tenured/Tenure-Track Faculty by Discipline: 2.6 % of Total

Percentage of African American Tenured/Tenure-Track Faculty by Discipline



4.21 Percentage of Hispanic Tenured/Tenure-Track Faculty by Discipline

Table 99: Percentage of Hispanic Tenured/Tenure-Track Faculty by Discipline: 3.9 % of Total

Discipline Name	Percentage
	reicentage
Engr. Management	6.4%
Envr. Eng	6.4%
Civil	6.2%
Computer	6.2%
Industrial/Manufacturing/Systems	6.1%
Metallurgical and Matrls.	6%
Civil/Environmental	5.7%
Other	5.2%
Chemical	4.8%
Architectural	4.3%
Petroleum	4%
Aerospace	3.9%
Biomedical	3.5%
Electrical	3.3%
Mechanical	3.2%
Electrical/Computer	3.1%
Engineering (General)	3.1%
Engr. Science and Engr. Physics	2.8%
Biological and Agricultural	2.6%
Comp Sci. (inside Eng.)	2.4%
Nuclear	2.4%
Computer Sci. (outside Engr.)	1.9%
Mining	1.5%

Percentage of Hispanic Tenured/Tenure-Track Faculty by Discipline



4.22 Percentage of Asian Tenured/Tenure-Track Faculty by Discipline

Table 100: Percentage of Asian Tenured/Tenure-Track Faculty by Discipline: 29.3 % of Total

Discipline Name	Percentage
Computer	38.2%
Electrical	37.4%
Comp Sci. (inside Eng.)	35.1%
Electrical/Computer	33.4%
Industrial/Manufacturing/Systems	33%
Mechanical	31.1%
Computer Sci. (outside Engr.)	28.9%
Biomedical	27.9%
Metallurgical and Matrls.	27.1%
Petroleum	27%
Engineering (General)	26.7%
Biological and Agricultural	25.8%
Civil/Environmental	25.4%
Chemical	24.5%
Other	24.1%
Aerospace	23.9%
Civil	23.8%
Nuclear	23.1%
Mining	18.5%
Envr. Eng	18.2%
Engr. Management	16.5%
Architectural	16.1%
Engr. Science and Engr. Physics	11.7%

Percentage of Asian Tenured/Tenure-Track Faculty by Discipline



5 ENGINEERING RESEARCH EXPENDITURES

5.1 Top 50 Research Expenditure by Institutions

Table 101: Top 50 Research Expenditure by Institutions

No	Institution	Expenditure(IN MILLIONS)
1	Massachusetts Institute of Technology	\$438.6
2	The University of Texas at Austin	\$361
3	Texas A&M University	\$351.1
4	Purdue University	\$328.5
5	Georgia Institute of Technology	\$308.7
6	University of Michigan	\$306.4
7	Carnegie Mellon University	\$285.6
8	University of California, Berkeley	\$243.8
9	University of Illinois at Urbana-Champaign	\$237.6
10	University of Southern California	\$212.5
11	Stanford University	\$206.1
12	North Carolina State University	\$200
13	The Johns Hopkins University	\$199.9
14	University of Maryland, College Park	\$187.4
15		\$187.2
	University of Dayton	
16	University of Washington in Seattle	\$165.5
17	University of Colorado Boulder	\$159.8
18	Duke University	\$159.2
19	Cornell University	\$154.6
20	Wichita State University	\$151.8
21	University of Delaware	\$145.2
22	University of California, Santa Barbara	\$144.7
23	California Institute of Technology	\$138.7
24	The Ohio State University	\$133.7
25	Virginia Polytechnic Institute and State University	\$132.3
26	University of Wisconsin-Madison	\$129.3
27	The Pennsylvania State University	\$128.2
28	Arizona State University	\$125.3
29	University of California, Irvine	\$113.7
30	University of Pennsylvania	\$111.2
31	University of Rochester	\$109.4
32	Boston University	\$109.1
33	University of Pittsburgh	\$98.4
34	University of Minnesota -Twin Cities	\$96.9
35	University of California, Davis	\$96.2
36	Iowa State University	\$92.8
37	University of Virginia	\$90
38	University of Florida	\$89.7
39	Colorado State University	\$85.6
40	University of Utah	\$84.7
41	University at Buffalo, SUNY	\$84
42	William Marsh Rice University	\$81
43	University of Connecticut	\$80.1
44	Auburn University	\$78.2
44 45	Northeastern University	\$76.9
45 46		
	University of Tennessee, Knoxville	\$76.3 \$76
47	Colorado School of Mines	\$76 ¢75
48	Princeton University	\$75
49	University of Massachusetts Lowell	\$73.1
50	New Jersey Institute of Technology	\$72.9

5.2 Research Expenditures by Source in Millions of Dollars

Table 102: Research Expenditures by Source in Millions of Dollars: \$10,678

Expenditure	Amount
Federal Gov't	\$7,497
Industry	\$1,340
State Gov't	\$727
Private Nonprofit Org	\$720
Individual	\$122
Local Gov't	\$169
Foreign Govt	\$102



5.3 Computer Science Research Expenditures Located Outside of Engineering by Institutions

Table 103:	Computer Scier	nce Research	Expenditures	Located
Outside of	Engineering by In	stitution		

No	Institution	Expenditure(IN MILLIONS)
1	Carnegie Mellon University	\$153.8
2	The University of Texas at Austin	\$53.5
3	Georgia Institute of Technology	\$32.1
4	University of Maryland, College Park	\$27.9
5	University of California, Irvine	\$25.1
6	The University of Alabama in Huntsville	\$22.5
7	Northeastern University	\$20.3
8	University of Massachusetts Amherst	\$18.8
9	University of Wisconsin-Madison	\$17.9
10	Purdue University	\$15.9
11	Rensselaer Polytechnic Institute	\$11.4
12	Worcester Polytechnic Institute	\$8.3
13	Rutgers, The State University of New Jersey, School of Engineering	\$8
14	University of Massachusetts Lowell	\$7.4
15	New Jersey Institute of Technology	\$7.4
16	Dartmouth College	\$5.7
17	Boston University	\$4.7
18	New Mexico State University	\$4.5
19	The University of Memphis	\$4.4
20	FAMU-FSU College of Engineering	\$3.9

37 Institutions included

CANADIAN ENGINEERING 6

Engineering Bachelor's Degree by Canadian Institutions 6.1

Table 104: Engineering Bachelor's Degree by Canadian Institutions

No	Institutions	Degrees Awarded
1	University of Waterloo	1,353
2	University of Toronto	1,011
3	Concordia University, Montreal	973
4	University of British Columbia	903
5	University of Alberta	789
6	University of Calgary	727
7	The University of Western Ontario	476

6.2 Engineering Master's Degree by Canadian Institutions

Table 105: Engineering Master's Degree by Canadian Institutions

No	Institutions	Degrees Awarded
1	Concordia University, Montreal	1,485
2	University of Toronto	795
3	University of Waterloo	567
4	University of Calgary	457
5	University of British Columbia	391
6	University of Alberta	369
7	The University of Western Ontario	0

Engineering Doctoral Degree by Canadian Institutions 6.3

Table 106: Engineering Doctoral Degree by Canadian Institutions

No	Institutions	Degrees Awarded
INU		Degrees Awarded
1	University of Waterloo	144
2	University of Toronto	119
3	University of Alberta	103
4	Concordia University, Montreal	99
5	University of Calgary	82
6	University of British Columbia	58
7	The University of Western Ontario	0

6.4 Bachelor's Degrees Awarded by Gender- Canadian Institutions

Table 107: Bachelor's Degrees Awarded by Gender- Canadian Institutions

Gender	Percentage
Female	26.8%
Male	73.2%



Bachelor's Degrees Awarded by Gender- Canadian Institutions

Table 108: Master's Degrees Awarded by Gender- Canadian Institutions

Gender	Percentage
Female	30.2%
Male	69.8%



Master's Degrees Awarded by Gender- Canadian Institutions

6.6 Doctoral Degrees Awarded by Gender- Canadian Institutions

Table 109: Doctoral Degrees Awarded by Gender- Canadian Institutions

Gender	Percentage
Female	25.5%
Male	74.5%

Doctoral Degrees Awarded by Gender– Canadian Institutions



6.7 Tenured/Tenure-Track Faculty Members by Institutions

Table 110: Tenured/Tenure-Track Faculty Members by Institutions

No	Institutions	Degrees Awarded
1	University of British Columbia	272.00
2	Concordia University, Montreal	263.00
3	University of Toronto	249.00
4	University of Waterloo	247.34
5	University of Alberta	221.00
6	The University of Western Ontario	102.00

6.8 Percentage of Female Tenured/Tenure-Track Faculty by Rank- Canadian Institutions

Table 111: Doctoral Enrollment by Race and Ethnicity*

Rank	Percent
All Faculty	17.7%
Full Professor	13%
Associate Professor	20.2%
Assistant Professor	30.1%





7 ENGINEERING TECHNOLOGY

7.1 ENGINEERING TECHNOLOGY DEGREES

7.1.1 Engineering Technology Degrees Awarded by Discipline

Discipline Name	Degrees Awarded
Other Eng. Tech. Disciplines	2,918
Mechanical Engr. Tech.	1,993
Industrial/Manufacturing Eng. Tech.	1,280
Construction Engr. Tech.	1,205
Engr. Tech. (General)	930
Computer Engr. Tech.	803
Electrical/Electronics Eng. Tech.	620
Architectural Engr. Tech.	433
Aerospace Engr. Tech.	315
Civil Engr. Tech.	226

Table 112: Engineering Technology Degrees Awarded by Discipline : 10,723



Engineering Technology Degrees Awarded by Discipline

7.1.2 Engineering Technology Degrees Awarded to Underrepresented Minorities by Discipline

Table 113: Engineering Technology Degrees Awarded to Underrepresented Minorities by Engineering Discipline: 2,144

Discipline Name	Degrees Awarded
Other Eng. Tech. Disciplines	508
Construction Engr. Tech.	330
Mechanical Engr. Tech.	324
Industrial/Manufacturing Eng. Tech.	232
Engr. Tech. (General)	231
Computer Engr. Tech.	184
Electrical/Electronics Eng. Tech.	172
Architectural Engr. Tech.	60
Aerospace Engr. Tech.	56
Civil Engr. Tech.	47

^{*} Total does not include computer science (outside engineering).

7.1.3 Percentage of Engineering Technology Degrees Awarded to Underrepresented Minorities by Discipline

Table 114: Percentage of Engineering Technology Degrees Awarded to Underrepresented Minorities by Discipline 19.8 % of Total

Discipline Name	Percent Women
Electrical/Electronics Eng. Tech.	27.7%
Construction Engr. Tech.	27.4%
Engr. Tech. (General)	24.8%
Computer Engr. Tech.	22.9%
Civil Engr. Tech.	20.8%
Industrial/Manufacturing Eng. Tech.	18.1%
Aerospace Engr. Tech.	17.8%
Other Eng. Tech. Disciplines	17.4%
Mechanical Engr. Tech.	16.3%
Architectural Engr. Tech.	13.9%

7.1.4 Engineering Technology Bachelor's Degrees Awarded by Gender

Table 115: Engineering Technology Bachelor's Degrees Awarded by Gender

Gender	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Female	9.4%	9.5%	9.4%	10.2%	10.6%	12.8%	13.3%	14.5%	14.2%	13.6%	16.1%	15.5%
Male	90.6%	90.5%	90.6%	89.8%	89.4%	87.2%	86.7%	85.5%	85.8%	86.4%	83.9%	84.5%







Table 116	: Engineering	Technology	Bachelor's l	Degrees	Awarded by	y Race and	Ethnicity*
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Ethnicity	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Black or Afr. American	8.5%	9.2%	8.8%	8.8%	8.9%	8.5%	8.6%	6.9%	8.0%	7.5%	8.0%	7.7%
Hispanic	7.1%	7.6%	6.5%	7.8%	7.1%	9.2%	12.9%	10.6%	11.4%	11.6%	14.6%	11.9%
Other	1.0%	1.7%	1.5%	1.9%	1.7%	3.0%	4.1%	3.3%	3.5%	3.6%	4.2%	3.9%
Asian American	5.1%	5.3%	5.0%	4.9%	5.1%	5.8%	6.8%	6.4%	14.7%	5.4%	7.8%	5.2%
White	73.2%	70.4%	73.8%	72.4%	72.7%	68.7%	63.8%	68.4%	61.5%	67.3%	60.4%	67.7%
Unknown	5.1%	5.8%	4.5%	4.3%	4.5%	4.8%	3.8%	4.4%	4.2%	4.6%	5.0%	3.6%

^{*} American Indian/Alaska Native 0.7% Native Hawaiian/Other Pacific Islander 0.2% and Multiracial 3.2% are combined under other ^{*} Data on ethnicity does not include foreign nationals.



Engineering Technology Bachelor's Degrees Awarded by Race and Ethnicity

7.1.6 Engineering Technology Bachelor's Degrees Awarded by Residency

Nationality	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Foreign	5.2%	5.0%	7.4%	10.2%	7.1%	4.9%	6.8%	6.0%	6.8%	8.2%	7.4%	5.9%
Domestic	94.8%	95.0%	92.6%	89.8%	92.9%	95.1%	93.2%	94.0%	93.2%	91.8%	92.6%	94.1%

Engineering Technology Bachelor's Degrees Awarded by Residency



Table 118: Top 50 Institutions Awarding Highest Number of ET Degrees

No	Institutions	Degrees Awarded
1	Purdue University Polytechnic Institute	1,065
2	Arizona State University	800
3	Texas A&M University	630
4	Purdue University-Main Campus	618
5	East Carolina University	520
6	Farmingdale State College (SUNY)	412
7	Indiana University-Purdue University Indianapolis	297
8	New Jersey Institute of Technology	234
9	Eastern Michigan University	217
10	The University of Toledo	213
11	Rochester Institute of Technology	213
12	Ferris State University	202
13	University of North Carolina at Charlotte	199
14	Oklahoma State University	183
14	Purdue University Northwest, Technology	179
16		179
	Texas State University	
17	Old Dominion University	166
18	University of Southern Mississippi	143
19	University of Cincinnati	136
20	Murray State University	122
20	University of Maine	122
22	Western Carolina University	119
23	Tarleton State University	116
24	California State University-Chico	115
25	San Jose State University	114
26	Miami University	105
27	The Pennsylvania State University	103
28	New Mexico State University	102
29	Penn State Erie, The Behrend College	95
30	University of Louisiana at Lafayette	94
31	Eastern Washington University	92
32	University of Wisconsin, Platteville	89
33	Central Connecticut State University	86
33	Montana State University	86
35	California State University-Fresno	85
36	Louisiana Tech University	84
37	University of North Texas	83
38	Northern Illinois University	82
39	California State Polytechnic University, Pomona	78
39	Oregon Institute of Technology	78
41	Buffalo State	73
42	SUNY Polytechnic Institute	72
43	Weber State University	71
44	Wayne State University	70
45	Georgia Southern University	66
46	Purdue University Fort Wayne	65
47	Southeast Missouri State University	64
48	Michigan Technological University	62
48	South Dakota State University	62
48	Tennessee Technological University	62
	2 Institutions included	

* 122 Institutions included

7.1.8 Top 50 Institutions by Engineering Technology Degrees awarded to Underrepresented Minorities

Table 119: Top 50 Institutions by Engineering Technology Degrees awarded to Underrepresented Minorities

No	Institutions	Degrees Awarded
1	Arizona State University	216
2	Texas A&M University	195
3	Farmingdale State College (SUNY)	123
4	East Carolina University	109
5	Purdue University Polytechnic Institute	93
6	New Jersey Institute of Technology	76
7	Texas State University	69
8	Indiana University-Purdue University Indianapolis	56
8	New Mexico State University	56
10	Purdue University-Main Campus	50
11	Old Dominion University	48
12	California State Polytechnic University, Pomona	44
13	University of Southern Mississippi	39
14	California State University-Chico	38
15	Rochester Institute of Technology	37

Table 119: Top 50 Institutions by Engineering Technology Degrees awarded to Underrepresented Minorities *(continued)*

No	Institutions	Degrees Awarded
16	California State University-Fresno	36
16	Eastern Michigan University	36
16	University of North Carolina at Charlotte	36
19	Virginia State University	34
20	Tarleton State University	32
21	San Jose State University	31
22	Buffalo State	30
22	University of North Texas	30
24	Texas A&M University - Kingsville	29
25	Central Connecticut State University	23
25	Florida Agricultural and Mechanical University	23
27	Northern Illinois University	22
27	The University of Toledo	22
27	University of Louisiana at Lafayette	22
30	Alabama A & M University	20
30	Oklahoma State University	20
32	Norfolk State University	19
33	Jackson State University	17
34	Lamar University	16
34	Louisiana Tech University	16
36	University of Hartford	14
37	Purdue University Northwest, Technology	13
38	Oregon Institute of Technology	12
38	Prairie View A & M University	12
38	University of Maryland Eastern Shore	12
41	Miami University	11
41	SUNY Polytechnic Institute	11
41	Western Carolina University	11
44	Georgia Southern University	10
44	University of Cincinnati	10
44	Wayne State University	10
44	Weber State University	10
48	Eastern Washington University	9
48	Tennessee State University	9
48	The University of Memphis	9
*	2 Institutions included	

* 122 Institutions included

7.1.9 Top 50 Institutions by Percentage of Engineering Technology Degrees awarded to Underrepresented Minorities

Table 120: Top 50 Institutions by Percentage of Engineering Technology Degrees awarded to Underrepresented Minorities

No	Institutions	Percent Underrepresented Minorities
1	Jackson State University	100%
1	Southern University and A & M College	100%
1	The University of Texas Rio Grande Valley	100%
4	Alabama A & M University	95.2%
5	Prairie View A & M University	92.3%
6	Florida Agricultural and Mechanical University	92%
7	Norfolk State University	90.5%
8	Virginia State University	79.1%
9	Capitol Technology University	66.7%
10	Texas A&M University - Kingsville	65.9%
11	Rice University	60%
11	Tennessee State University	60%
13	California State Polytechnic University, Pomona	56.4%
14	New Mexico State University	54.9%
15	Pace University	50%
15	University of Idaho	50%
15	University of Maryland Eastern Shore	50%
18	Western Illinois University	45%
19	Texas A & M University-Commerce	44.4%
19	Texas A & M University-Corpus Christi	44.4%
21	California State University-Fresno	42.4%
22	Buffalo State	41.1%
23	Texas State University	41.1%
24	Drexel University	40%
24	Francis Marion University	40%
26	Lamar University	39%
27	University of North Texas	36.1%
28	California State University, Northridge	33.3%
28	Fairleigh Dickinson University-Metropolitan Campus	33.3%
28	South Dakota School of Mines and Technology	33.3%
28	Western Washington University	33.3%
32	California State University-Chico	33%
33	New Jersey Institute of Technology	32.5%
34	Texas A&M University	31%
35	Farmingdale State College (SUNY)	29.9%
36	Old Dominion University	28.9%
37	Lake Superior State University	28.6%

Table 120: Top 50 Institutions by Percentage of Engineering Technology Degrees awarded to Underrepresented Minorities *(continued)*

No	Institutions	Percent Underrepresented Minorities
37	West Texas A & M University	28.6%
39	California State University Maritime Academy	27.6%
39	Tarleton State University	27.6%
41	University of Southern Mississippi	27.3%
42	San Jose State University	27.2%
43	Arizona State University	27%
44	University of Hartford	26.9%
45	Northern Illinois University	26.8%
46	Central Connecticut State University	26.7%
47	The University of Memphis	24.3%
48	University of Louisiana at Lafayette	23.4%
49	Vaughn College of Aeronautics and Technology	23.1%
50 *	University of Arkansas at Little Rock	22.2%

^{*} 122 Institutions included

7.1.10 Top 50 Institutions Awarding Engineering Technology Degrees to Women

Table 121: Top 50 Institutions Awarding Engineering Technology Degrees to Women

No	Institutions	Degrees Awarded
1	Purdue University Polytechnic Institute	236
2	Arizona State University	232
3	Texas A&M University	124
4	Indiana University-Purdue University Indianapolis	96
5	Purdue University-Main Campus	92
6	East Carolina University	67
7	Eastern Michigan University	65
8	Farmingdale State College (SUNY)	47
9	Ferris State University	38
10	Rochester Institute of Technology	34
11	University of Southern Mississippi	32
12	University of North Texas	28
13	New Jersey Institute of Technology	26
14	Texas State University	24
15	Miami University	22
15	Murray State University	22
15	Old Dominion University	22
18	Purdue University Northwest, Technology	20
19	New Mexico State University	18
20	San Jose State University	16
20	University of North Carolina at Charlotte	16
22	Penn State Erie, The Behrend College	15
22	University of Cincinnati	15
24	Oklahoma State University	13
24	The University of Toledo	13
26	The Pennsylvania State University	12
27	California State University-Chico	11
27	California State University-Fresno	11
27	Southeast Missouri State University	11
27	University of Dayton	11
31	North Carolina State University at Raleigh	10
31	University of Maine	10
31	Wayne State University	10
34	Southern Utah University	C
34	University of Hartford	G
34	University of Louisiana at Lafayette	C C
34	Virginia State University	g
38	California State Polytechnic University, Pomona	8
38	Lamar University	8
38	Michigan Technological University	8
38	Tarleton State University	8
42	Buffalo State	7
42	Central Connecticut State University	7
42	Jackson State University	7
42	Middle Tennessee State University	7
42	Norfolk State University	7
42	SUNY Polytechnic Institute	7
42	University of Arkansas at Little Rock	7
74	Montana State University	6
49		

* 122 Institutions included

7.2 ENGINEERING TECHNOLOGY ENROLLMENT, FALL 2021

7.2.1 Full time Engineering Technology Enrollment by Discipline

Table 122: Full time Engineering Technology Enrollment by Discipline: 30,038

Discipline Name	Degrees Awarded
Other Eng. Tech. Disciplines	9,910
Mechanical Engr. Tech.	5,187
Computer Engr. Tech.	3,022
Construction Engr. Tech.	2,800
Engr. Tech. (General)	2,633
Electrical/Electronics Eng. Tech.	2,303
Aerospace Engr. Tech.	1,388
Industrial/Manufacturing Eng. Tech.	1,357
Architectural Engr. Tech.	918
Civil Engr. Tech.	520

Enrollment is for full time Bachelor's degree candidates in Engineering Technology



full time Engineering Technology Enrollment by Discipline

7.2.2 Top 50 Institutions by Engineering Technology Enrollment

Table 123: Top 50 Institutions by Engineering Technology Enrollment

No	Institutions	Enrollments
1	Arizona State University	5,001
2	Purdue University Polytechnic Institute	4,460
3	Texas A&M University	2,094
4	Ferris State University	2,039
5	East Carolina University	2,000
6	Farmingdale State College (SUNY)	1,541
7	Indiana University-Purdue University Indianapolis	1,107
8	Purdue University Fort Wayne	1,006
9	Rochester Institute of Technology	965
10	New Jersey Institute of Technology	938
11	Eastern Michigan University	928
12	Kennesaw State University	762
13	The University of Toledo	705
14	Old Dominion University	696
15	University of North Carolina at Charlotte	694
16	University of Cincinnati	679
17	Purdue University Northwest, Technology	661
18	San Jose State University	610
19	University of Maine	518
20	Oklahoma State University	514
21	Oregon Institute of Technology	478
22	California State Polytechnic University, Pomona	457
23	University of North Texas	387
24	Montana State University	386
25	University of Wisconsin - Stout	378

Table 123: Top 50 Institutions by Engineering Technology Enro	-
ment (continued)	

No	Institutions	Enrollments
26	Western Carolina University	374
27	New Mexico State University	370
28	SUNY Polytechnic Institute	359
29	Buffalo State	336
30	Brigham Young University - Idaho	331
31	Northern Illinois University	315
32	Minnesota State University-Mankato	295
33	University of Hartford	293
34	University of Dayton	278
35	South Dakota State University	266
36	Louisiana Tech University	258
37	Wayne State University	240
38	Ohio University	237
39	Miami University	234
40	University of Louisiana at Lafayette	231
41	Penn State Erie, The Behrend College	229
42	Virginia State University	220
43	University of Tennessee-Chattanooga	215
44	Tennessee Technological University	211
45	The University of Memphis	206
46	Michigan Technological University	199
47	University of Portland	170
48	Trine University	164
49	Western Michigan University	163
50	Drexel University	161

^{*} 122 Institutions reported.

* Enrollment is for full time and part-time Bachelor's degree candidates in engineering technology.

7.2.3 Engineering Technology Enrollment by Gender

Table 124: Engineering Technology Enrollment by Gender

Gender	Percentage
Female	17.4%
Male	82.6%

Engineering Technology Bachelor's Enrollment by Gender



Table 125: Engineering Technology Enrollment by Race and Ethnicity*

Ethnicity	Percentage
Black or Afr. American	9.1%
Hispanic	14.6%
Other	4.5%
Asian American	7.5%
White	62.3%
Unknown	2%

* American Indian/Alaska Native 0.5% Native Hawaiian/Other Pacific Islander 0.2%

^{*} and Multiracial 3.9% are combined under other

^{*} Data on ethnicity does not include foreign nationals.



Engineering Technology Enrollment by Race and Ethnicity

Table 126: Engineering Technology Enrollment Awarded by Residency

Nationality	Percentage	
Foreign	3.8%	
Domestic	96.2%	
* Enrollment is for full time and part-time Bachelor's degree candidates in engineering technology		

Enrollment is for full time and part-time Bachelor's degree candidates in engineering technology ^{*} 67 Institutions reported.

Engineering Technology Enrollment Awarded by Residency

