

ASEE 2019 Edition

# Engineering & Engineering Technology BY THE NUMBERS



**11 January 2021**

**ASEE Staff Removed “Arizona State University Polytechnic” from the data. ASU reports ASU-Polytechnic as part of their submission. ASEE imports IPEDs data for degrees awarded and had identified ASU-Polytechnic as a non-participating institution because it has a different IPEDS ID from ASU. This has been corrected and noted for future years.**

**16 October 2020**

**Changes from original publication:**

**(1) Several institutions contacted us about their classification of dual discipline programs (e.g. Civil/Environmental Engineering and Electrical/Computer Engineering). After internal discussions and identifying what may have created confusion in the original submission, we decided to reclassify institutions who reported last year as “Civil/Environmental Engineering” or “Electrical/Computer Engineering”, if the following conditions held:**

**(a) They did not report the program in 2018 as a dual discipline.**

**(b) The name of the program (e.g. “Environmental Engineering (B.Sc.)”) indicated a single discipline.**

**Only programs that met conditions (a) and (b) were reclassified to single discipline programs. We have modified how we are collecting disciplinary information for 2020 to avoid confusion.**

**(2) The University of California, Santa Cruz updated the degrees awarded from their original submission.**

**(3) There was an error in reading in the data submitted by North Carolina State University that has been corrected.**



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#### **Engineering and Engineering Technology by the Numbers, 2019**

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# Engineering by the Numbers 2019

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# 1 ENGINEERING IN 2019

Joseph R. Roy, Ph.D.

In the fall of 2019 the ASEE began replacement of the Profiles data collection system and the Engineering Data Management System (EDMS). All aspects of the data collection process are being upgraded, including our production of the descriptive statistics of engineering and engineering technology programs. The *Engineering by the Numbers* has been expanded this year to a dynamically linked document meant to be easier to navigate. There is also a separate section on engineering technology included as well.

For engineering disciplines there has been a 7.5% increase in 2019 for the number of engineering bachelors degrees awarded while there was a 0.4% decrease in undergraduate enrollment. For masters programs, both degrees awarded and enrollment decreased, 4.9% and 7.0% respectively. Doctoral programs mirrored undergraduate program changes from 2018 by increasing the number of graduates (5.3%) with a small increase in enrollment (-3.0%) for 2019. The remainder of this report highlights changes this year along and some noticeable trends in the data that may be of interest to the reader.

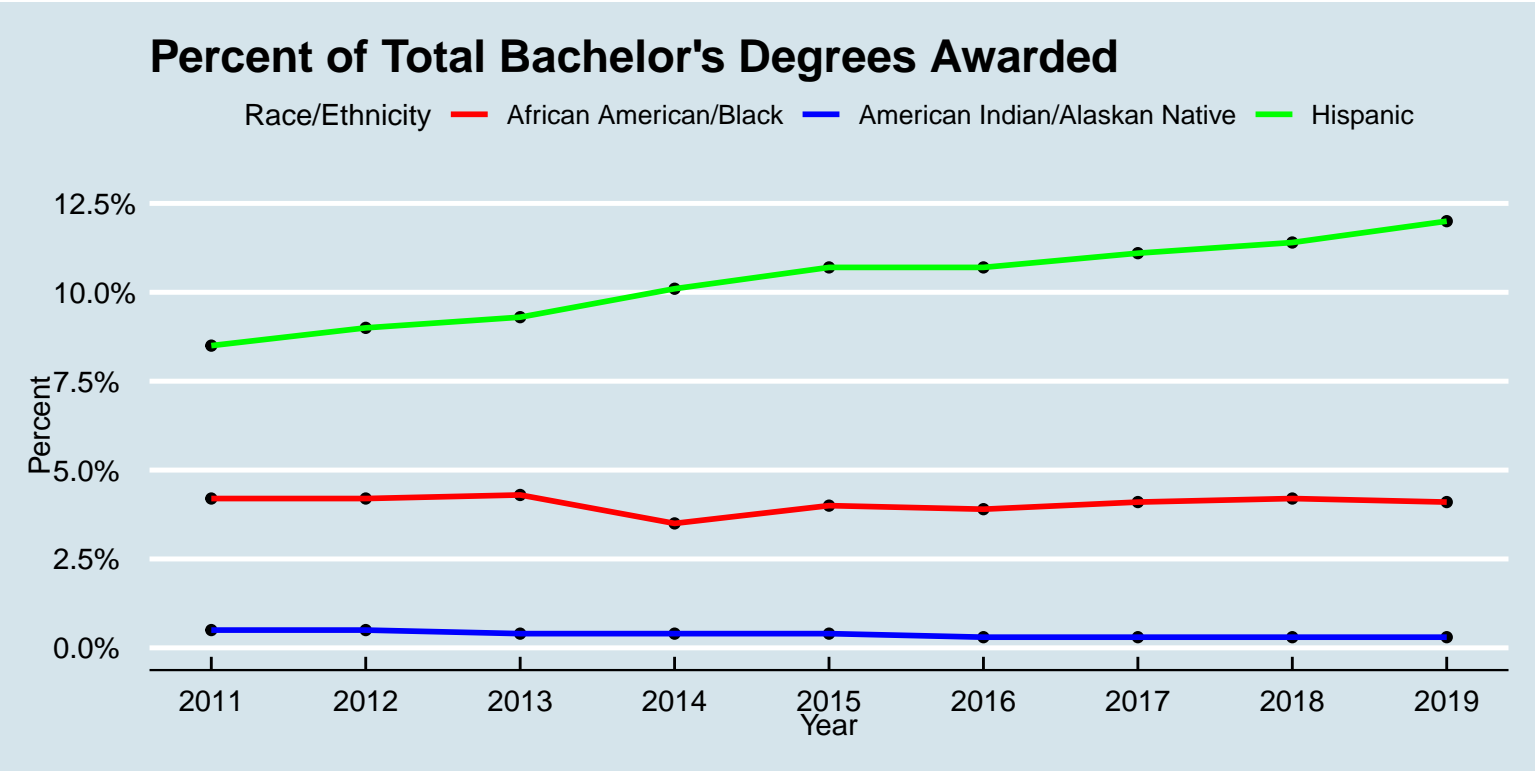
## 1.1 Gender in ASEE Data Collections

After consultation with the Data Task Force appointed by the Board of Directors in 2018 and 2017 as well as consultation with the Engineering Deans Council Data Committee, the gender categories ASEE Profiles collects were expanded to include non-binary gendered individuals and individuals with another or unknown (along with the established male and female categories). Previously, we had followed the federal government guidelines for reporting individuals who are not male or female in the headcounts collected. The guidelines require institutions report these individuals, but in the category of male or female, at the institutions discretion. This year, only 11 institutions reported any individuals who were non-binary gendered or other gendered. Those graduates are included in the total counts for institutions reported in the the following tables. The numbers collected this year are too small to draw many conclusions from (for example, only 4 individuals were reported to identify as non-binary gendered in the Engineering bachelors degrees awarded).

## 1.2 Representation in Engineering of Underrepresented Minorities

The ASEE Profiles data collection is in alignment with how the federal government collects race/ethnicity characteristics from institutions. The full definition of each race/ethnicity category is included in the methodology section. The term *underrepresented minority*(URM) refers to three groups which have representation in the science and engineering workforce far below their representation in the adult US population. This includes individuals who are Hispanic, Black/African American and American Indian/Alaskan Native.

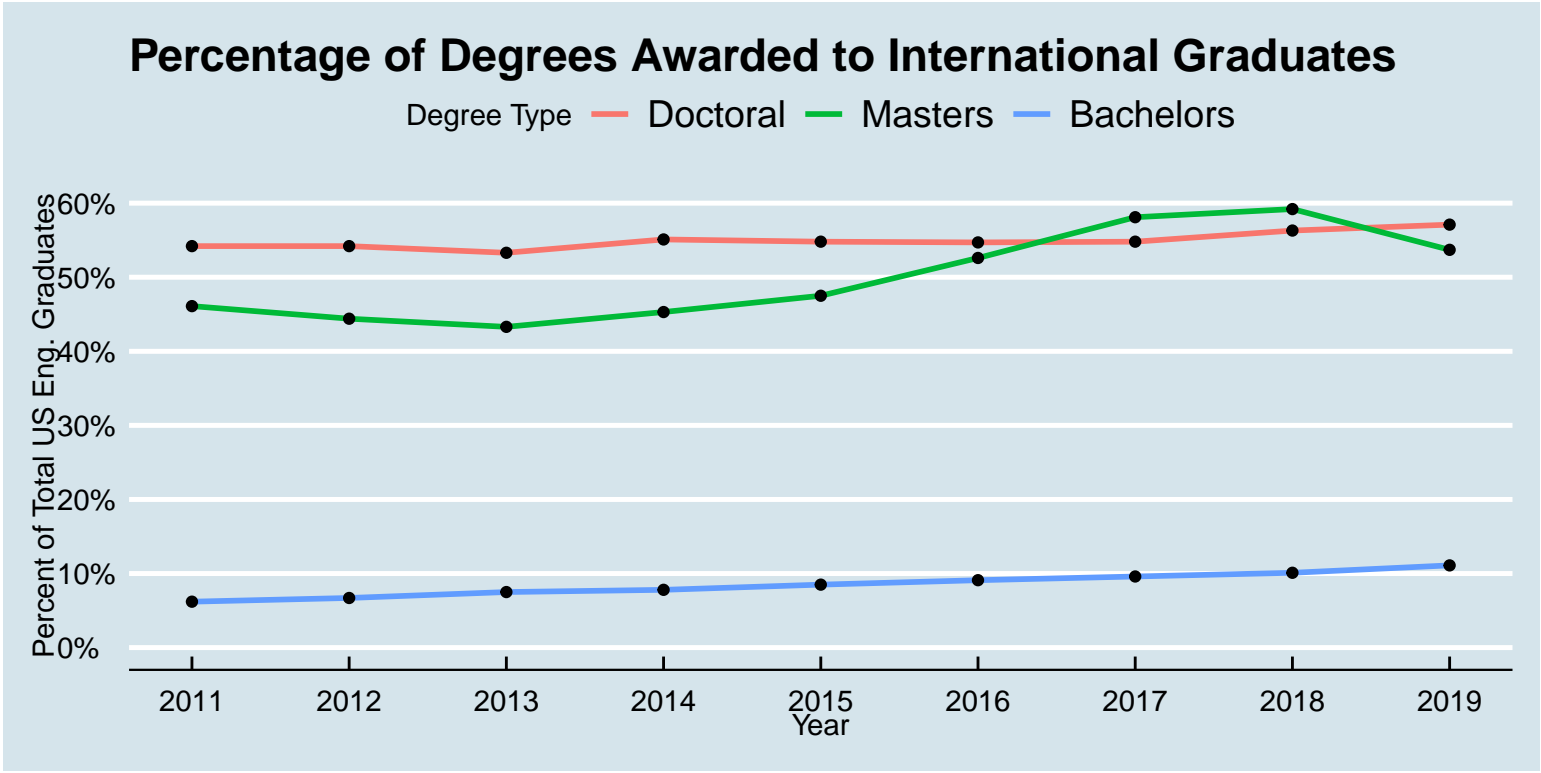
The figure below represents the percent of bachelor degrees in engineering awarded to URM graduates over the last 8 years. The percent of Hispanic graduates has increased from 8.5% in 2011 to 11.9% in 2019 with a steady increase in the intervening years. The percent of Black graduates, however, has not increased over the same time span with 4.2% in 2011 and 4.3 % in 2019 and no growth upward in the data. There has been a steady decline in the percent of American Indian/Alaskan Natives from 0.5% in 2011 to 0.3 % in 2019.



## 1.3 International Students in Engineering

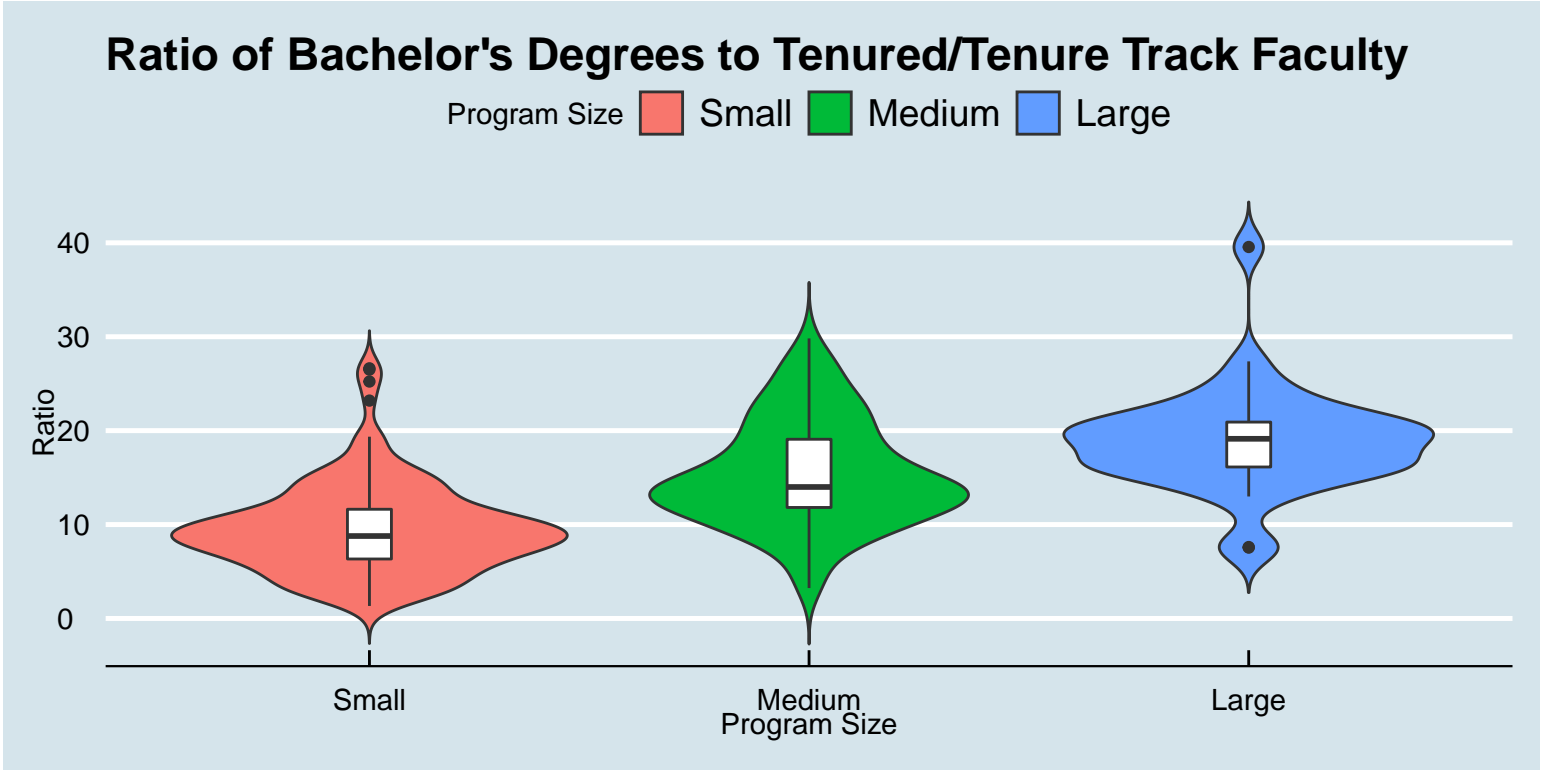
The data below represent the percent of international graduates within engineering since 2011. There is a slight trend upward in the Masters graduates for engineering, but generally the last 8 years have looked remarkably similar with the respect of the amount of international students graduating from US Engineering programs. The gap, however, between undergraduate and graduate engineering talent production is very large. The majority of Masters students and Doctoral students graduating with degrees in engineering have been international students.

We expanded the race/ethnicity category for faculty to include non-resident aliens this year. In 2019, 1.9 % of engineering tenure-track faculty were comprised of non-resident aliens. The most recent recent year we have data for all faculty at 4-year institutions, 2018, showed that non-resident aliens comprised 4.4 % of all tenure-track faculty. This may be surprising given the large number of international doctorates in engineering. However, this could be an artifact of the difference between students and faculty: Most international students are on some type of temporary visa in the US which means they would appear in institutional data collections, such as this one, that asks to separate out the temporary residents from the other race/ethnicity categories. Most tenure-track positions are not temporary and, in fact, the expectation generally would be an institution would sponsor a more permanent residency (i.e. green card) for such faculty members. Therefore, those individuals would be reported under the race/ethnicity category they selected upon initial hire and not as a temporary resident.



#### 1.4 Faculty to Student Ratios

The listing of the institutions with the highest and lowest bachelor degree recipients to tenured/tenure track faculty ratios has been removed from the tables that follow. While this is an important measure for building peer group analysis for institutions, the measure itself becomes complicated by the increase of the amount of teaching professional track faculty which are not included in this measure, but in some instances make up a majority of instructional faculty at an institution. As of 2018, the most recent year for which there is data, there are currently 681,848 full-time instructional faculty at four-year institutions, and professional (non-tenure) track faculty make up 261,307 of those positions.



In the figure above, we remove institutions awarding less than 50 bachelors degrees, which leaves a total of 257 institutions. We categorize institutions as small programs with 400 or less graduates, medium programs with between 400 and 1000 graduates and then over 1000 graduates as a large program. We can see the distribution in the violin plot with a traditional box-plot situated within each violin of the data. The violins represent the mass of the data (we can see the widest part occurs at the median for each program size). The trend is that larger programs have larger ratios, unsurprisingly, but there are some institutional exceptions seen in the black dots, at the high and low end of the distribution.



2 ENGINEERING BACHELORS

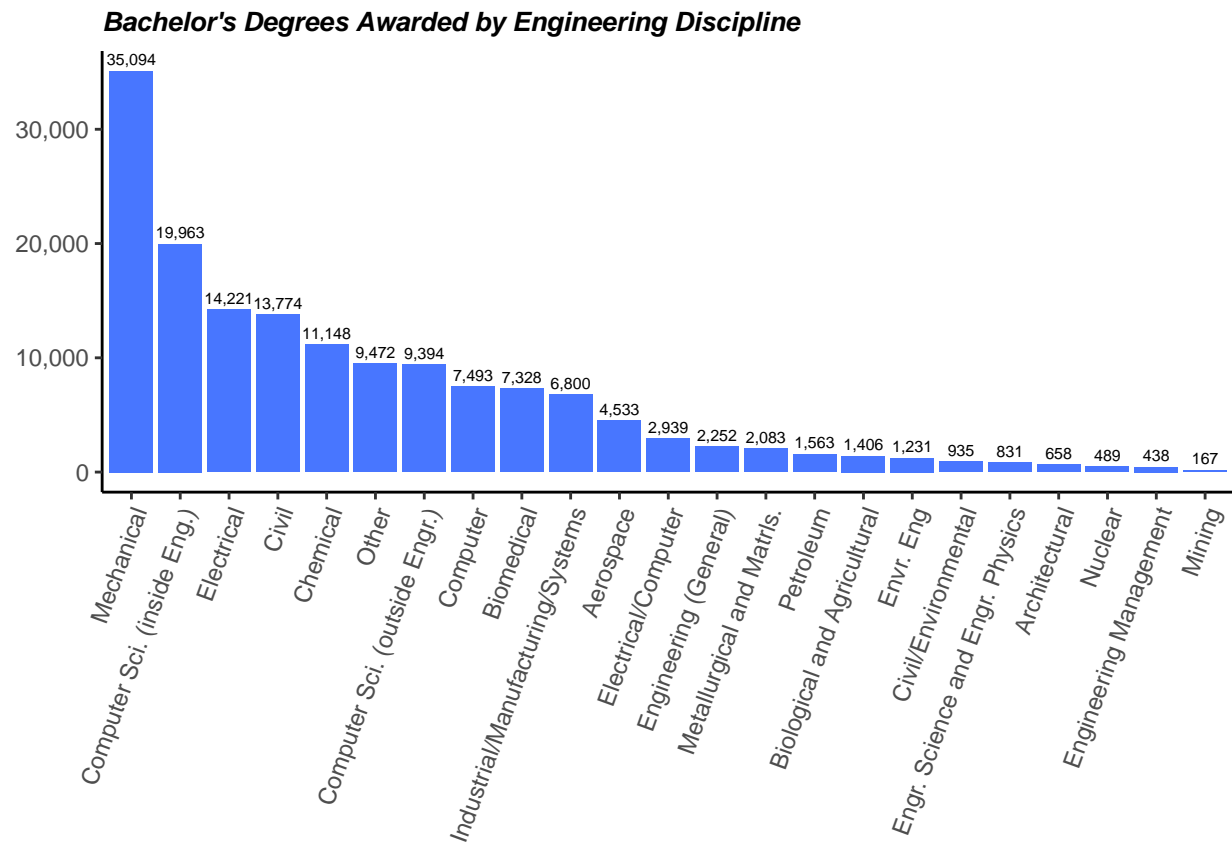
2.1 ENGINEERING BACHELOR’S DEGREES

2.1.1 Total Bachelor’s Degrees Awarded by Engineering Discipline

Table 1: Bachelors Degrees by Discipline: 144,818\*

Discipline Name	Degrees Awarded
Mechanical	35,094
<b>Computer Sci. (inside Eng.)</b>	19,963
Electrical	14,221
<b>Civil</b>	13,774
Chemical	11,148
<b>Other</b>	9,472
Computer Sci. (outside Engr.)	9,394
<b>Computer</b>	7,493
Biomedical	7,328
<b>Industrial/Manufacturing/Systems</b>	6,800
Aerospace	4,533
<b>Electrical/Computer</b>	2,939
Engineering (General)	2,252
<b>Metallurgical and Matrls.</b>	2,083
Petroleum	1,563
<b>Biological and Agricultural</b>	1,406
Envr. Eng	1,231
<b>Civil/Environmental</b>	935
Engr. Science and Engr. Physics	831
<b>Architectural</b>	658
Nuclear	489
<b>Engineering Management</b>	438
Mining	167

\* Total does not include computer science (outside engineering).



2.1.2 Total Bachelor’s Degrees Awarded to Underrepresented Minorities by Engineering Discipline

Table 2: Bachelor’s Degrees Awarded to Underrepresented Minorities by Engineering Discipline: 21,926

Discipline Name	Degrees Awarded
Mechanical	5,441
Computer Sci. (inside Eng.)	2,786
Civil	2,564
Electrical	2,521
Chemical	1,454
Other	1,325
Computer	1,185
Industrial/Manufacturing/Systems	1,048
Computer Sci. (outside Engr.)	1,037
Biomedical	1,004
Aerospace	619
Electrical/Computer	330
Engineering (General)	311
Metallurgical and Matrls.	263
Petroleum	259
Envr. Eng	174
Biological and Agricultural	144
Civil/Environmental	133
Engr. Science and Engr. Physics	98
Architectural	91
Nuclear	76
Engineering Management	71
Mining	29

2.1.3 Percentage of Bachelors Degrees Awarded to Underrepresented Minorities by Discipline

Table 3: Percentage of Bachelors Degrees Awarded to Underrepresented Minorities by Discipline 14.7 % of Total

Discipline Name	Degrees Awarded
Civil	18.6%
<b>Electrical</b>	17.7%
Mining	17.4%
<b>Petroleum</b>	16.6%
Engineering Management	16.2%
<b>Computer</b>	15.8%
Mechanical	15.5%
<b>Nuclear</b>	15.5%
Industrial/Manufacturing/Systems	15.4%
<b>Civil/Environmental</b>	14.2%
Envr. Eng	14.1%
<b>Computer Sci. (inside Eng.)</b>	14%
Other	14%
<b>Architectural</b>	13.8%
Engineering (General)	13.8%
<b>Aerospace</b>	13.7%
Biomedical	13.7%
<b>Chemical</b>	13%
Metallurgical and Matrls.	12.6%
<b>Engr. Science and Engr. Physics</b>	11.8%
Electrical/Computer	11.2%
<b>Computer Sci. (outside Engr.)</b>	11%
Biological and Agricultural	10.2%

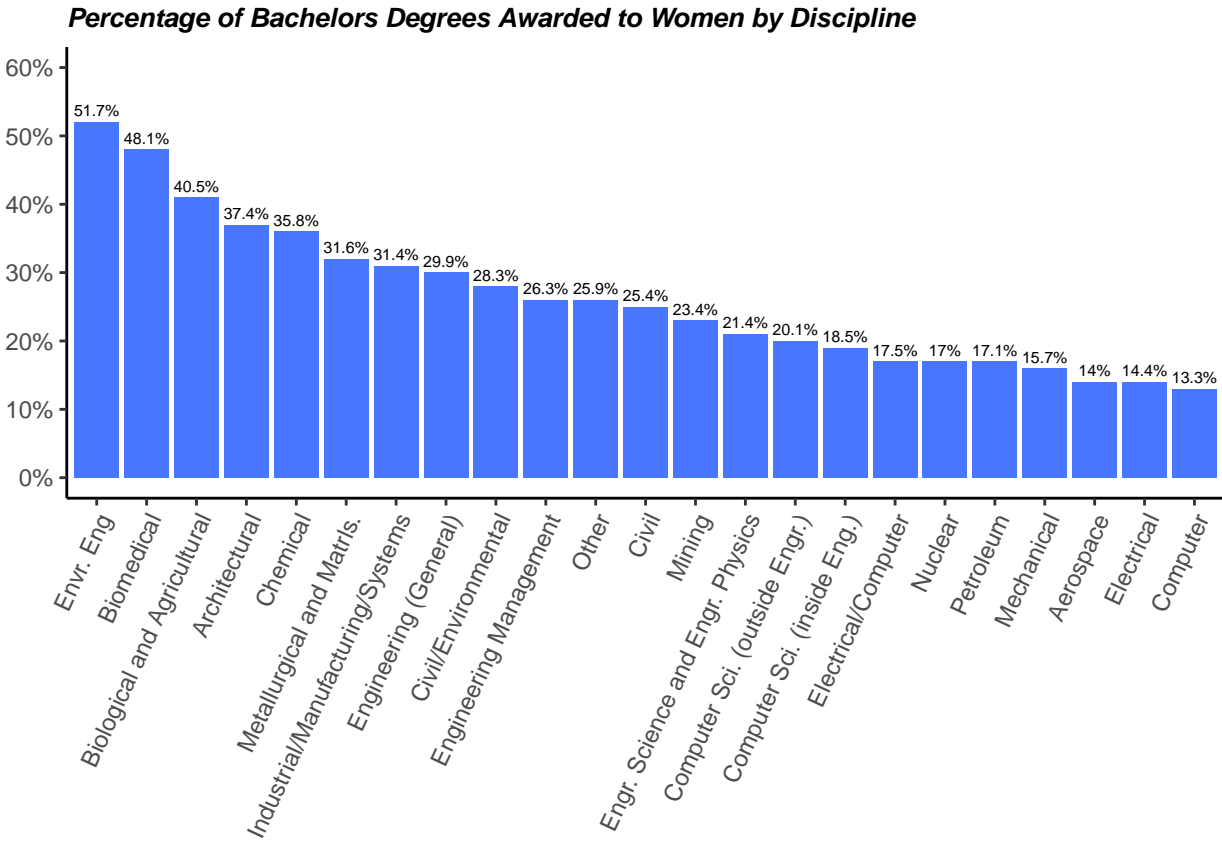
2.1.4 Percentage of Bachelors Degrees Awarded to Women by Discipline

Table 4: Percentage of Bachelors Degrees Awarded to Women by Discipline 22.5 % of Total

Discipline Name	Percent Women
Envr. Eng	51.7%
<b>Biomedical</b>	48.1%
Biological and Agricultural	40.5%
<b>Architectural</b>	37.4%
Chemical	35.8%
<b>Metallurgical and Matrls.</b>	31.6%
Industrial/Manufacturing/Systems	31.4%
<b>Engineering (General)</b>	29.9%
Civil/Environmental	28.3%
<b>Engineering Management</b>	26.3%
Other	25.9%

Table 4: Percentage of Bachelors Degrees Awarded to Women by Discipline 22.5 % of Total *(continued)*

Discipline Name	Percent Women
<b>Civil</b>	25.4%
Mining	23.4%
<b>Engr. Science and Engr. Physics</b>	21.4%
Computer Sci. (outside Engr.)	20.1%
<b>Computer Sci. (inside Eng.)</b>	18.5%
Electrical/Computer	17.5%
<b>Petroleum</b>	17.1%
Nuclear	17%
<b>Mechanical</b>	15.7%
Electrical	14.4%
<b>Aerospace</b>	14%
Computer	13.3%



2.1.5 Institutions Awarding the Highest Number of Engineering Bachelor’s Degrees

Table 5: Institutions Awarding the Highest Number of Engineering Bachelor’s Degrees

No	Institutions	Degrees Awarded
1	Georgia Institute of Technology	2,812
2	<b>University of Illinois at Urbana-Champaign</b>	2,410
3	Purdue University	2,339
4	<b>Arizona State University</b>	2,275
5	Texas A&M University	2,236
6	<b>The Pennsylvania State University</b>	1,953
7	Virginia Polytechnic Institute and State University	1,952
8	<b>University of Michigan</b>	1,883
9	North Carolina State University	1,801
10	<b>University of California, Irvine</b>	1,738
11	University of Wisconsin-Madison	1,729
12	<b>The Ohio State University</b>	1,715
13	The University of Texas at Austin	1,666
14	<b>Iowa State University</b>	1,653
15	University of California, Berkeley	1,646
16	<b>University of Maryland, College Park</b>	1,624
17	Oregon State University	1,597
18	<b>University of Central Florida</b>	1,533
19	University of Florida	1,519
20	<b>California Polytechnic State University, San Luis Obispo</b>	1,424
21	Rutgers, The State University of New Jersey, School of Engineering	1,373
22	<b>University of Washington in Seattle</b>	1,366
23	University of California, San Diego	1,361
24	<b>Stony Brook University</b>	1,291
25	University at Buffalo, SUNY	1,274
26	<b>Louisiana State University</b>	1,177
27	Missouri University of Science and Technology	1,153
28	<b>University of Minnesota -Twin Cities</b>	1,131
29	Colorado School of Mines	1,118
30	<b>Clemson University</b>	1,091
31	University of California, Davis	1,088

Table 5: Institutions Awarding the Highest Number of Engineering Bachelor's Degrees (*continued*)

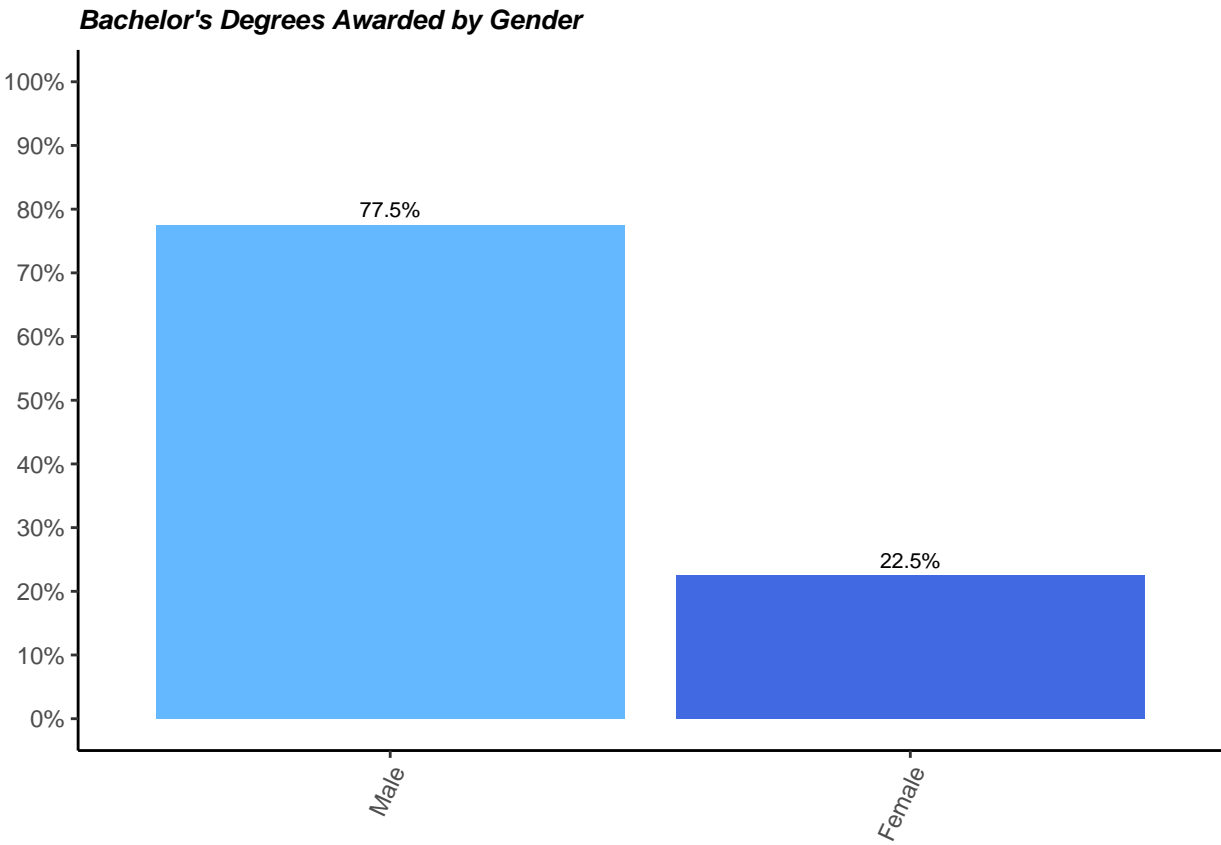
No	Institutions	Degrees Awarded
<b>32</b>	<b>Florida International University</b>	1,084
33	Michigan State University	1,072
<b>34</b>	<b>Northeastern University</b>	1,071
35	New Jersey Institute of Technology	1,062
<b>36</b>	<b>University of Colorado Boulder</b>	1,047
37	Texas Tech University	1,026
<b>38</b>	<b>George Mason University</b>	993
38	The University of Texas at Dallas	993
<b>40</b>	<b>The University of Alabama</b>	988
41	San Jose State University	980
<b>42</b>	<b>California State University, Long Beach</b>	970
43	Rensselaer Polytechnic Institute	966
<b>44</b>	<b>University of Houston</b>	949
45	Auburn University	944
<b>46</b>	<b>University of Pittsburgh</b>	935
47	University of South Florida	929
<b>48</b>	<b>Brigham Young University</b>	902
49	Drexel University	891
<b>50</b>	<b>University of California, Los Angeles</b>	888

\* 422 Institutions included

2.1.6 Bachelor's Degrees Awarded by Gender

Table 6: Bachelor's Degrees Awarded by Gender

Gender	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Female	17.80%	18.10%	18.40%	18.90%	19.10%	19.90%	20.90%	21.30%	21.90%	22.50%
Male	82.20%	81.90%	81.60%	81.10%	80.90%	80.10%	79.10%	78.70%	78.10%	77.50%



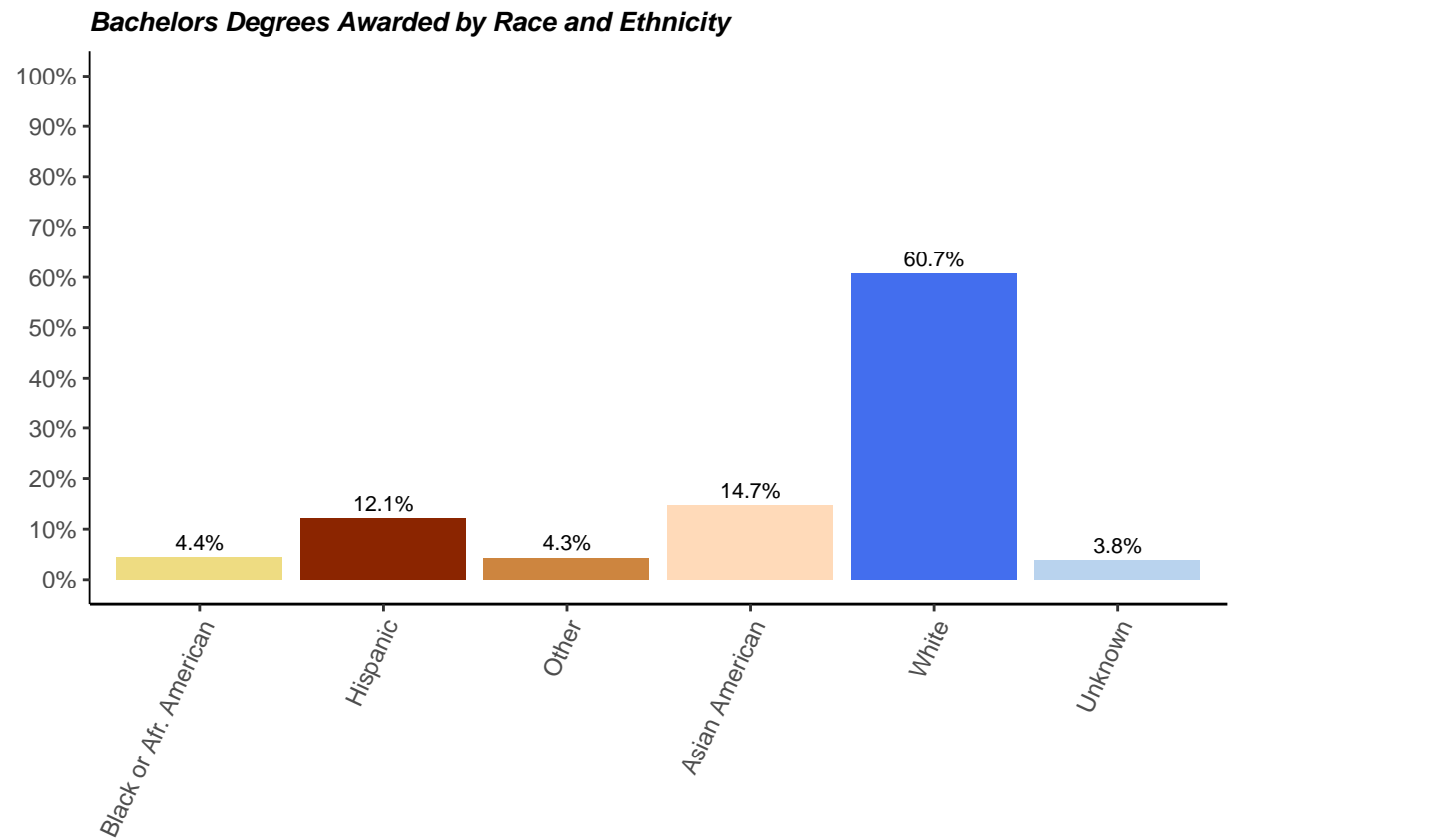
2.1.7 Bachelor's Degrees Awarded by Race and Ethnicity

Table 7: Bachelor's Degrees Awarded by Ethnicity

Ethnicity	2011	2012	2013	2014	2015	2016	2017	2018	2019
Black or Afr. American	4.2%	4.2%	4.3%	3.5%	4.0%	3.9%	4.1%	4.2%	4.4%
<b>Hispanic</b>	8.5%	9.0%	9.3%	10.1%	10.7%	10.7%	11.1%	11.4%	12.1%
Other	1.6%	2.0%	2.3%	2.9%	3.1%	3.6%	3.8%	3.5%	4.3%
<b>Asian American</b>	12.2%	12.2%	12.9%	13.1%	13.4%	14.2%	14.6%	14.7%	14.7%
White	66.6%	66.2%	65.7%	65.9%	64.9%	63.4%	62.3%	61.5%	60.7%
<b>Unknown</b>	6.9%	6.5%	5.6%	4.5%	3.9%	4.2%	4.1%	4.2%	3.8%

\*Data on ethnicity does not include foreign nationals. American Indian/Alaska Native (0.4%), Native Hawaiian/Other Pacific Islander(0.2%) and Multiracial (3.7%) are combined under Other.

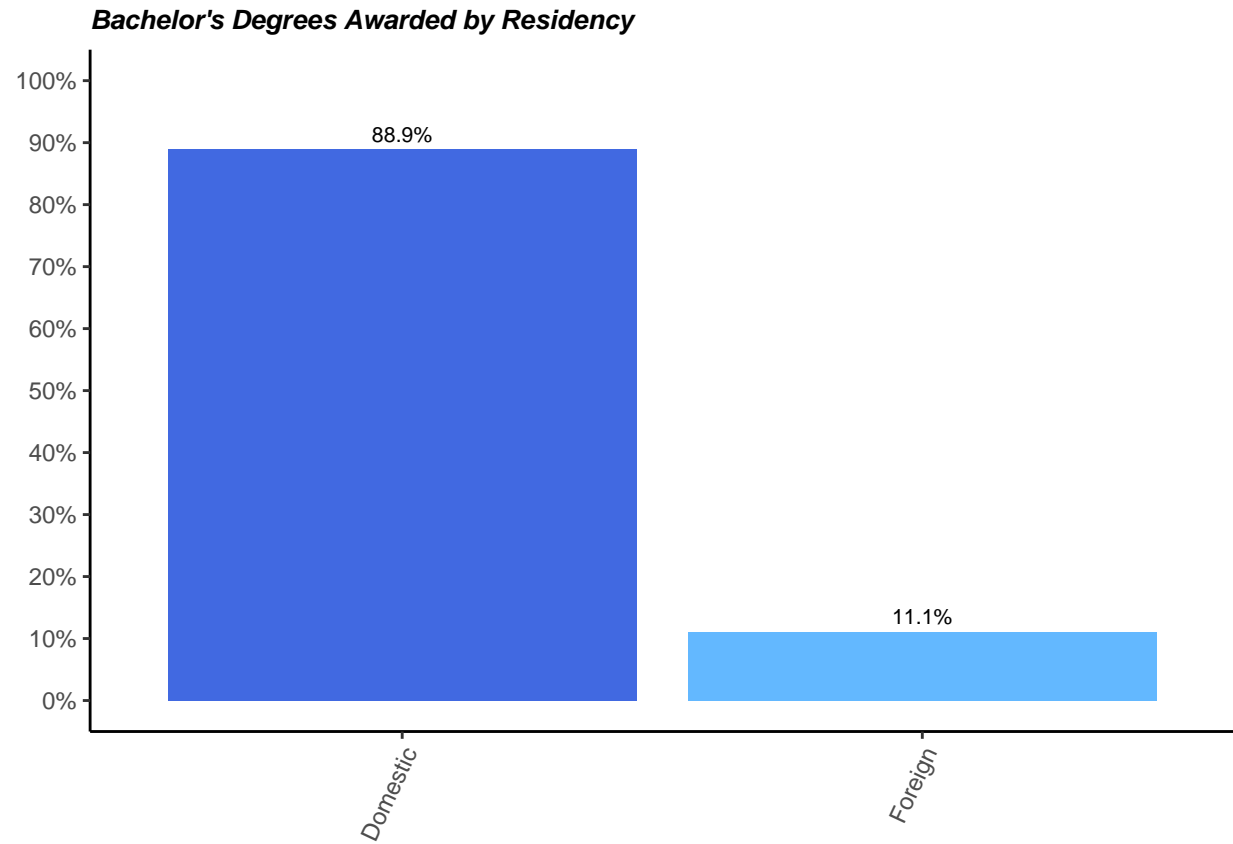




2.1.8 Bachelor’s Degrees Awarded by Residency

Table 8: Bachelor’s Degrees Awarded by Residency

Nationality	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Foreign	6.2%	6.2%	6.7%	7.5%	7.8%	8.5%	9.1%	9.6%	10.1%	11.1%
Domestic	94.0%	93.8%	93.3%	92.5%	92.2%	91.5%	90.9%	90.4%	89.9%	88.9%

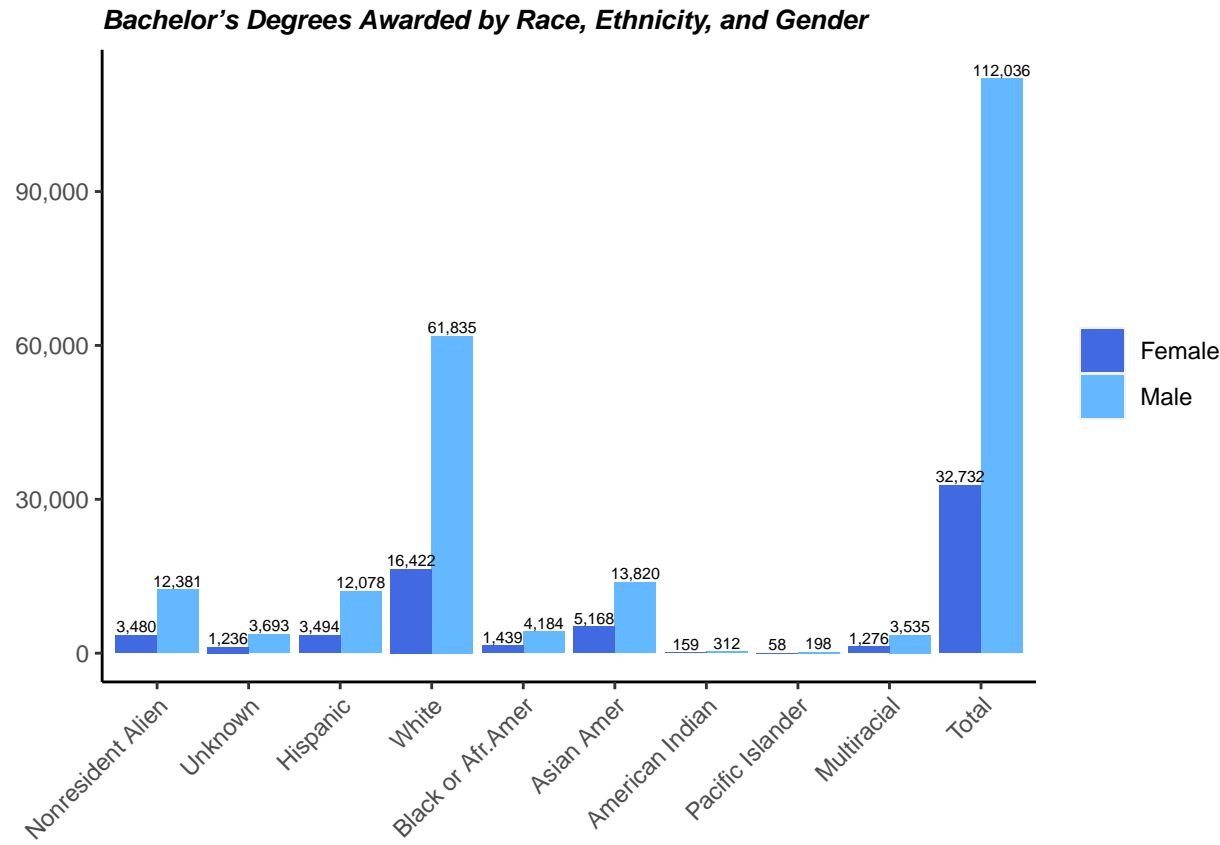


2.1.9 Bachelor’s Degrees Awarded by Race, Ethnicity, and Gender

Table 9: Bachelor’s Degrees Awarded by Race, Ethnicity, and Gender 144,818\*

Ethnicity	Degrees Awarded
Nonresident Alien Male	12,381
<b>Nonresident Alien Female</b>	3,480
Unknown Male	3,693
<b>Unknown Female</b>	1,236
Hispanic Male	12,078
<b>Hispanic Female</b>	3,494
White Male	61,835
<b>White Female</b>	16,422
Black or Afr. American Male	4,184
<b>Black or Afr. American Female</b>	1,439
Asian American Male	13,820
<b>Asian American Female</b>	5,168
American Indian Male	312
<b>American Indian Female</b>	159
Native Hawaiian/Other Pacific Islander Male	198
<b>Native Hawaiian/Other Pacific Islander Female</b>	58
Multiracial Male	3,535
<b>Multiracial Female</b>	1,276
Total Male	112,036
<b>Total Female</b>	32,732

\* Total degree includes 6 total Non binary graduates and 57 total Other Gender graduates.  
\* Includes 324 male and118 female graduates from Puerto Rico.



2.1.10 Top 50 Institutions by Total Bachelor’s Degrees awarded to Underrepresented Minorities

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

No	Institutions	Degrees Awarded
1	Florida International University	793
<b>2</b>	<b>Texas A&amp;M University</b>	539
3	University of Central Florida	479
<b>4</b>	<b>University of Puerto Rico, Mayaguez Campus</b>	442
5	Arizona State University	429
<b>6</b>	<b>The University of Texas at El Paso</b>	421
7	University of Florida	388
<b>8</b>	<b>Georgia Institute of Technology</b>	346
9	The University of Texas at San Antonio	340
<b>10</b>	<b>University of California, Irvine</b>	336
11	California State University, Long Beach	321
<b>12</b>	<b>University of Houston</b>	315
13	New Jersey Institute of Technology	304
<b>14</b>	<b>The University of Texas at Austin</b>	264
15	Texas Tech University	261
<b>15</b>	<b>The University of Texas Rio Grande Valley</b>	261
17	California State University, Los Angeles	245
<b>18</b>	<b>University of South Florida</b>	234
19	California State University, Fullerton	233

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

No	Institutions	Degrees Awarded
<b>20</b>	<b>California State University, Northridge</b>	216
20	University of Maryland, College Park	216
<b>22</b>	<b>California Polytechnic State University, San Luis Obispo</b>	215
23	University of Wisconsin-Madison	213
<b>24</b>	<b>San Jose State University</b>	209
25	San Diego State University	198
<b>26</b>	<b>The University of Texas at Arlington</b>	194
27	George Mason University	193
<b>27</b>	<b>Texas A&amp;M University - Kingsville</b>	193
27	The University of Texas at Dallas	193
<b>30</b>	<b>University of Illinois at Chicago</b>	192
31	University of Arizona	190
<b>32</b>	<b>Florida Atlantic University</b>	179
33	California State University, Sacramento	175
<b>33</b>	<b>North Carolina State University</b>	175
35	Rutgers, The State University of New Jersey, School of Engineering	174
<b>36</b>	<b>City College of the City University of New York</b>	167
37	FAMU-FSU College of Engineering	165
<b>38</b>	<b>Stanford University</b>	164
39	University of Illinois at Urbana-Champaign	161
<b>40</b>	<b>Massachusetts Institute of Technology</b>	160
40	North Carolina A&T State University	160
<b>40</b>	<b>University of California, Davis</b>	160
43	University of Maryland, Baltimore County	157
<b>44</b>	<b>Kennesaw State University</b>	153
45	The University of New Mexico	147
<b>46</b>	<b>University of California-Santa Cruz</b>	146
46	Virginia Polytechnic Institute and State University	146
<b>48</b>	<b>Stony Brook University</b>	143
49	Prairie View A & M University	140
<b>50</b>	<b>University at Buffalo, SUNY</b>	139

\* 422 Institutions included

2.1.11 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	831
<b>2</b>	<b>Purdue University</b>	569
3	Texas A&M University	523
<b>4</b>	<b>University of Michigan</b>	494
5	University of Illinois at Urbana-Champaign	482
<b>6</b>	<b>North Carolina State University</b>	468
7	University of California, Irvine	442
<b>8</b>	<b>Virginia Polytechnic Institute and State University</b>	432
9	University of California, Berkeley	431
<b>10</b>	<b>The Pennsylvania State University</b>	430
11	The University of Texas at Austin	421
<b>12</b>	<b>Arizona State University</b>	419
13	University of Washington in Seattle	413
<b>14</b>	<b>The Ohio State University</b>	406
15	University of Florida	398
<b>16</b>	<b>Massachusetts Institute of Technology</b>	388
17	Cornell University	370
<b>18</b>	<b>California Polytechnic State University, San Luis Obispo</b>	366
19	University of Wisconsin-Madison	359
<b>20</b>	<b>University at Buffalo, SUNY</b>	347
21	Colorado School of Mines	332
<b>21</b>	<b>Stony Brook University</b>	332
23	Rutgers, The State University of New Jersey, School of Engineering	330
<b>24</b>	<b>University of California, San Diego</b>	321
25	University of California, Davis	318
<b>25</b>	<b>University of Maryland, College Park</b>	318
27	Oregon State University	313
<b>28</b>	<b>Stanford University</b>	310
29	Northeastern University	293
<b>30</b>	<b>University of Virginia</b>	292
31	Worcester Polytechnic Institute	282
<b>32</b>	<b>Rensselaer Polytechnic Institute</b>	281
33	Iowa State University	271
<b>33</b>	<b>University of Minnesota -Twin Cities</b>	271
35	Louisiana State University	256
<b>36</b>	<b>Michigan State University</b>	253
37	The University of Alabama	252
<b>38</b>	<b>Clemson University</b>	251
39	University of Colorado Boulder	247
<b>40</b>	<b>University of Pittsburgh</b>	246
41	University of Central Florida	245

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

No	Institutions	Degrees Awarded
<a href="#">42</a>	<b>George Mason University</b>	234
43	Carnegie Mellon University	233
<a href="#">44</a>	<b>University of Southern California</b>	228
45	University of Houston	226
<a href="#">46</a>	<b>Missouri University of Science and Technology</b>	218
47	University of Oklahoma, Gallogly College of Engineering	215
<a href="#">48</a>	<b>Florida International University</b>	213
49	Boston University	211
<a href="#">49</a>	<b>New Jersey Institute of Technology</b>	211

\* 422 Institutions included

2.1.12 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	Bethune-Cookman University	100%
<a href="#">1</a>	<b>Central State University</b>	100%
1	Hampton University	100%
<a href="#">1</a>	<b>Navajo Technical University</b>	100%
1	Texas A & M International University	100%
<a href="#">1</a>	<b>University of Puerto Rico, Mayaguez Campus</b>	100%
7	Southern University and A & M College	96.2%
<a href="#">8</a>	<b>Virginia State University</b>	95.2%
9	Alabama A & M University	94%
<a href="#">10</a>	<b>Norfolk State University</b>	89.5%
11	The University of Texas Rio Grande Valley	83.4%
<a href="#">12</a>	<b>Prairie View A &amp; M University</b>	81.4%
13	Jackson State University	80%
<a href="#">14</a>	<b>Florida International University</b>	73.2%
15	The University of Texas at El Paso	71.6%
<a href="#">16</a>	<b>North Carolina A&amp;T State University</b>	66.4%
17	California State University-San Bernardino	62.5%
<a href="#">18</a>	<b>Texas A&amp;M University - Kingsville</b>	61.3%
19	The University of Texas of the Permian Basin	56%
<a href="#">20</a>	<b>Tuskegee University</b>	55.8%
21	California State University, Los Angeles	55.2%
<a href="#">22</a>	<b>The University of Texas at San Antonio</b>	53%
23	Morgan State University	51.2%
<a href="#">24</a>	<b>Andrews University</b>	50%
25	Howard University	47.2%
<a href="#">26</a>	<b>Fort Lewis College</b>	46.7%
27	Texas A & M University-Corpus Christi	46.3%
<a href="#">28</a>	<b>California State University-Bakersfield</b>	45%
29	The University of New Mexico	44.3%
<a href="#">30</a>	<b>Texas State University</b>	43.9%
31	Florida Atlantic University	43.3%
<a href="#">32</a>	<b>University of California, Merced</b>	41.6%
33	West Texas A & M University	41.5%
<a href="#">34</a>	<b>University of Maryland Eastern Shore</b>	40.9%
35	St. Mary’s University	39.6%
<a href="#">36</a>	<b>Texas A &amp; M University-Commerce</b>	39.4%
37	Pennsylvania State University-Penn State Hazleton	37.5%
<a href="#">38</a>	<b>Frostburg State University</b>	37.2%
39	The University of Texas at Tyler	36.9%
<a href="#">40</a>	<b>Tennessee State University</b>	36.4%
41	Lamar University	35.6%
<a href="#">42</a>	<b>Colorado State University-Pueblo</b>	33.3%
42	Muskingum University	33.3%
<a href="#">44</a>	<b>University of Houston</b>	33.2%
45	California State University, Long Beach	33.1%
<a href="#">46</a>	<b>New Mexico Institute of Mining and Technology</b>	31.9%
47	California State University, Northridge	31.9%
<a href="#">48</a>	<b>University of Massachusetts-Boston</b>	31.8%
49	College of Staten Island CUNY	31.7%
<a href="#">50</a>	<b>University of Central Florida</b>	31.2%

\* 422 Institutions included

2.1.13 Top 20 Institutions by Percentage of Bachelor’s Degrees awarded to Women

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

No	Institutions	Percent Women
1	Smith College	100%
<a href="#">1</a>	<b>Sweet Briar College</b>	100%
3	Hampton University	57.1%
<a href="#">4</a>	<b>The George Washington University</b>	52.6%



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

No	Institutions	Percent Women
5	Loras College	50%
<b>5</b>	<b>Navajo Technical University</b>	50%
7	Brown University	46.6%
<b>8</b>	<b>Massachusetts Institute of Technology</b>	46.2%
9	Tulane University	45%
<b>10</b>	<b>University of North Carolina at Chapel Hill</b>	44.2%
11	Harvey Mudd College	43.4%
<b>12</b>	<b>California Institute of Technology</b>	43.2%
13	Cornell University	42.9%
<b>14</b>	<b>SUNY College of Environmental Science and Forestry</b>	41.6%
15	Columbia University	39.9%
<b>16</b>	<b>Stanford University</b>	39.6%
17	Southern Methodist University	38.4%
<b>18</b>	<b>Dartmouth College</b>	37.6%
19	Trinity College	37.5%
<b>20</b>	<b>Princeton University</b>	36.9%

\* 422 Institutions included

2.1.14 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	Georgia Institute of Technology	153
<b>2</b>	<b>North Carolina A&amp;T State University</b>	150
3	University of Maryland, Baltimore County	117
<b>4</b>	<b>Prairie View A &amp; M University</b>	116
5	University of Maryland, College Park	109
<b>6</b>	<b>Florida International University</b>	97
7	Morgan State University	94
<b>8</b>	<b>University of Central Florida</b>	93
9	New Jersey Institute of Technology	90
<b>10</b>	<b>Kennesaw State University</b>	87
11	George Mason University	84
<b>12</b>	<b>Florida Atlantic University</b>	66
13	City College of the City University of New York	64
<b>14</b>	<b>Jackson State University</b>	63
15	Alabama A & M University	62
<b>15</b>	<b>Georgia Southern University</b>	62
15	Mississippi State University	62
<b>18</b>	<b>Texas Tech University</b>	61
19	Howard University	60
<b>19</b>	<b>University of South Carolina</b>	60

\* 422 Institutions included

2.1.15 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	902
<b>2</b>	<b>University of California, Irvine</b>	750
3	Georgia Institute of Technology	665
<b>4</b>	<b>The University of Texas at Austin</b>	591
5	University of Illinois at Urbana-Champaign	590
<b>6</b>	<b>University of California, San Diego</b>	520
7	Rutgers, The State University of New Jersey, School of Engineering	480
<b>8</b>	<b>San Jose State University</b>	427
9	Stony Brook University	412
<b>9</b>	<b>University of Maryland, College Park</b>	412
11	University of California, Davis	396
<b>12</b>	<b>University of Washington in Seattle</b>	376
13	University of California, Los Angeles	375
<b>14</b>	<b>University of Michigan</b>	358
15	University of California-Santa Cruz	320
<b>16</b>	<b>George Mason University</b>	311
17	Purdue University	295
<b>18</b>	<b>The University of Texas at Dallas</b>	294
19	California State University, Long Beach	288
<b>20</b>	<b>Texas A&amp;M University</b>	267

\* 422 Institutions included

2.1.16 Top 20 Institutions by Total Bachelor’s Degrees awarded to Hispanics

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

No	Institutions	Degrees Awarded
1	Florida International University	696
2	Texas A&M University	485
3	University of Puerto Rico, Mayaguez Campus	442
4	The University of Texas at El Paso	417
5	University of Central Florida	375
6	Arizona State University	365
7	University of Florida	325
8	California State University, Long Beach	302
9	The University of Texas at San Antonio	299
10	University of California, Irvine	290
11	The University of Texas Rio Grande Valley	260
12	University of Houston	257
13	California State University, Los Angeles	234
14	The University of Texas at Austin	229
15	California State University, Fullerton	220
16	California Polytechnic State University, San Luis Obispo	207
17	California State University, Northridge	198
18	Texas Tech University	197
19	Georgia Institute of Technology	193
20	University of Wisconsin-Madison	192

\* 422 Institutions included

2.1.17 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	West Virginia University	289
2	Embry Riddle Aeronautical University-Daytona Beach	224
3	Georgia Institute of Technology	207
4	Purdue University	160
4	Virginia Polytechnic Institute and State University	160
6	University of Central Florida	152
7	Texas A&M University	147
8	The University of Texas at Austin	138
9	The Pennsylvania State University	133
10	University of Illinois at Urbana-Champaign	131
11	Iowa State University	122
12	University of Southern California	118
13	University of Colorado Boulder	115
14	Embry Riddle Aeronautical University, Prescott	114
15	University of Michigan	112
16	University of Maryland, College Park	104
17	University of Florida	103
18	Arizona State University	98
18	University of California, San Diego	98
20	California Polytechnic State University, San Luis Obispo	97

\* 68 Institutions included

2.1.18 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	239
2	Dartmouth College	232
3	Arizona State University	142
4	University of California, San Diego	136
5	Texas A&M University	130
6	Boston University	129
6	The University of Iowa	129
8	California Polytechnic State University, San Luis Obispo	116
9	Clemson University	112
10	University of Wisconsin-Madison	106
11	The University of Texas at Austin	103
12	Drexel University	102
12	The Pennsylvania State University	102
14	Rutgers, The State University of New Jersey, School of Engineering	100
15	The Johns Hopkins University	99
16	Duke University	96
17	University of California, Riverside	94
17	University of Connecticut	94
19	University of Maryland, College Park	92
20	The University of Texas at Dallas	91

\* 157 Institutions included

2.1.19 Top 50 Institutions by Total Bachelor’s Degrees awarded in Chemical Engineering

Table 19: Top 20 Institutions by Total Bachelor’s Degrees awarded in Chemical Engineering

No	Institutions	Degrees Awarded
1	The Ohio State University	243
2	<b>The Pennsylvania State University</b>	226
3	Texas A&M University	224
4	<b>Georgia Institute of Technology</b>	220
5	The University of Alabama	206
6	<b>Arizona State University</b>	177
7	Purdue University	173
8	<b>Colorado School of Mines</b>	170
9	Northeastern University	155
10	<b>Michigan State University</b>	154
10	The University of Texas at Austin	154
12	<b>Iowa State University</b>	152
12	Montana State University	152
14	<b>University of Colorado Boulder</b>	149
14	University of Illinois at Urbana-Champaign	149
16	<b>North Carolina State University</b>	147
17	Louisiana State University	139
18	<b>University of California, Davis</b>	133
18	University of Michigan	133
20	<b>University of South Florida</b>	132
21	University of Cincinnati	128
22	<b>University of Florida</b>	127
23	University of California, Berkeley	126
24	<b>Brigham Young University</b>	117
25	Mississippi State University	116
26	<b>Rensselaer Polytechnic Institute</b>	115
26	University of Pittsburgh	115
28	<b>Oregon State University</b>	114
29	University of California, Riverside	106
29	<b>University of Wisconsin-Madison</b>	106
31	University of Kentucky	105
32	<b>Virginia Polytechnic Institute and State University</b>	102
33	University of Minnesota -Twin Cities	101
34	<b>University of California, San Diego</b>	99
35	Auburn University	98
36	<b>University of Massachusetts Amherst</b>	95
37	Michigan Technological University	92
37	<b>New Jersey Institute of Technology</b>	92
37	University of Tennessee, Knoxville	92
40	<b>University of Massachusetts Lowell</b>	90
41	University of Kansas	89
42	<b>Clemson University</b>	88
43	FAMU-FSU College of Engineering	87
43	<b>The Johns Hopkins University</b>	87
43	University of Connecticut	87
43	<b>University of Maryland, College Park</b>	87
47	University of California, Los Angeles	86
47	<b>University of Puerto Rico, Mayaguez Campus</b>	86
47	University of Utah	86
47	<b>West Virginia University</b>	86

\* 160 Institutions included

2.1.20 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	Texas A&M University	248
2	<b>Iowa State University</b>	245
3	Virginia Polytechnic Institute and State University	217
4	<b>Purdue University</b>	195
5	University of Illinois at Urbana-Champaign	180
6	<b>The Pennsylvania State University</b>	176
7	California State University, Long Beach	167
8	<b>The University of Texas at Austin</b>	160
9	The Ohio State University	158
10	<b>California Polytechnic State University, San Luis Obispo</b>	155
11	Louisiana State University	153
12	<b>University at Buffalo, SUNY</b>	150
13	North Carolina State University	148
14	<b>The University of Alabama</b>	146
15	University of Florida	140
16	<b>Florida International University</b>	139
16	University of Washington in Seattle	139
18	<b>California State University, Fullerton</b>	137
18	San Diego State University	137
20	<b>San Jose State University</b>	135

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

No	Institutions	Degrees Awarded
21	California State University, Sacramento	134
<b>22</b>	<b>University of Maryland, College Park</b>	130
23	Georgia Institute of Technology	129
<b>23</b>	<b>University of California, Davis</b>	129
25	Texas Tech University	126
<b>26</b>	<b>New Jersey Institute of Technology</b>	125
27	Missouri University of Science and Technology	124
<b>28</b>	<b>Auburn University</b>	118
28	Clemson University	118
<b>30</b>	<b>University of Nebraska, Lincoln</b>	116
31	Oregon State University	110
<b>32</b>	<b>Michigan State University</b>	107
33	FAMU-FSU College of Engineering	106
<b>33</b>	<b>University of Central Florida</b>	106
35	The University of Texas at Arlington	105
<b>36</b>	<b>California State University, Northridge</b>	102
37	University of California, Irvine	100
<b>38</b>	<b>Manhattan College</b>	98
39	University of Massachusetts Lowell	97
<b>40</b>	<b>West Virginia University</b>	96
41	California State University, Los Angeles	94
<b>41</b>	<b>University of Wisconsin, Platteville</b>	94
43	University of California, San Diego	93
<b>43</b>	<b>University of Connecticut</b>	93
45	University of Kentucky	92
<b>45</b>	<b>University of South Florida</b>	92
47	University of California, Berkeley	91
<b>47</b>	<b>University of Wisconsin-Madison</b>	91
49	Rutgers, The State University of New Jersey, School of Engineering	90
<b>50</b>	<b>Mississippi State University</b>	89

\* 243 Institutions included

2.1.21 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	Georgia Institute of Technology	356
<b>2</b>	<b>Purdue University</b>	248
3	Brigham Young University	238
<b>4</b>	<b>Texas A&amp;M University</b>	194
5	Virginia Polytechnic Institute and State University	184
<b>6</b>	<b>The Pennsylvania State University</b>	173
7	Arizona State University	169
<b>8</b>	<b>University of Michigan</b>	161
9	Iowa State University	156
<b>10</b>	<b>Clemson University</b>	154
11	The Ohio State University	134
<b>12</b>	<b>University of Wisconsin-Madison</b>	129
13	University of Florida	127
<b>14</b>	<b>University of Illinois at Urbana-Champaign</b>	125
15	West Virginia University	116
<b>16</b>	<b>California Polytechnic State University, San Luis Obispo</b>	115
17	Auburn University	108
<b>18</b>	<b>University of Virginia</b>	107
19	University of Arizona	104
<b>20</b>	<b>University of Central Florida</b>	95
21	Stanford University	93
<b>22</b>	<b>Texas State University</b>	87
23	Northwestern University	82
<b>24</b>	<b>Cornell University</b>	80
25	Rochester Institute of Technology	78
<b>26</b>	<b>North Carolina State University</b>	75
27	Columbia University	74
<b>27</b>	<b>Oregon State University</b>	74
27	Texas Tech University	74
<b>27</b>	<b>The State University of New York at Binghamton</b>	74
31	University of South Florida	72
<b>32</b>	<b>Temple University</b>	70
32	University of Pittsburgh	70
<b>34</b>	<b>Louisiana State University</b>	69
34	University of Arkansas	69
<b>36</b>	<b>University of Southern California</b>	68
37	San Jose State University	65
<b>38</b>	<b>Kansas State University</b>	64
38	University of Miami	64
<b>40</b>	<b>University of Minnesota -Twin Cities</b>	61
41	University of Washington in Seattle	59
<b>42</b>	<b>Rutgers, The State University of New Jersey, School of Engineering</b>	54



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

No	Institutions	Degrees Awarded
42	The University of Texas at El Paso	54
<a href="#">44</a>	<b>University of Puerto Rico, Mayaguez Campus</b>	52
45	Lehigh University	51
<a href="#">45</a>	<b>Southern Illinois University Edwardsville</b>	51
47	University of Missouri	50
<a href="#">48</a>	<b>The University of Iowa</b>	46
48	University at Buffalo, SUNY	46
<a href="#">48</a>	<b>University of California, Berkeley</b>	46

\* 145 Institutions included

2.1.22 Top 50 Institutions by Total Bachelor’s Degrees awarded in Mechanical Engineering

Table 22: Top 20 Institutions by Total Bachelor’s Degrees awarded in Mechanical Engineering

No	Institutions	Degrees Awarded
1	Georgia Institute of Technology	553
<a href="#">2</a>	<b>Iowa State University</b>	473
3	Texas A&M University	387
<a href="#">4</a>	<b>Virginia Polytechnic Institute and State University</b>	384
5	University of Central Florida	380
<a href="#">6</a>	<b>Purdue University</b>	364
7	Texas Tech University	352
<a href="#">8</a>	<b>The Pennsylvania State University</b>	348
9	The University of Alabama	342
<a href="#">10</a>	<b>Arizona State University</b>	340
11	Colorado School of Mines	329
<a href="#">12</a>	<b>University of Florida</b>	318
13	University of Wisconsin-Madison	317
<a href="#">14</a>	<b>Northeastern University</b>	313
15	University of Maryland, College Park	312
<a href="#">16</a>	<b>University at Buffalo, SUNY</b>	309
16	University of Michigan	309
<a href="#">18</a>	<b>Michigan Technological University</b>	294
19	Rensselaer Polytechnic Institute	290
<a href="#">20</a>	<b>The University of Texas at Austin</b>	275
21	San Diego State University	264
<a href="#">22</a>	<b>Oregon State University</b>	263
23	University of Colorado Boulder	260
<a href="#">24</a>	<b>Michigan State University</b>	259
25	Oklahoma State University	258
<a href="#">26</a>	<b>California Polytechnic State University, San Luis Obispo</b>	255
27	Colorado State University	254
<a href="#">28</a>	<b>University of California, Irvine</b>	253
29	Missouri University of Science and Technology	250
<a href="#">29</a>	<b>University of Illinois at Urbana-Champaign</b>	250
31	Clemson University	245
<a href="#">32</a>	<b>Rutgers, The State University of New Jersey, School of Engineering</b>	238
33	Worcester Polytechnic Institute	235
<a href="#">34</a>	<b>The University of Texas at El Paso</b>	229
35	California State University, Northridge	224
<a href="#">36</a>	<b>University of Dayton</b>	223
37	California State University, Fullerton	219
<a href="#">37</a>	<b>Drexel University</b>	219
37	New Jersey Institute of Technology	219
<a href="#">37</a>	<b>University of Wisconsin, Platteville</b>	219
41	University of North Carolina at Charlotte	211
<a href="#">42</a>	<b>Auburn University</b>	208
42	The University of Texas at Tyler	208
<a href="#">44</a>	<b>University of Houston</b>	204
45	The University of Texas at Dallas	203
<a href="#">45</a>	<b>The University of Texas at San Antonio</b>	203
45	University of Minnesota -Twin Cities	203
<a href="#">48</a>	<b>University of Missouri</b>	200
49	California State University, Long Beach	199
<a href="#">49</a>	<b>The Ohio State University</b>	199

\* 326 Institutions included

2.1.23 Top 50 Institutions by Total Bachelor’s Degrees awarded in Electrical Engineering

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

No	Institutions	Degrees Awarded
1	The University of Texas at Austin	339
<a href="#">2</a>	<b>Arizona State University</b>	310
3	Texas A&M University	239
<a href="#">3</a>	<b>University of Illinois at Urbana-Champaign</b>	239

Table 23: Top 50 Institutions by Total Bachelor’s Degrees awarded in Electrical Engineering *(continued)*

No	Institutions	Degrees Awarded
5	Purdue University	227
<b>6</b>	<b>The Pennsylvania State University</b>	205
7	California State University, Long Beach	190
<b>7</b>	<b>Georgia Institute of Technology</b>	190
9	Virginia Polytechnic Institute and State University	171
<b>10</b>	<b>University of California, San Diego</b>	169
11	University of Maryland, College Park	157
<b>12</b>	<b>San Jose State University</b>	151
13	University of California, Los Angeles	148
<b>14</b>	<b>University of Florida</b>	135
15	Iowa State University	132
<b>16</b>	<b>University of Central Florida</b>	131
17	The University of Texas at Dallas	127
<b>18</b>	<b>California Polytechnic State University, San Luis Obispo</b>	126
19	Oregon State University	125
<b>20</b>	<b>Rochester Institute of Technology</b>	118
20	University of Cincinnati	118
<b>22</b>	<b>Stevens Institute of Technology</b>	115
23	University at Buffalo, SUNY	114
<b>24</b>	<b>Missouri University of Science and Technology</b>	111
25	Michigan State University	109
<b>25</b>	<b>University of California, Irvine</b>	109
27	San Diego State University	106
<b>27</b>	<b>University of Minnesota -Twin Cities</b>	106
29	University of Wisconsin-Madison	105
<b>30</b>	<b>Kennesaw State University</b>	102
31	University of Illinois at Chicago	97
<b>31</b>	<b>University of Massachusetts Lowell</b>	97
33	University of California, Davis	96
<b>34</b>	<b>New Jersey Institute of Technology</b>	95
34	The University of Texas at San Antonio	95
<b>36</b>	<b>Drexel University</b>	94
36	University of South Florida	94
<b>38</b>	<b>Florida International University</b>	93
39	California State University, Northridge	92
<b>39</b>	<b>The University of Texas at El Paso</b>	92
39	University of Michigan	92
<b>42</b>	<b>University of Hawaii at Manoa</b>	89
43	George Mason University	88
<b>44</b>	<b>Milwaukee School of Engineering</b>	87
45	Texas State University	84
<b>46</b>	<b>Brigham Young University - Idaho</b>	83
46	Michigan Technological University	83
<b>46</b>	<b>Rensselaer Polytechnic Institute</b>	83
49	University of Michigan-Dearborn	82
<b>50</b>	<b>City College of the City University of New York</b>	80

\* 305 Institutions included

2.1.24 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	356
<b>2</b>	<b>San Jose State University</b>	252
3	Iowa State University	241
<b>4</b>	<b>Purdue University</b>	206
5	Virginia Polytechnic Institute and State University	183
<b>6</b>	<b>North Carolina State University</b>	152
7	Georgia Institute of Technology	151
<b>8</b>	<b>Florida International University</b>	113
8	University of Central Florida	113
<b>10</b>	<b>Northeastern University</b>	108
11	University of California-Santa Cruz	107
<b>11</b>	<b>University of Florida</b>	107
13	University of Nevada, Reno	106
<b>14</b>	<b>University of Michigan</b>	98
14	University of Wisconsin-Madison	98
<b>16</b>	<b>West Virginia University</b>	92
17	California Polytechnic State University, San Luis Obispo	89
<b>18</b>	<b>Arizona State University</b>	87
19	University of Pittsburgh	86

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

No	Institutions	Degrees Awarded
<b>20</b>	<b>University of Maryland, College Park</b>	85
21	The University of Texas at Dallas	83
<b>22</b>	<b>Missouri University of Science and Technology</b>	82
22	University of California, San Diego	82
<b>24</b>	<b>Boston University</b>	81
25	Santa Clara University	78
<b>26</b>	<b>The Pennsylvania State University</b>	74
27	Rensselaer Polytechnic Institute	72
<b>27</b>	<b>University of Minnesota -Twin Cities</b>	72
29	San Diego State University	70
<b>30</b>	<b>California State University, Fullerton</b>	67
31	Rochester Institute of Technology	66
<b>31</b>	<b>University of South Florida</b>	66
33	University of Maryland, Baltimore County	64
<b>34</b>	<b>Clemson University</b>	62
35	Drexel University	61
<b>35</b>	<b>University of Cincinnati</b>	61
37	Michigan State University	59
<b>38</b>	<b>University of California, Irvine</b>	58
38	University of Puerto Rico, Mayaguez Campus	58
<b>38</b>	<b>Wichita State University</b>	58
41	University of California, Los Angeles	56
<b>42</b>	<b>Florida Gulf Coast University</b>	55
43	Stony Brook University	54
<b>44</b>	<b>Michigan Technological University</b>	52
44	University of Massachusetts Amherst	52
<b>46</b>	<b>California State University, Long Beach</b>	51
46	University of California, Santa Barbara	51
<b>48</b>	<b>George Mason University</b>	50
49	City College of the City University of New York	49
<b>50</b>	<b>Embry Riddle Aeronautical University-Daytona Beach</b>	45

\* 227 Institutions included

2.1.25 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	434
<b>2</b>	<b>The Ohio State University</b>	274
3	Rutgers, The State University of New Jersey, School of Engineering	248
<b>4</b>	<b>University of Washington in Seattle</b>	221
5	Carnegie Mellon University	190
<b>6</b>	<b>Brigham Young University</b>	120
7	University of Arizona	119
<b>8</b>	<b>Massachusetts Institute of Technology</b>	109
9	The State University of New York at Binghamton	108
<b>10</b>	<b>Duke University</b>	100
11	Worcester Polytechnic Institute	89
<b>12</b>	<b>Cornell University</b>	88
13	New York Institute of Technology	87
<b>14</b>	<b>The University of Iowa</b>	80
15	Colorado State University	66
<b>16</b>	<b>University of Colorado Boulder</b>	62
17	University of Missouri - Kansas City	58
<b>18</b>	<b>Rowan University</b>	57
19	University of South Alabama	54
<b>20</b>	<b>University of Washington-Tacoma</b>	47

\* 102 Institutions included

2.1.26 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	903
<b>2</b>	<b>Georgia Institute of Technology</b>	617
3	University of California, Berkeley	594
<b>4</b>	<b>University of Maryland, College Park</b>	592
5	University of Wisconsin-Madison	537

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

No	Institutions	Degrees Awarded
<b>6</b>	<b>Rutgers, The State University of New Jersey, School of Engineering</b>	481
7	Purdue University	414
<b>8</b>	<b>New Jersey Institute of Technology</b>	394
9	The University of Texas at Austin	365
<b>10</b>	<b>University of Michigan</b>	270
11	University of Massachusetts Amherst	266
<b>12</b>	<b>Northeastern University</b>	264
13	University of Houston	261
<b>14</b>	<b>FAMU-FSU College of Engineering</b>	224
15	University of Pittsburgh	216
<b>16</b>	<b>University of Virginia</b>	205
17	Brigham Young University	204
<b>18</b>	<b>Rensselaer Polytechnic Institute</b>	197
19	The University of Texas at San Antonio	186
<b>20</b>	<b>Boston University</b>	182

\* 52 Institutions included

2.1.27 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	657
<b>2</b>	<b>Arizona State University</b>	550
3	University of Central Florida	518
<b>4</b>	<b>University of Illinois at Urbana-Champaign</b>	503
5	The University of Texas at Dallas	489
<b>6</b>	<b>University of California-Santa Cruz</b>	470
7	University of Michigan	465
<b>8</b>	<b>University of California, San Diego</b>	447
9	Florida International University	397
<b>10</b>	<b>Texas A&amp;M University</b>	368
11	University of California, Davis	362
<b>12</b>	<b>University of Washington in Seattle</b>	361
13	Stony Brook University	342
<b>14</b>	<b>Stanford University</b>	330
15	Virginia Polytechnic Institute and State University	304
<b>16</b>	<b>The Ohio State University</b>	296
17	University of Minnesota -Twin Cities	295
<b>18</b>	<b>University at Buffalo, SUNY</b>	273
19	Cornell University	272
<b>20</b>	<b>University of Southern California</b>	263
21	George Mason University	250
<b>22</b>	<b>California State University, Fullerton</b>	246
23	University of California, Los Angeles	245
<b>24</b>	<b>California State University, Sacramento</b>	243
25	Michigan State University	233
<b>26</b>	<b>California Polytechnic State University, San Luis Obispo</b>	229
27	University of Pennsylvania	208
<b>28</b>	<b>California State University, Northridge</b>	207
29	University of Maryland, Baltimore County	206
<b>30</b>	<b>University of Illinois at Chicago</b>	205
31	University of North Texas	203
<b>31</b>	<b>University of Utah</b>	203
33	California State University, Long Beach	200
<b>34</b>	<b>The Pennsylvania State University</b>	195
35	Auburn University	193
<b>36</b>	<b>The University of Texas at Arlington</b>	186
37	University of California, Riverside	182
<b>38</b>	<b>University of Virginia</b>	172
39	University of Washington-Tacoma	165
<b>40</b>	<b>Miami University</b>	155
41	University of Florida	154
<b>42</b>	<b>University of Connecticut</b>	153
43	Washington University in St. Louis	152
<b>44</b>	<b>University of Colorado Boulder</b>	151



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

No	Institutions	Degrees Awarded
45	Florida Atlantic University	146
<b>45</b>	<b>Portland State University</b>	146
47	Princeton University	145
<b>48</b>	<b>Clemson University</b>	140
48	Oakland University	140
<b>48</b>	<b>University of South Florida</b>	140

\* 149 Institutions included

2.1.28 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	University at Buffalo, SUNY	209
<b>2</b>	<b>Arizona State University</b>	205
3	Stanford University	110
<b>4</b>	<b>McNeese State University</b>	109
5	North Carolina State University	97
<b>6</b>	<b>University of Wisconsin - Stout</b>	96
7	Harvey Mudd College	83
<b>8</b>	<b>James Madison University</b>	75
8	Montana Technological University	75
<b>10</b>	<b>Geneva College</b>	66
11	Olivet Nazarene University	63
<b>12</b>	<b>Texas Christian University</b>	56
13	University of Detroit Mercy	44
<b>13</b>	<b>Walla Walla University</b>	44
15	Frostburg State University	43
<b>16</b>	<b>Hope College</b>	42
17	Smith College	39
<b>18</b>	<b>University of Southern Indiana</b>	36
19	Marshall University	35
<b>20</b>	<b>Vanderbilt University</b>	33
21	Swarthmore College	31
<b>21</b>	<b>University of Colorado Boulder</b>	31
21	University of North Carolina at Asheville	31
<b>24</b>	<b>Fort Lewis College</b>	30
25	Elizabethtown College	29
<b>25</b>	<b>Seattle University</b>	29
27	Western Carolina University	28
<b>28</b>	<b>John Brown University</b>	27
28	Minnesota State University-Mankato	27
<b>30</b>	<b>Loyola University Maryland</b>	26
31	Seattle Pacific University	25
<b>32</b>	<b>Oral Roberts University</b>	24
32	The University of Tennessee-Martin	24
<b>34</b>	<b>College of Staten Island CUNY</b>	22
34	The University of Mississippi	22
<b>34</b>	<b>University of Maryland Eastern Shore</b>	22
37	Northwest Nazarene University	21
<b>38</b>	<b>Bob Jones University</b>	19
39	Andrews University	16
<b>39</b>	<b>Trinity College</b>	16
41	Wentworth Institute of Technology	15
<b>42</b>	<b>California Polytechnic State University, San Luis Obispo</b>	13
43	University of Hartford	12
<b>44</b>	<b>Miami University</b>	11
44	Southern Arkansas University Main Campus	11
<b>44</b>	<b>University of Rochester</b>	11
47	Brown University	10
<b>48</b>	<b>Pennsylvania State University-Penn State Abington</b>	9
49	Pennsylvania State University-Penn State Hazleton	8
<b>49</b>	<b>The University of Tennessee-Chattanooga</b>	8

\* 129 Institutions included

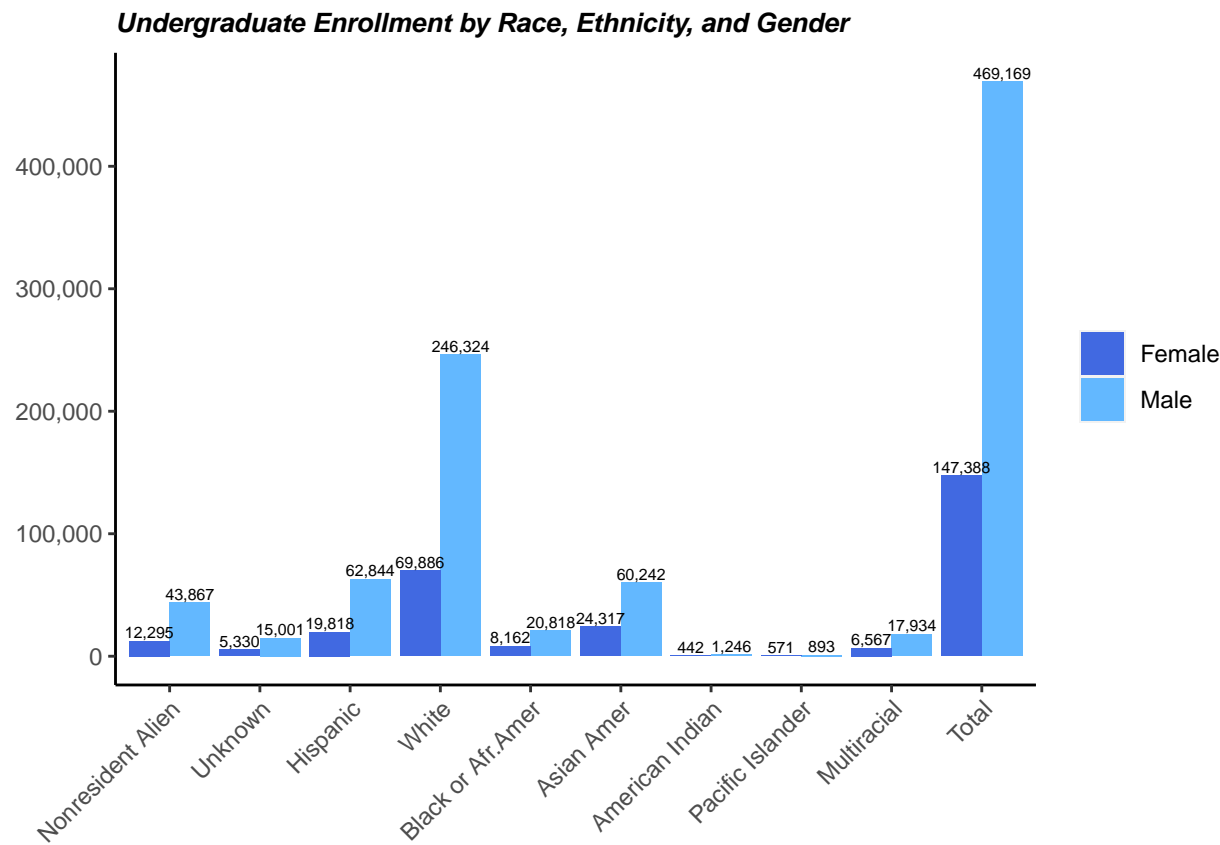
2.2 ENGINEERING UNDERGRADUATE ENROLLMENT, FALL 2019

2.2.1 Undergraduate Enrollment by Race, Ethnicity, and Gender

Table 29: Undergraduate Enrollment Awarded by Race, Ethnicity, and Gender 616,557\*

Ethnicity	Enrollments
Nonresident Alien Male	43,867
<b>Nonresident Alien Female</b>	12,295
Unknown Male	15,001
<b>Unknown Female</b>	5,330
Hispanic Male	62,844
<b>Hispanic Female</b>	19,818
White Male	246,324
<b>White Female</b>	69,886
Black or Afr. American Male	20,818
<b>Black or Afr. American Female</b>	8,162
Asian American Male	60,242
<b>Asian American Female</b>	24,317
American Indian Male	1,246
<b>American Indian Female</b>	442
Native Hawaiian/Other Pacific Islander Male	893
<b>Native Hawaiian/Other Pacific Islander Female</b>	571
Multiracial Male	17,934
<b>Multiracial Female</b>	6,567
Total Male	469,169
<b>Total Female</b>	147,388

\* Total Enrollment includes is for full time students  
\* Includes 3,193 male and 1,195 female.



2.2.2 Engineering Undergraduate Enrollment by Institutions

Table 30: Top 50 Engineering Undergraduate Enrollment by Institutions

No	Institutions	Enrollment
1	Texas A&M University	14,141
2	<b>Arizona State University</b>	14,107
3	Georgia Institute of Technology	11,583
4	<b>Purdue University</b>	11,386
5	University of Central Florida	10,816
6	<b>Virginia Polytechnic Institute and State University</b>	8,927
7	North Carolina State University	8,403
8	<b>The Pennsylvania State University</b>	8,182
9	University of Illinois at Urbana-Champaign	8,156
10	<b>Oregon State University</b>	7,943
11	The Ohio State University	7,931
12	<b>University of Florida</b>	7,892
13	The University of Texas at Austin	7,812
14	<b>California State University, Sacramento</b>	7,751
15	University of Arizona	7,610

Table 30: Top 50 Engineering Undergraduate Enrollment by Institutions (continued)

No	Institutions	Enrollment
<b>16</b>	<b>Iowa State University</b>	7,562
17	University of California, Irvine	7,461
<b>18</b>	<b>University of Michigan</b>	7,334
19	University of Maryland, College Park	6,797
<b>20</b>	<b>University of Wisconsin-Madison</b>	6,397
21	George Mason University	6,336
<b>22</b>	<b>California Polytechnic State University, San Luis Obispo</b>	6,318
23	The University of Texas at Dallas	6,273
<b>24</b>	<b>Northeastern University</b>	6,113
25	Michigan State University	6,108
<b>26</b>	<b>Florida International University</b>	6,062
27	University of California, San Diego	6,005
<b>28</b>	<b>University of California, Berkeley</b>	5,647
29	Auburn University	5,579
<b>29</b>	<b>The University of Alabama</b>	5,579
31	New Jersey Institute of Technology	5,470
<b>32</b>	<b>Clemson University</b>	5,338
33	University of Colorado Boulder	5,246
<b>34</b>	<b>Missouri University of Science and Technology</b>	5,232
35	University of South Florida	5,180
<b>36</b>	<b>Colorado School of Mines</b>	5,074
37	University of Washington in Seattle	5,062
<b>38</b>	<b>Rutgers, The State University of New Jersey, School of Engineering</b>	5,021
39	The University of Texas at Arlington	5,018
<b>40</b>	<b>Louisiana State University</b>	4,780
41	University of Puerto Rico, Mayaguez Campus	4,722
<b>42</b>	<b>California State University, Long Beach</b>	4,721
43	University of California, Davis	4,696
<b>44</b>	<b>Rensselaer Polytechnic Institute</b>	4,685
45	California State University, Northridge	4,611
<b>46</b>	<b>University of Minnesota -Twin Cities</b>	4,463
47	University of Cincinnati	4,451
<b>48</b>	<b>Brigham Young University - Idaho</b>	4,399
49	Drexel University	4,369
<b>50</b>	<b>Mississippi State University</b>	4,235

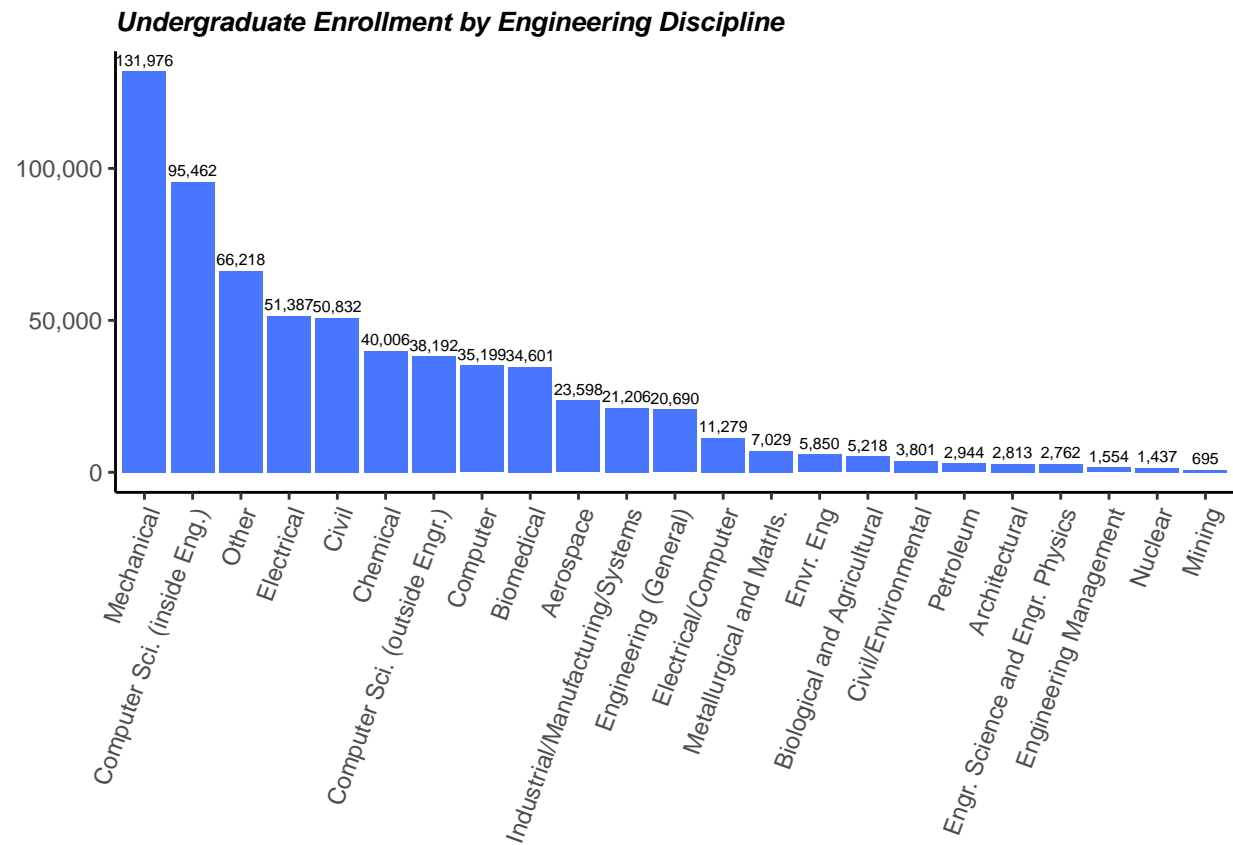
\* Enrollment is full time plus part time students.  
\* Some Institutions donot permit formal enrollment in their engineering colleges until the second or third year.

2.2.3 Undergraduate Enrollment by Engineering Discipline

Table 31: Undergraduate Enrollment by Engineering Discipline: 616,557

Discipline Name	Enrollments
Mechanical	131,976
<b>Computer Sci. (inside Eng.)</b>	95,462
Other	66,218
<b>Electrical</b>	51,387
Civil	50,832
<b>Chemical</b>	40,006
Computer Sci. (outside Engr.)	38,192
<b>Computer</b>	35,199
Biomedical	34,601
<b>Aerospace</b>	23,598
Industrial/Manufacturing/Systems	21,206
<b>Engineering (General)</b>	20,690
Electrical/Computer	11,279
<b>Metallurgical and Matrls.</b>	7,029
Envr. Eng	5,850
<b>Biological and Agricultural</b>	5,218
Civil/Environmental	3,801
<b>Petroleum</b>	2,944
Architectural	2,813
<b>Engr. Science and Engr. Physics</b>	2,762
Engineering Management	1,554
<b>Nuclear</b>	1,437
Mining	695

\* Total does not include Computer Science (outside engineering)  
\* Enrollment is for full-time bachelor’s degree candidates in engineering.



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

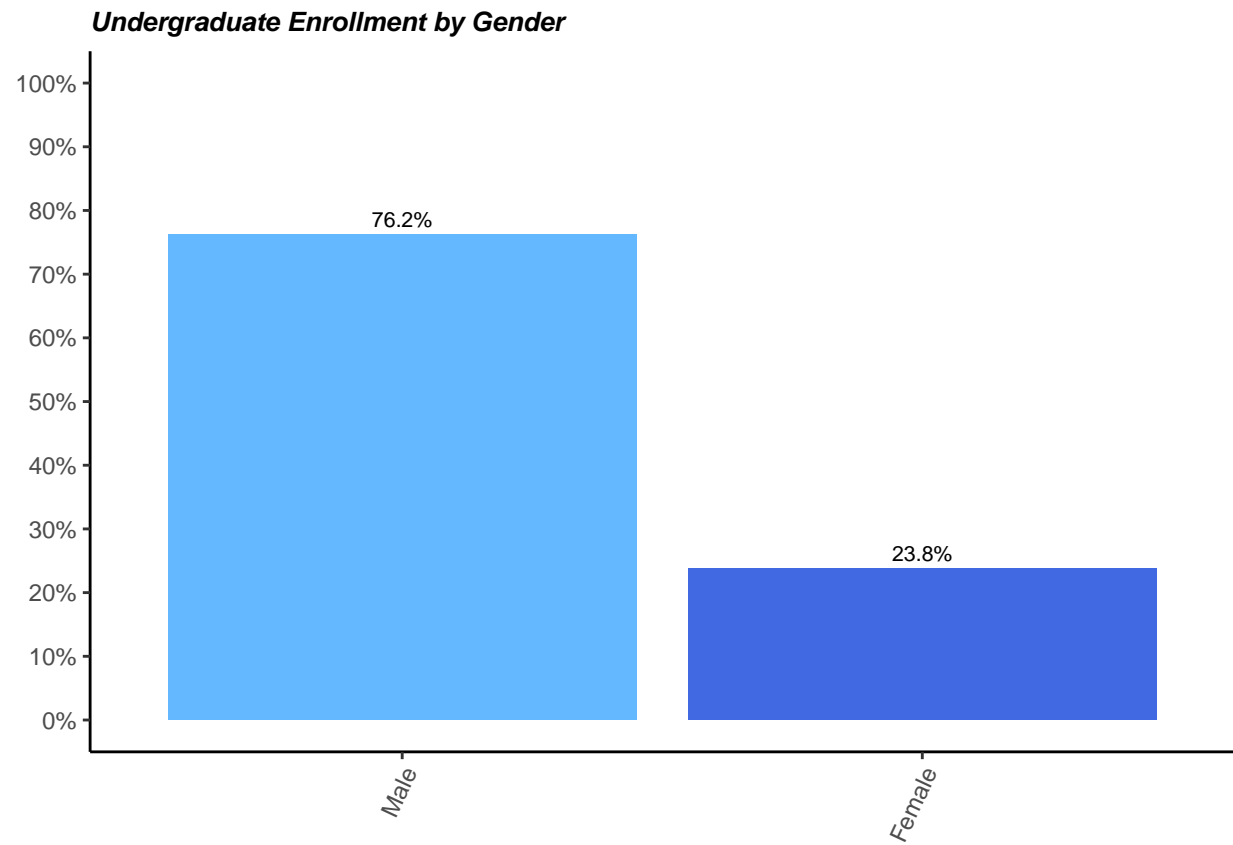
Table 32: Undergraduate Enrollment by Engineering Discipline:(Full time and Part time)

Discipline Name	Full Time	Part Time
Aerospace	23,598	1,428
<b>Architectural</b>	2,813	133
Biological and Agricultural	5,218	235
<b>Biomedical</b>	34,601	1,360
Chemical	40,006	2,607
<b>Civil</b>	50,832	5,183
Civil/Environmental	3,801	369
<b>Computer</b>	35,199	3,696
Computer Sci. (inside Eng.)	95,462	14,380
<b>Electrical</b>	51,387	8,118
Electrical/Computer	11,279	675
<b>Engineering (General)</b>	20,690	1,024
Engineering Management	1,554	81
<b>Engr. Science and Engr. Physics</b>	2,762	184
Envr. Eng	5,850	363
<b>Industrial/Manufacturing/Systems</b>	21,206	2,676
Mechanical	131,976	14,292
<b>Metallurgical and Matrls.</b>	7,029	445
Mining	695	83
<b>Nuclear</b>	1,437	97
Other	66,218	6,262
<b>Petroleum</b>	2,944	389

### 2.2.5 Undergraduate Enrollment by Gender

Table 33: Undergraduate Enrollment by Gender

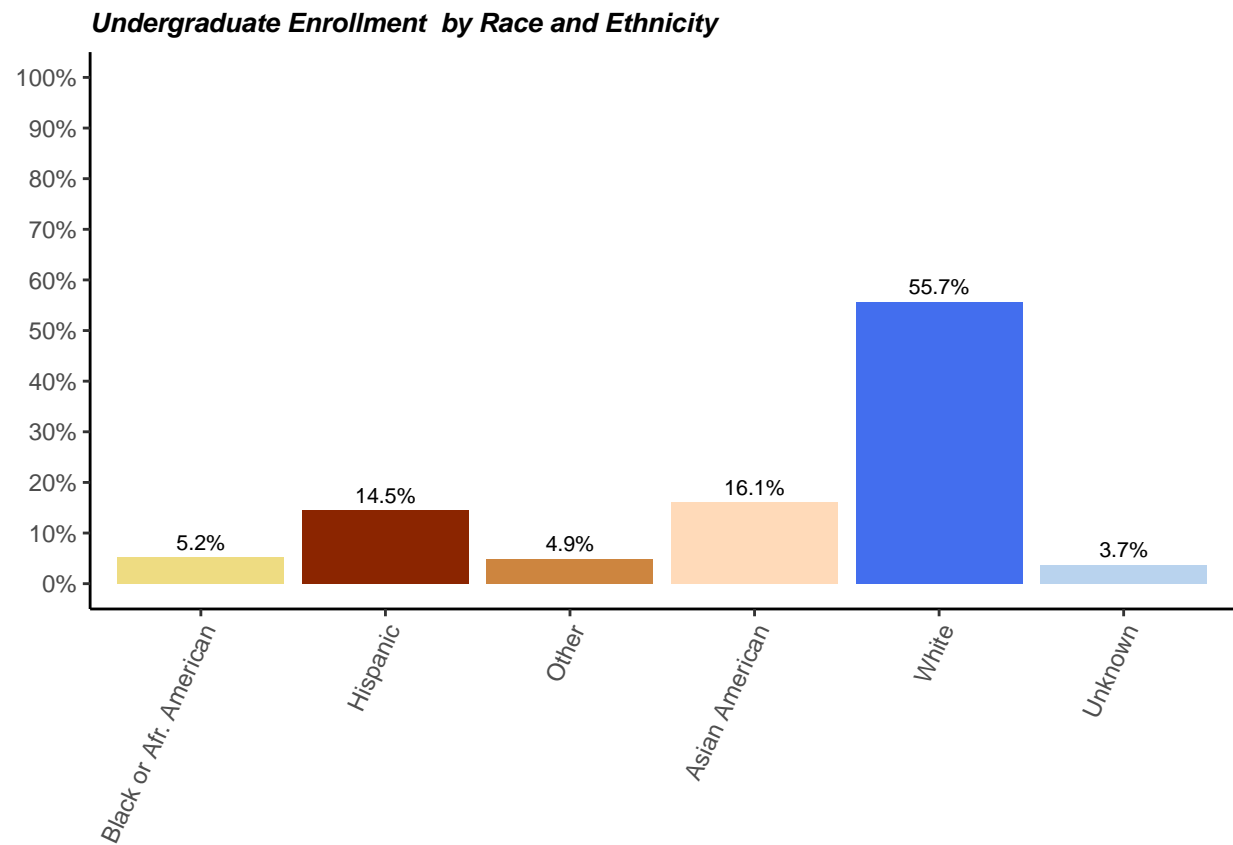
Gender	Percentage
Female	23.8%
Male	76.2%



2.2.6 Undergraduate Enrollment by Race and Ethnicity

Table 34: Undergraduate Enrollment by Race and Ethnicity\*

Ethnicity	Percentage
Black or Afr. American	5.2%
<b>Hispanic</b>	14.5%
Other	4.9%
<b>Asian American</b>	16.1%
White	55.7%
<b>Unknown</b>	3.7%



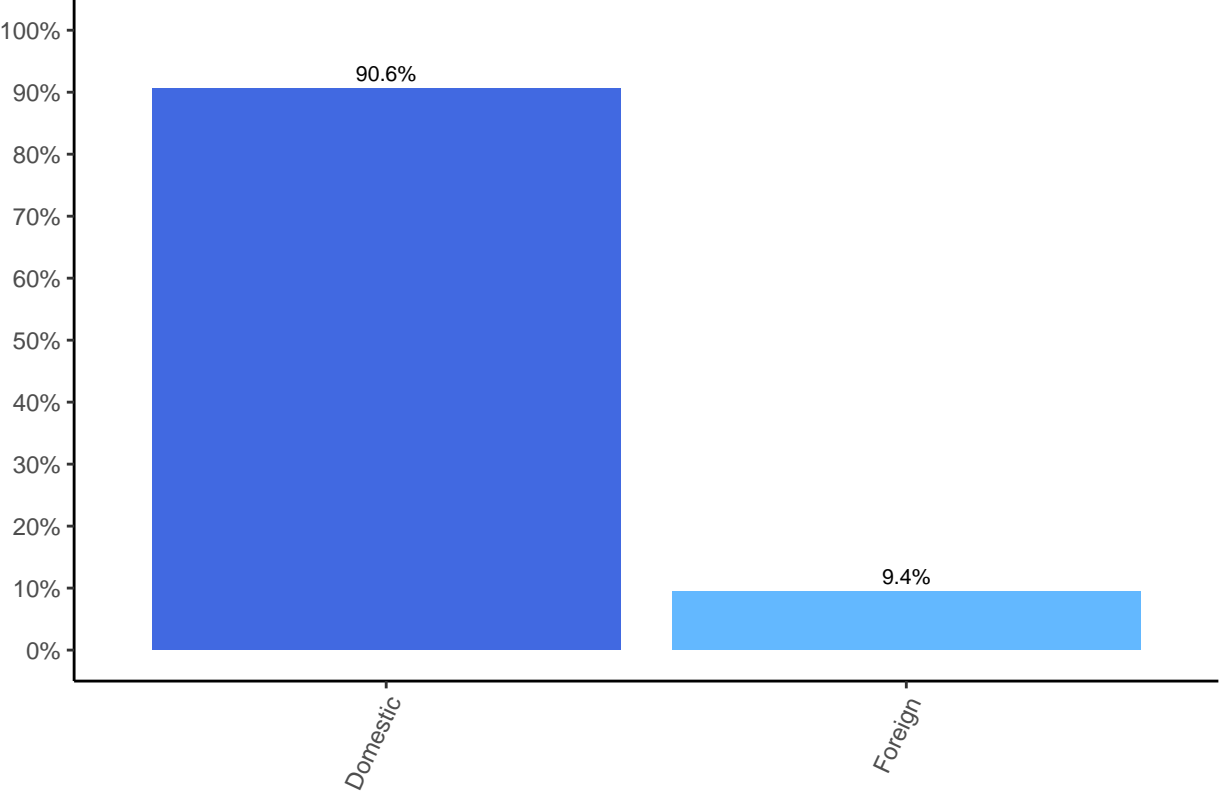
2.2.7 Undergraduate Enrollment by Residency

Table 35: Undergraduate Enrollment by Residency

Nationality	Percentage
Foreign	9.4%
Domestic	90.6%



***Undergraduate Enrollment by Residency***



3 ENGINEERING MASTERS

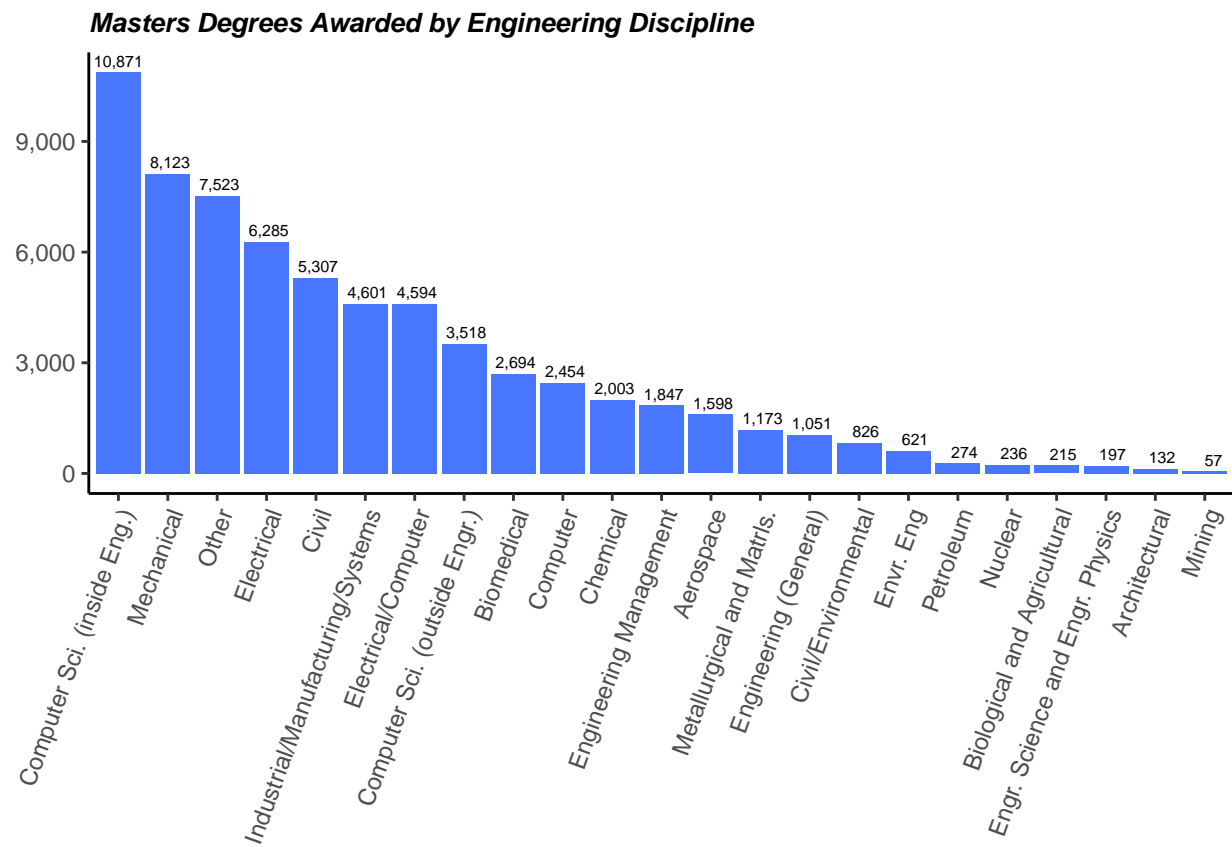
3.1 ENGINEERING MASTER’S DEGREE

3.1.1 Masters Degrees Awarded by Engineering Discipline

Table 36: Masters Degrees by discipline: 62,682

Discipline Name	Degrees Awarded
Computer Sci. (inside Eng.)	10,871
<b>Mechanical</b>	8,123
Other	7,523
<b>Electrical</b>	6,285
Civil	5,307
<b>Industrial/Manufacturing/Systems</b>	4,601
Electrical/Computer	4,594
<b>Computer Sci. (outside Engr.)</b>	3,518
Biomedical	2,694
<b>Computer</b>	2,454
Chemical	2,003
<b>Engineering Management</b>	1,847
Aerospace	1,598
<b>Metallurgical and Matrls.</b>	1,173
Engineering (General)	1,051
<b>Civil/Environmental</b>	826
Envr. Eng	621
<b>Petroleum</b>	274
Nuclear	236
<b>Biological and Agricultural</b>	215
Engr. Science and Engr. Physics	197
<b>Architectural</b>	132
Mining	57

\* Total does not include computer science (outside engineering).



3.1.2 Total Master’s Degrees Awarded to Underrepresented Minorities by Engineering Discipline

Table 37: Master’s Degrees Awarded to Underrepresented Minorities by Engineering Discipline: 4,278

Discipline Name	Degrees Awarded
Other	592
<b>Mechanical</b>	577
Civil	537
<b>Computer Sci. (inside Eng.)</b>	474
Industrial/Manufacturing/Systems	339
<b>Electrical</b>	314
Biomedical	235
<b>Engineering Management</b>	223
Electrical/Computer	213
<b>Aerospace</b>	139
Chemical	133
<b>Computer Sci. (outside Engr.)</b>	124
Engineering (General)	121
<b>Computer</b>	85
Metallurgical and Matrls.	83
<b>Civil/Environmental</b>	65
Envr. Eng	65
<b>Petroleum</b>	24
Nuclear	20
<b>Architectural</b>	13
Biological and Agricultural	12
<b>Engr. Science and Engr. Physics</b>	12
Mining	2

\* Total does not include computer science (outside engineering).

3.1.3 Percentage of Master’s Degrees Awarded to Underrepresented Minorities by Discipline

Table 38: Percentage of Master’s Degrees Awarded to Underrepresented Minorities by Discipline 6.6 % of Total

Discipline Name	Percent Women
Engineering Management	12.1%
<b>Engineering (General)</b>	11.5%
Envr. Eng	10.5%
<b>Civil</b>	10.1%
Architectural	9.8%
<b>Petroleum</b>	8.8%
Aerospace	8.7%
<b>Biomedical</b>	8.7%
Nuclear	8.5%
<b>Civil/Environmental</b>	7.9%
Other	7.9%
<b>Industrial/Manufacturing/Systems</b>	7.4%
Mechanical	7.1%
<b>Metallurgical and Matrls.</b>	7.1%
Chemical	6.6%
<b>Engr. Science and Engr. Physics</b>	6.1%
Biological and Agricultural	5.6%
<b>Electrical</b>	5%
Electrical/Computer	4.6%
<b>Computer Sci. (inside Eng.)</b>	4.4%
Computer	3.5%
<b>Computer Sci. (outside Engr.)</b>	3.5%
Mining	3.5%

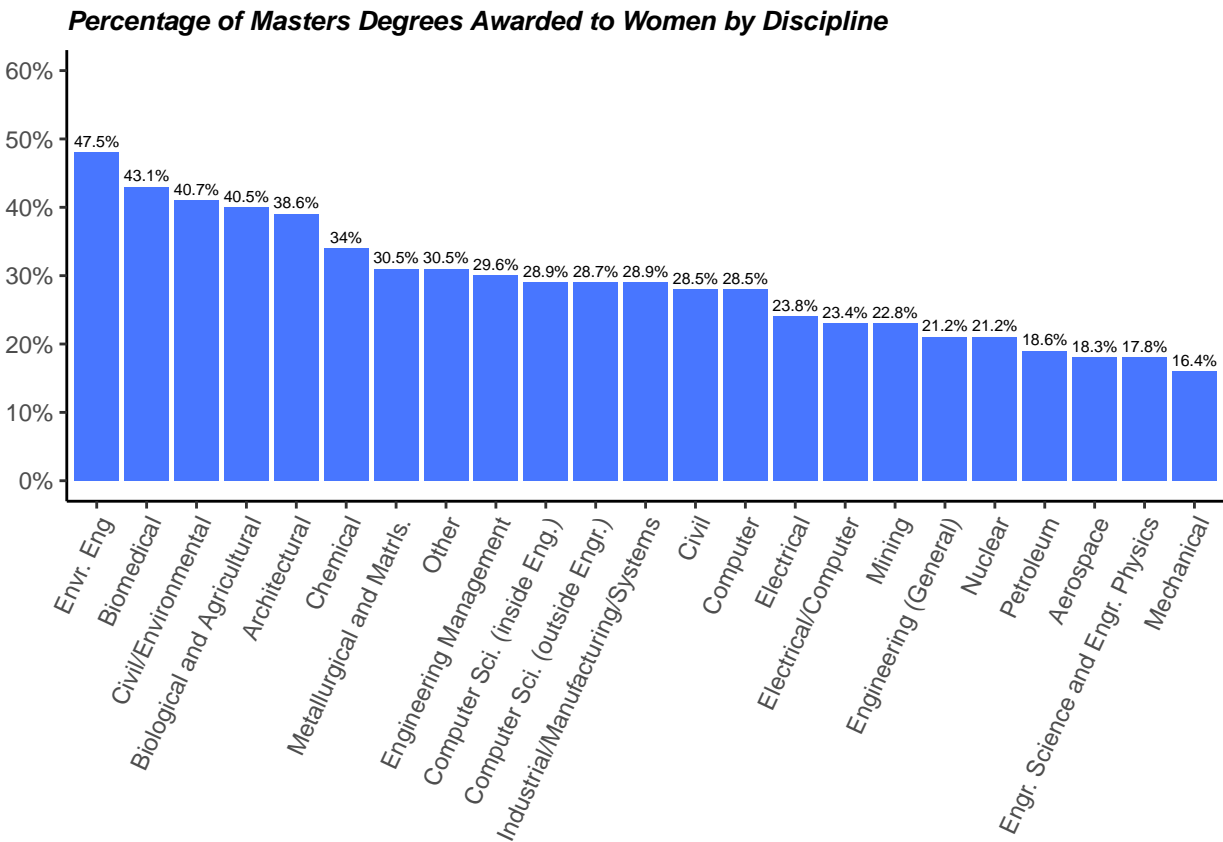
3.1.4 Percentage of Master’s Degrees Awarded to Women by Discipline

Table 39: Percentage of Masters Degrees Awarded to Women by Discipline 27.3 % of Total

Discipline Name	Percent Women
Envr. Eng	47.5%
<b>Biomedical</b>	43.1%
Civil/Environmental	40.7%
<b>Biological and Agricultural</b>	40.5%
Architectural	38.6%
<b>Chemical</b>	34%
Metallurgical and Matrls.	30.5%
<b>Other</b>	30.5%
Engineering Management	29.6%

Table 39: Percentage of Masters Degrees Awarded to Women by Discipline 27.3 % of Total *(continued)*

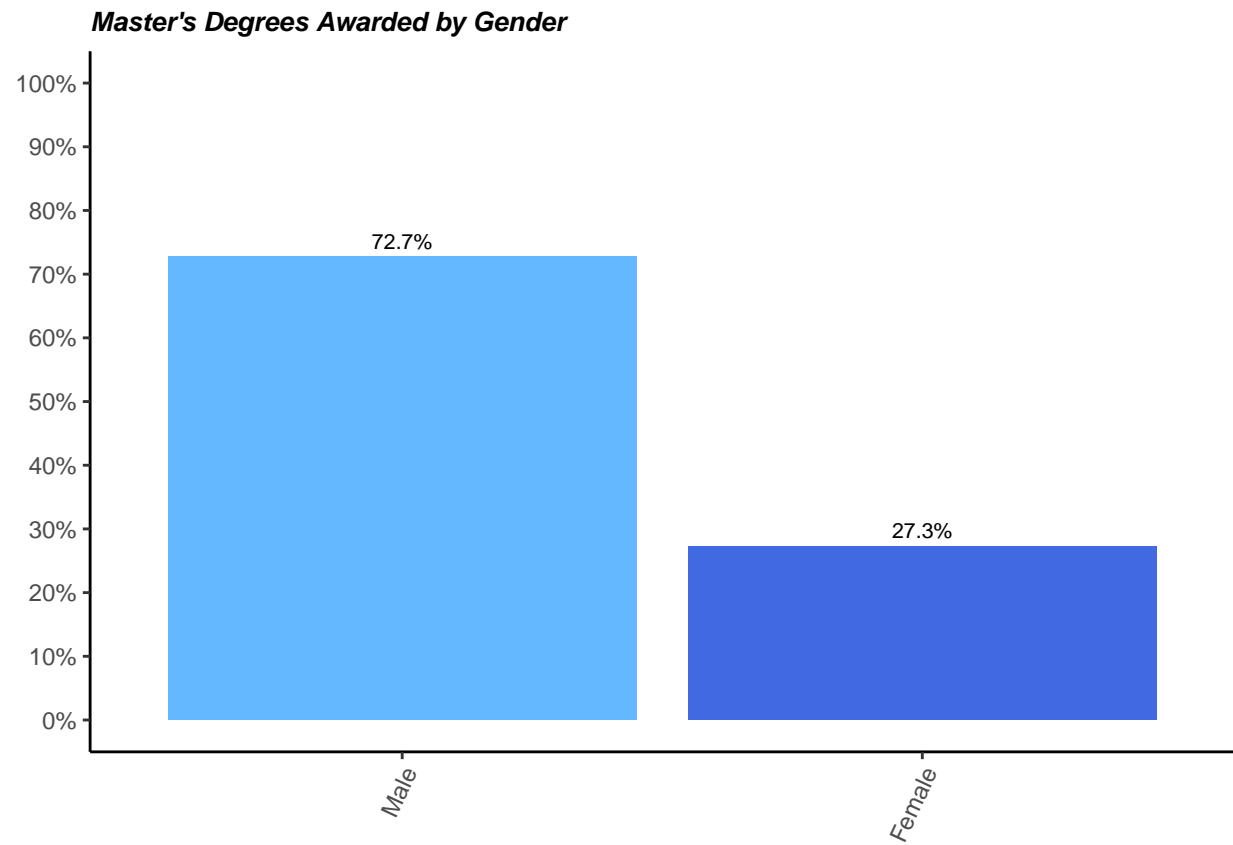
Discipline Name	Percent Women
<b>Computer Sci. (inside Eng.)</b>	28.9%
Industrial/Manufacturing/Systems	28.9%
<b>Computer Sci. (outside Engr.)</b>	28.7%
Civil	28.5%
<b>Computer</b>	28.5%
Electrical	23.8%
<b>Electrical/Computer</b>	23.4%
Mining	22.8%
<b>Engineering (General)</b>	21.2%
Nuclear	21.2%
<b>Petroleum</b>	18.6%
Aerospace	18.3%
<b>Engr. Science and Engr. Physics</b>	17.8%
Mechanical	16.4%



3.1.5 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
Female	23.00%	22.60%	22.60%	23.10%	23.90%	24.20%	25.40%	25.70%	26.70%	27.30%
Male	77.00%	77.40%	81.60%	76.90%	76.10%	75.80%	74.60%	74.30%	73.30%	72.70%

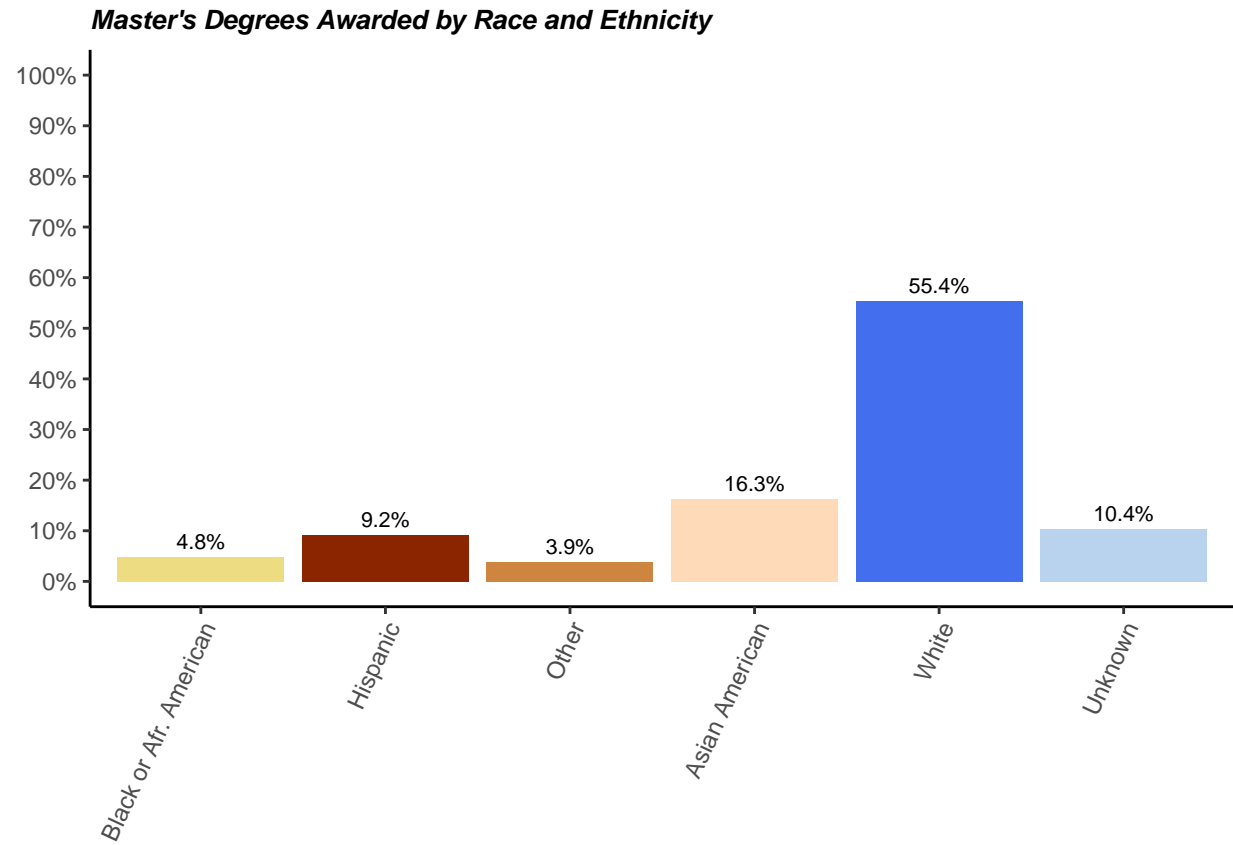


3.1.6 Master’s Degrees Awarded by Race and Ethnicity

Table 41: Master’s Degrees Awarded by Ethnicity

Ethnicity	2011	2012	2013	2014	2015	2016	2017	2018	2019
Black or Afr. American	5.1%	4.9%	4.7%	4.7%	4.4%	4.7%	4.7%	4.8%	4.8%
<b>Hispanic</b>	6.0%	6.3%	7.3%	7.6%	7.7%	8.3%	8.5%	8.8%	9.2%
Other	1.4%	1.5%	2.0%	2.2%	2.6%	3.0%	3.1%	3.8%	3.9%
<b>Asian American</b>	14.9%	15.5%	14.5%	15.0%	14.5%	15.1%	15.1%	15.8%	16.3%
White	60.9%	58.2%	59.7%	59.5%	60.2%	59.5%	60.1%	58.2%	55.4%
<b>Unknown</b>	11.7%	13.6%	11.8%	11.0%	10.6%	9.4%	8.4%	8.6%	10.4%

\*Data on ethnicity does not include foreign nationals. American Indian/Alaska Native (0.2%), Native Hawaiian/Other Pacific Islander(0.1%) and Multiracial (3.6%) are combined under Other.

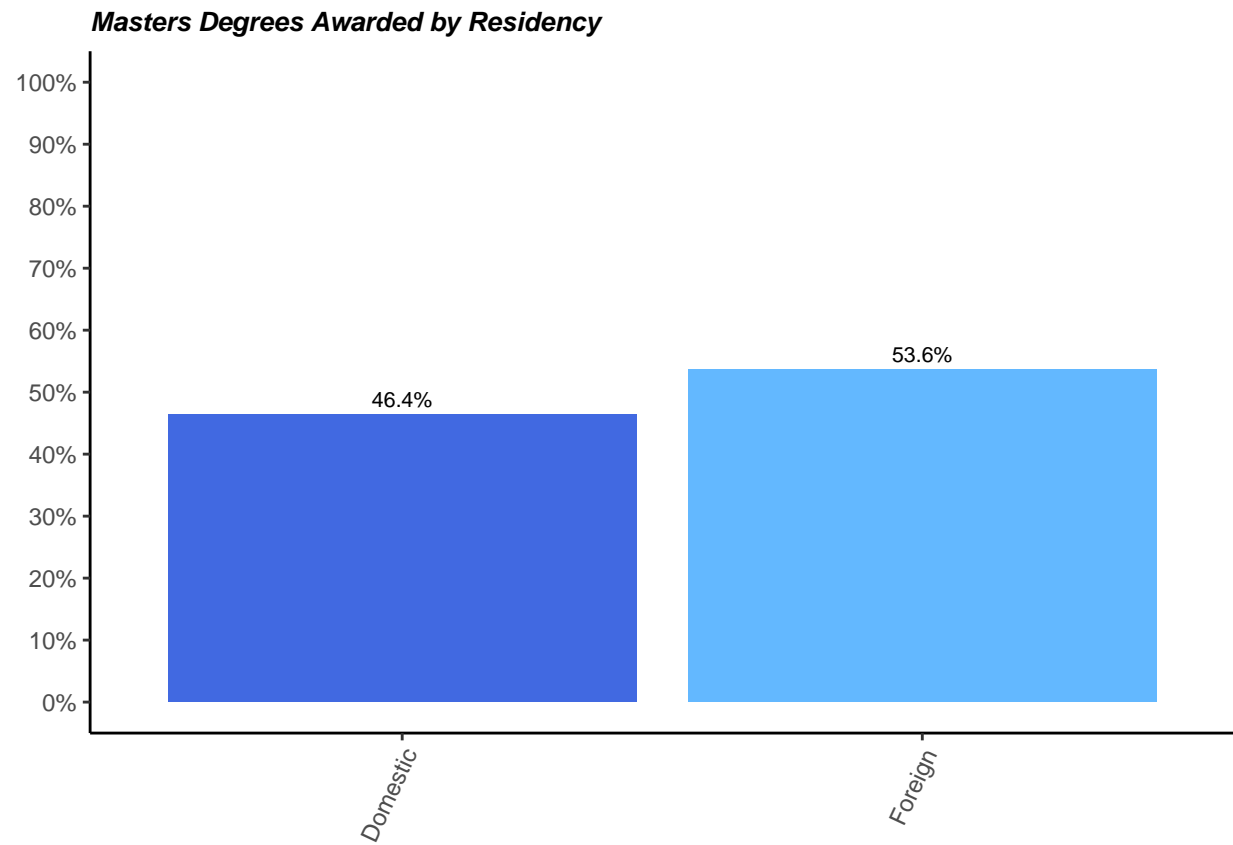


3.1.7 Masters Degrees Awarded by Residency

Table 42: Masters Degrees Awarded by Residency

Nationality	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Foreign	46.1%	44.4%	43.3%	45.3%	47.5%	52.6%	58.1%	59.2%	57.1%	53.6%
<b>Domestic</b>	53.9%	55.6%	56.7%	54.7%	52.5%	47.4%	41.9%	40.8%	42.9%	46.4%





3.1.8 Master’s Degrees Awarded by Race, Ethnicity, and Gender

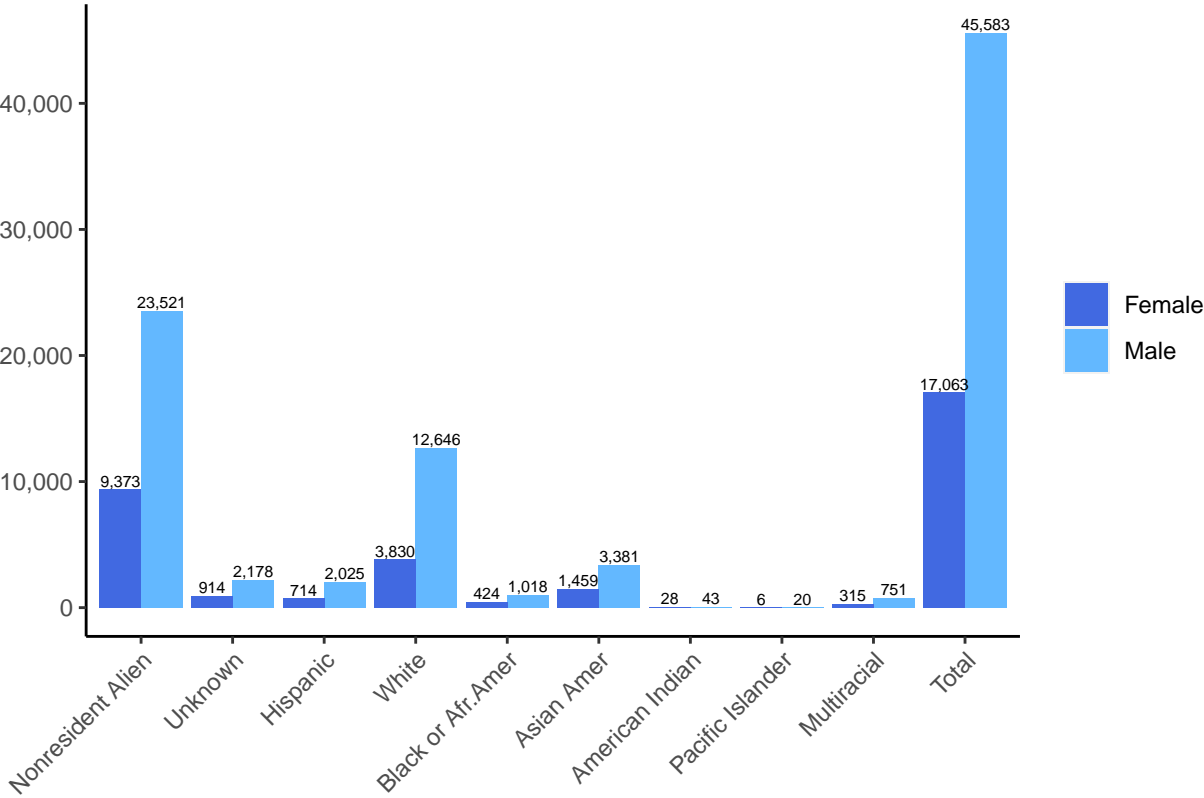
Table 43: Master’s Degrees Awarded by Race, Ethnicity, and Gender 62,682\*

Ethnicity	Degrees Awarded
Nonresident Alien Male	23,521
<b>Nonresident Alien Female</b>	9,373
Unknown Male	2,178
<b>Unknown Female</b>	914
Hispanic Male	2,025
<b>Hispanic Female</b>	714
White Male	12,646
<b>White Female</b>	3,830
Black or Afr. American Male	1,018
<b>Black or Afr. American Female</b>	424
Asian American Male	3,381
<b>Asian American Female</b>	1,459
American Indian Male	43
<b>American Indian Female</b>	28
Native Hawaiian/Other Pacific Islander Male	20
<b>Native Hawaiian/Other Pacific Islander Female</b>	6
Multiracial Male	751
<b>Multiracial Female</b>	315
Total Male	45,583
<b>Total Female</b>	17,063

\* Total degree includes 0 total Non binary graduates and 36 total Other Gender graduates.

\* Includes 34 male and22 female graduates from Puerto Rico.

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



3.1.9 Top 50 Institutions Awarding Engineering Masters Degrees

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

No	Institutions	Degrees Awarded
1	University of Southern California	2,366
2	Northeastern University	1,917
3	Carnegie Mellon University	1,646
4	Columbia University	1,486
5	Georgia Institute of Technology	1,481
6	The Johns Hopkins University	1,392
7	Arizona State University	1,331
8	University of Michigan	1,311
9	Stanford University	1,166
10	University of Illinois at Urbana-Champaign	1,101
11	Cornell University	1,036
12	San Jose State University	961
13	Stevens Institute of Technology	936
14	New Jersey Institute of Technology	928
15	North Carolina State University	913
16	The University of Texas at Arlington	910
17	University of California, Berkeley	897
18	Texas A&M University	895
19	University of California, San Diego	892
20	University of Florida	823
21	Massachusetts Institute of Technology	821
22	NYU Tandon School of Engineering	782
23	The University of Texas at Dallas	758
24	Stony Brook University	743
25	University of California, Los Angeles	731
26	Purdue University	730
27	University of Washington in Seattle	724
28	Northwestern University	683
29	University of Pennsylvania	663
30	University of Colorado Boulder	628
31	University of Illinois at Chicago	594
32	Worcester Polytechnic Institute	560
33	George Mason University	539
34	The George Washington University	531
35	University of Maryland, College Park	523
36	University of California, Irvine	510
37	Virginia Polytechnic Institute and State University	489
38	The Ohio State University	464
38	University of Wisconsin-Madison	464
40	The University of Texas at Austin	461
41	Missouri University of Science and Technology	456
42	University of Minnesota -Twin Cities	455
43	University of South Florida	454
44	Boston University	440
45	Rutgers, The State University of New Jersey, School of Engineering	436
46	California State University, Fullerton	432
47	Rochester Institute of Technology	424
48	Duke University	420
49	Southern Methodist University	417
50	University of Cincinnati	412

Table 44: Top 50 Institutions Awarding Engineering Master’s Degr  
(continued)

No	Institutions	Degrees Awarded
* 422 Institutions included		

3.1.10 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	Degrees Awarded
1	The University of Texas at El Paso	137
2	<b>Florida International University</b>	131
2	The Johns Hopkins University	131
4	<b>New Jersey Institute of Technology</b>	117
5	Stanford University	98
6	<b>University of Central Florida</b>	89
7	Georgia Institute of Technology	88
8	<b>Arizona State University</b>	85
8	University of Southern California	85
10	<b>Cornell University</b>	70
11	University of Florida	69
12	<b>University of Michigan</b>	68
13	Carnegie Mellon University	63
14	<b>California State University, Fullerton</b>	58
15	Texas A&M University	57
15	<b>University of California, San Diego</b>	57
17	University of Puerto Rico, Mayaguez Campus	56
18	<b>Massachusetts Institute of Technology</b>	55
19	University of Washington in Seattle	53
20	<b>University of Maryland, Baltimore County</b>	49

\* 422 Institutions included

3.1.11 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

No	Institutions	Percent Underrepresented Minorities
1	University of Puerto Rico, Mayaguez Campus	100%
2	<b>Alabama A &amp; M University</b>	88.9%
3	Norfolk State University	66.7%
3	<b>Tuskegee University</b>	66.7%
5	The University of Texas at El Paso	65.6%
6	<b>The University of Texas Rio Grande Valley</b>	64.9%
7	Southern University and A & M College	60%
8	<b>North Carolina A&amp;T State University</b>	57.7%
9	Jackson State University	53.8%
10	<b>Capitol Technology University</b>	50%
11	Florida International University	47.8%
12	<b>Prairie View A &amp; M University</b>	44.4%
13	University of San Diego	40%
13	<b>University of the District of Columbia</b>	40%
15	Howard University	37.5%
15	<b>Norwich University</b>	37.5%
17	Kennesaw State University	32.5%
18	<b>Loyola Marymount University</b>	29.2%
19	Gonzaga University	28.6%
19	<b>Texas A &amp; M University-Corpus Christi</b>	28.6%
19	Thomas Jefferson University	28.6%
22	<b>Florida Atlantic University</b>	28%
23	St. Mary’s University	26.3%
24	<b>The University of Texas at San Antonio</b>	25.2%
25	Lipscomb University	25%
25	<b>Mississippi College</b>	25%
27	Embry-Riddle Aeronautical University-Worldwide	23.7%
28	<b>University of Central Florida</b>	22.8%
29	The University of New Mexico	22.3%
30	<b>The University of Tennessee-Chattanooga</b>	22.2%
31	City College of the City University of New York	21.4%
32	<b>Morgan State University</b>	20.8%
33	Fairleigh Dickinson University-Metropolitan Campus	20%
33	<b>SUNY Polytechnic Institute</b>	20%
35	University of Miami	18.9%
36	<b>Princeton University</b>	17.4%
37	Pace University	16.7%
37	<b>University of Southern Mississippi</b>	16.7%
39	Tennessee State University	15.8%
40	<b>Northern Arizona University</b>	15.4%
41	University of Saint Thomas	15.2%
42	<b>Old Dominion University</b>	15.1%
43	California State University, Los Angeles	14.9%

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

No	Institutions	Percent Underrepresented Minorities
<a href="#">44</a>	<b>University of Louisiana at Lafayette</b>	14.7%
45	University of California, Riverside	14.4%
<a href="#">46</a>	<b>Colorado State University-Pueblo</b>	14.3%
46	Georgia Southern University	14.3%
<a href="#">46</a>	<b>Oregon Institute of Technology</b>	14.3%
46	The University of Texas at Tyler	14.3%
<a href="#">46</a>	<b>University of Central Oklahoma</b>	14.3%

\* 422 Institutions included

3.1.12 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	West Texas A & M University	100%
<a href="#">2</a>	<b>Thomas Jefferson University</b>	85.7%
3	Fairleigh Dickinson University-Metropolitan Campus	80%
<a href="#">4</a>	<b>Texas A &amp; M University-Corpus Christi</b>	57.1%
5	University of Washington-Tacoma	56.8%
<a href="#">6</a>	<b>University of Georgia</b>	53.3%
7	Capitol Technology University	50%
<a href="#">7</a>	<b>Central Connecticut State University</b>	50%
7	Lipscomb University	50%
<a href="#">7</a>	<b>Pennsylvania State University-Penn State Great Valley</b>	50%
7	Tulane University	50%
<a href="#">7</a>	<b>University of South Dakota</b>	50%
13	Dartmouth College	46.2%
<a href="#">14</a>	<b>The University of Memphis</b>	44.4%
15	Monmouth University	43.8%
<a href="#">16</a>	<b>Tufts University</b>	43.5%
17	Princeton University	43.5%
<a href="#">18</a>	<b>University of California, Merced</b>	43.3%
19	Georgia Southern University	42.9%
<a href="#">19</a>	<b>University of Central Oklahoma</b>	42.9%

\* 422 included

3.1.13 Top 20 Institutions by Total Masters’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	Old Dominion University	100
<a href="#">2</a>	<b>Lamar University</b>	95
3	Arizona State University	90
<a href="#">4</a>	<b>Oklahoma Christian University</b>	60
5	University of Oklahoma, Gallogly College of Engineering	41
<a href="#">6</a>	<b>San Francisco State University</b>	40
7	University of Arkansas	39
<a href="#">7</a>	<b>University of Wisconsin, Platteville</b>	39
9	California State University-Fresno	37
<a href="#">10</a>	<b>Marshall University</b>	32
10	University of the Pacific	32
<a href="#">12</a>	<b>Villanova University</b>	30
13	Eastern Michigan University	27
<a href="#">13</a>	<b>The University of Tennessee-Chattanooga</b>	27
15	University of Massachusetts Lowell	24
<a href="#">16</a>	<b>Prairie View A &amp; M University</b>	23
16	Purdue University Fort Wayne	23
<a href="#">18</a>	<b>Texas State University</b>	22
19	University of Georgia	21
<a href="#">20</a>	<b>Case Western Reserve University</b>	19

\* 129 Institutions included

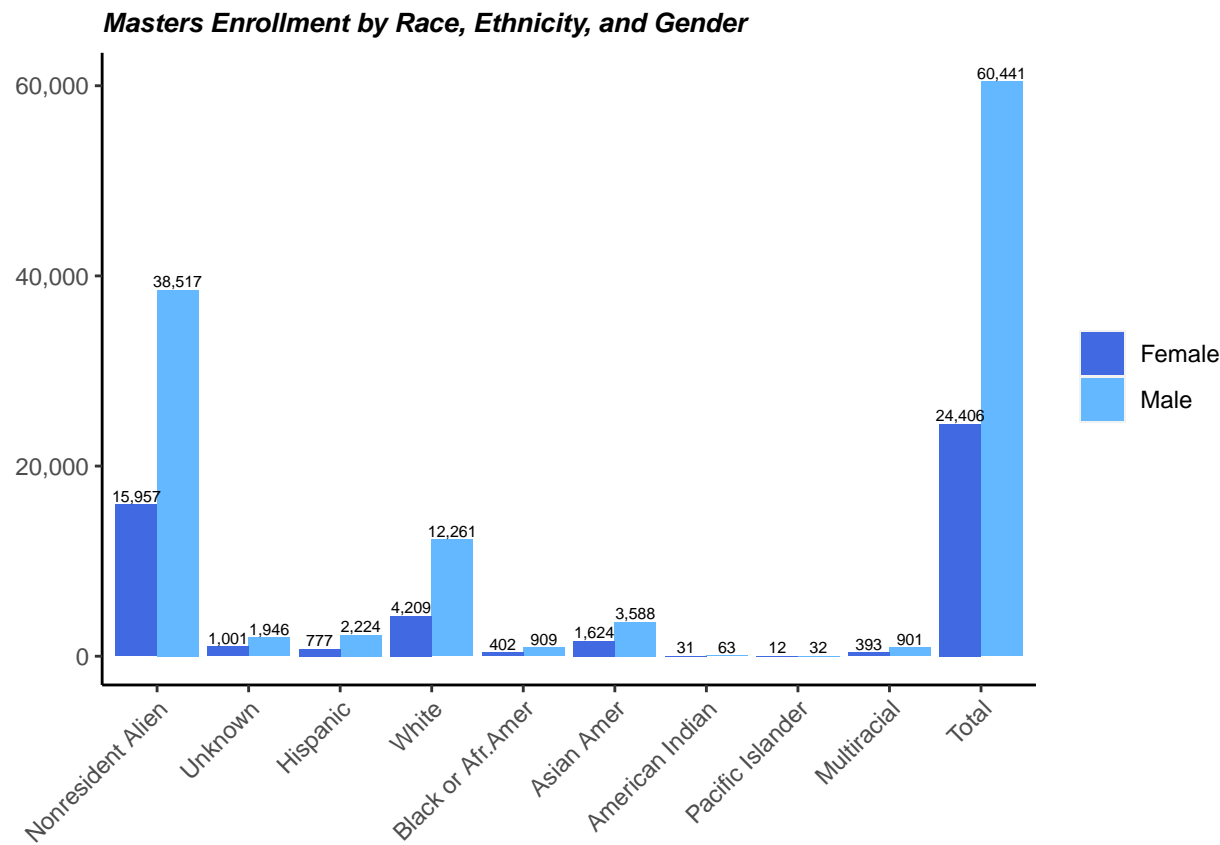
3.2 ENGINEERING MASTER’S ENROLLMENT

3.2.1 Masters Enrollment by Race, Ethnicity, and Gender

Table 49: Master’s Enrollment Awarded by Race, Ethnicity, and Gender 84,847\*

Ethnicity	Enrollments
Nonresident Alien Male	38,517
<b>Nonresident Alien Female</b>	15,957
Unknown Male	1,946
<b>Unknown Female</b>	1,001
Hispanic Male	2,224
<b>Hispanic Female</b>	777
White Male	12,261
<b>White Female</b>	4,209
Black or Afr. American Male	909
<b>Black or Afr. American Female</b>	402
Asian American Male	3,588
<b>Asian American Female</b>	1,624
American Indian Male	63
<b>American Indian Female</b>	31
Native Hawaiian/Other Pacific Islander Male	32
<b>Native Hawaiian/Other Pacific Islander Female</b>	12
Multiracial Male	901
<b>Multiracial Female</b>	393
Total Male	60,441
<b>Total Female</b>	24,406

\* Total Enrollment includes is for full time students  
\* Includes 112 male and 44 female.



3.2.2 Top 50 Institutions with Highest Graduate Enrollment

Table 50: Top 50 Institutions with Highest Graduate Enrollment\*

No	Institutions	Enrollment
1	Northeastern University	6,681
<b>2</b>	<b>University of Southern California</b>	6,199
3	Georgia Institute of Technology	5,204
<b>4</b>	<b>The Johns Hopkins University</b>	4,882
5	University of Illinois at Urbana-Champaign	4,596
<b>6</b>	<b>Arizona State University</b>	4,353
7	Carnegie Mellon University	4,263
<b>8</b>	<b>Columbia University</b>	4,115
9	Purdue University	4,110
<b>10</b>	<b>Texas A&amp;M University</b>	3,690
11	Stanford University	3,637
<b>12</b>	<b>North Carolina State University</b>	3,574
13	University of Michigan	3,531
<b>14</b>	<b>University of Arizona</b>	3,186
15	University of California, San Diego	3,174
<b>16</b>	<b>Massachusetts Institute of Technology</b>	3,140



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

No	Institutions	Enrollment
17	NYU Tandon School of Engineering	2,878
18	<b>University of Washington in Seattle</b>	2,781
19	University of Florida	2,619
20	<b>The University of Texas at Arlington</b>	2,568
21	Cornell University	2,557
22	<b>The University of Texas at Austin</b>	2,549
23	University of California, Berkeley	2,373
24	<b>Virginia Polytechnic Institute and State University</b>	2,206
25	University of Pennsylvania	2,199
26	<b>Northwestern University</b>	2,198
27	The University of Texas at Dallas	2,195
28	<b>University of California, Los Angeles</b>	2,193
29	San Jose State University	2,184
30	<b>The Pennsylvania State University</b>	2,167
31	University of Maryland, College Park	2,102
32	<b>University of Colorado Boulder</b>	2,097
33	New Jersey Institute of Technology	2,005
34	<b>Stevens Institute of Technology</b>	1,961
35	The George Washington University	1,949
36	<b>University of Wisconsin-Madison</b>	1,858
37	The Ohio State University	1,812
38	<b>George Mason University</b>	1,782
39	University of Minnesota -Twin Cities	1,776
40	<b>University of Central Florida</b>	1,754
41	University of California, Irvine	1,696
42	<b>Stony Brook University</b>	1,574
43	University at Buffalo, SUNY	1,567
44	<b>Clemson University</b>	1,534
45	Washington University in St. Louis	1,474
46	<b>Duke University</b>	1,462
47	Colorado School of Mines	1,384
48	<b>Boston University</b>	1,344
49	Iowa State University	1,340
50	<b>University of Utah</b>	1,321

\* 50 Institutions reported.Includes both part-time and full-time.

3.2.3 Masters Enrollment by Engineering Discipline:(Full time and Part time)

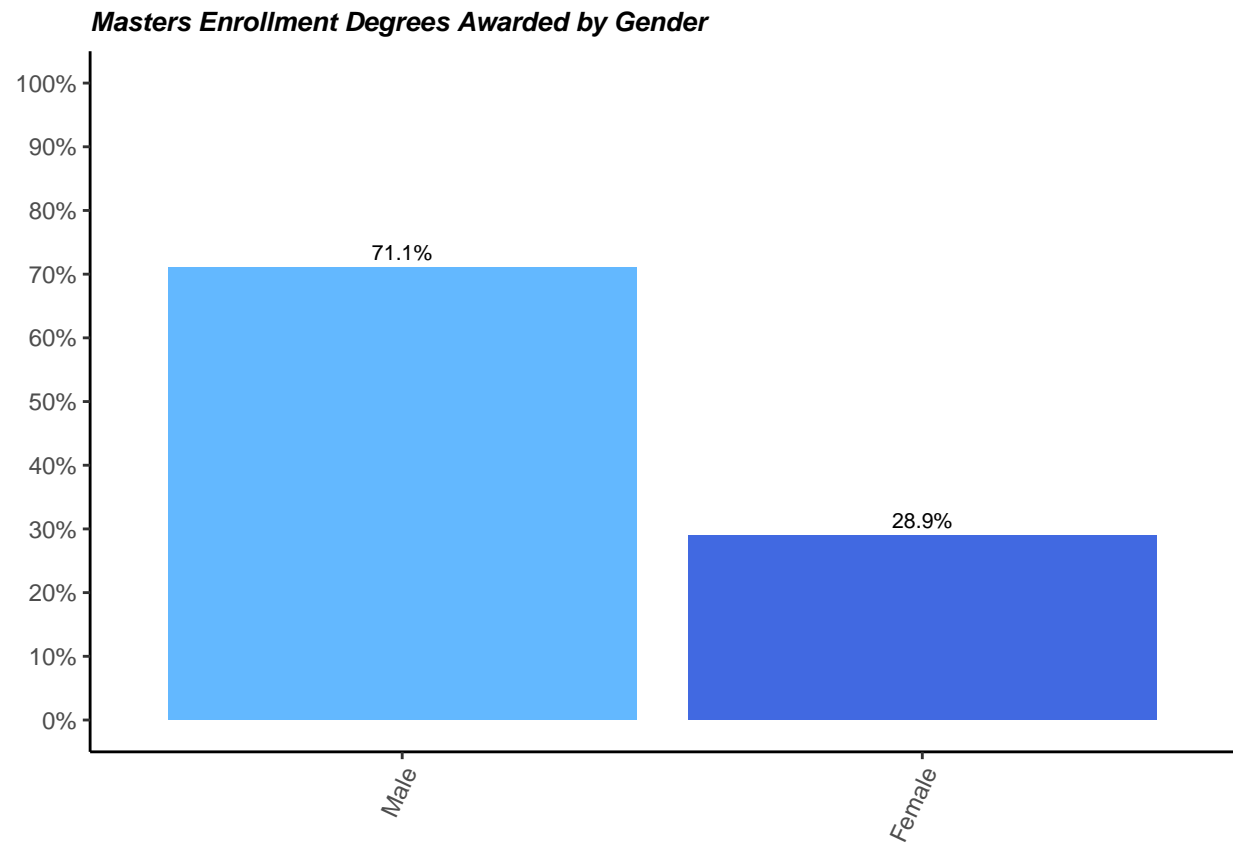
Table 51: Masters Enrollment by Engineering Discipline:(Full time and Part time)

Discipline Name	Full Time	Part Time
Aerospace	2,164	1,415
<b>Architectural</b>	127	27
Biological and Agricultural	449	109
<b>Biomedical</b>	3,548	939
Chemical	2,237	640
<b>Civil</b>	5,819	3,266
Civil/Environmental	1,237	318
<b>Computer</b>	3,404	1,281
Computer Sci. (inside Eng.)	19,291	8,006
<b>Electrical</b>	8,000	3,801
Electrical/Computer	6,478	2,387
<b>Engineering (General)</b>	788	1,105
Engineering Management	2,530	3,110
<b>Engr. Science and Engr. Physics</b>	155	156
Envr. Eng	707	495
<b>Industrial/Manufacturing/Systems</b>	5,461	4,091
Mechanical	10,271	5,280
<b>Metallurgical and Matrls.</b>	1,563	579
Mining	79	48
<b>Nuclear</b>	305	175
Other	9,896	5,228
<b>Petroleum</b>	338	123

3.2.4 Masters Enrollment by Gender

Table 52: Masters Enrollment by Gender

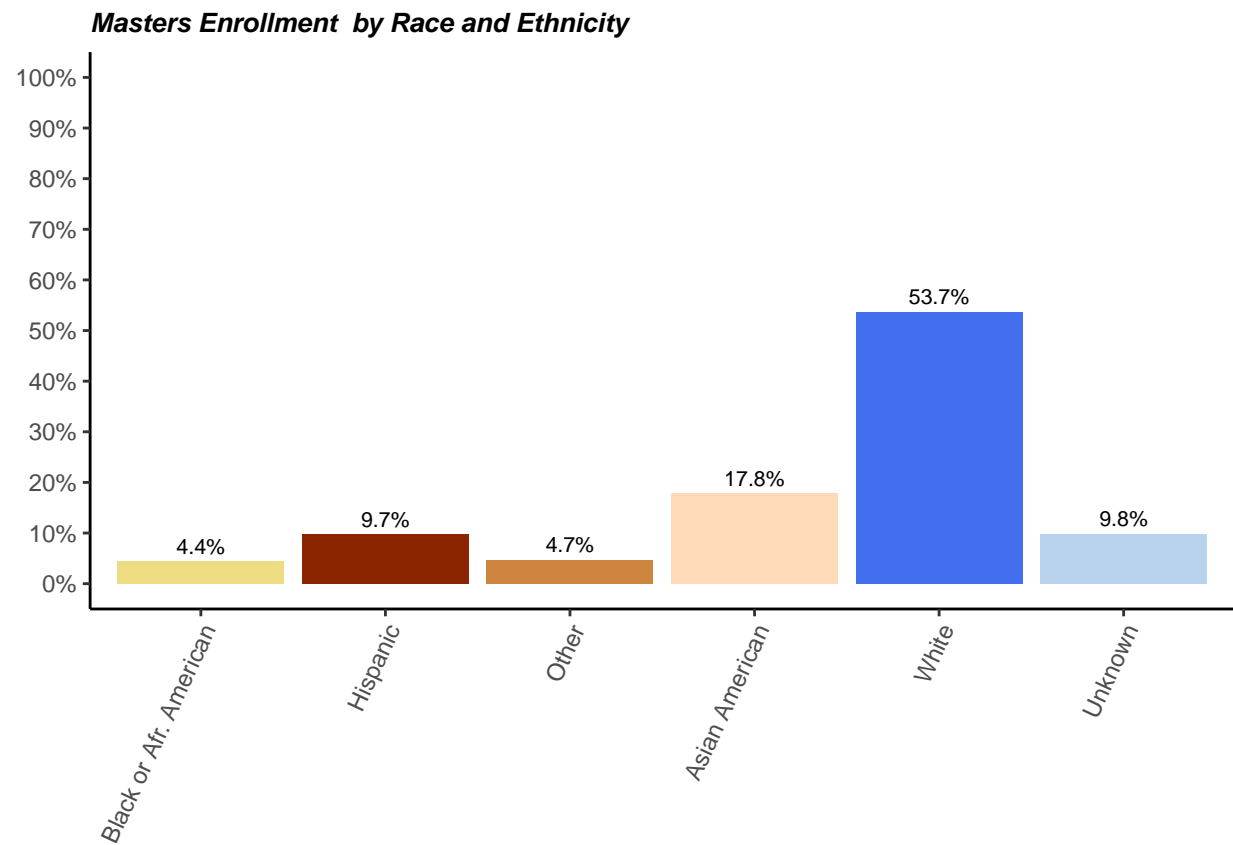
Gender	Percentage
Female	28.9%
Male	71.1%



### 3.2.5 Masters Enrollment by Race and Ethnicity

Table 53: Masters Enrollment by Race and Ethnicity\*

Ethnicity	Percentage
Black or Afr. American	4.4%
<b>Hispanic</b>	9.7%
Other	4.7%
<b>Asian American</b>	17.8%
White	53.7%
<b>Unknown</b>	9.8%

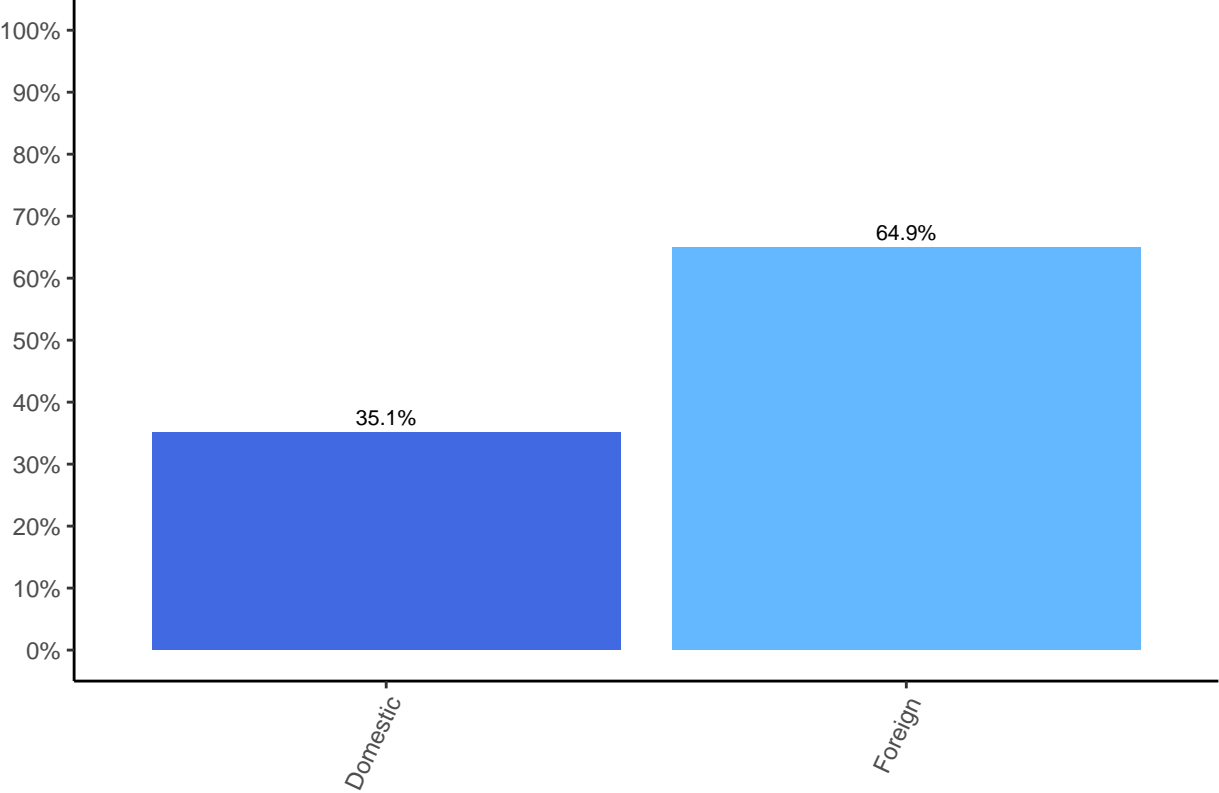


### 3.2.6 Masters Enrollment by Residency

Table 54: Masters Enrollment by Residency

Nationality	Percentage
Foreign	64.9%
Domestic	35.1%

***Masters Enrollment by Residency***



4 ENGINEERING DOCTORAL

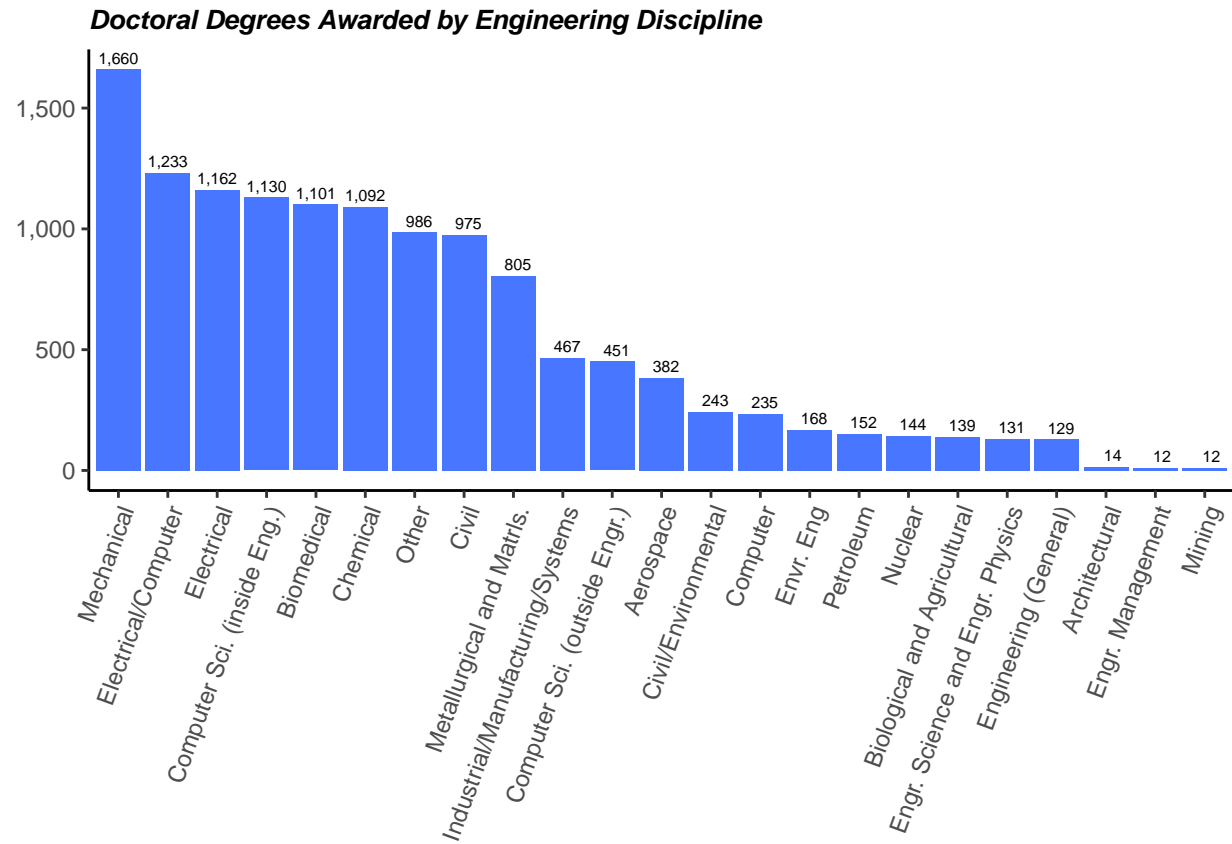
4.1 ENGINEERING DOCTORAL DEGREES

4.1.1 Doctoral Degrees Awarded by Engineering Discipline

Table 55: Doctoral Degrees by discipline: 12,372

Discipline Name	Degrees Awarded
Mechanical	1,660
<b>Electrical/Computer</b>	1,233
Electrical	1,162
<b>Computer Sci. (inside Eng.)</b>	1,130
Biomedical	1,101
<b>Chemical</b>	1,092
Other	986
<b>Civil</b>	975
Metallurgical and Matrls.	805
<b>Industrial/Manufacturing/Systems</b>	467
Computer Sci. (outside Engr.)	451
<b>Aerospace</b>	382
Civil/Environmental	243
<b>Computer</b>	235
Envr. Eng	168
<b>Petroleum</b>	152
Nuclear	144
<b>Biological and Agricultural</b>	139
Engr. Science and Engr. Physics	131
<b>Engineering (General)</b>	129
Architectural	14
<b>Engr. Management</b>	12
Mining	12

\* Total does not include computer science (outside engineering).



4.1.2 Total Doctoral Degrees Awarded to Underrepresented Minorities by Engineering Discipline

Table 56: Doctoral Degrees Awarded to Underrepresented Minorities by Engineering Discipline: 568

Discipline Name	Degrees Awarded
Biomedical	91
<b>Other</b>	76
Chemical	68
<b>Mechanical</b>	61
Civil	38
<b>Computer Sci. (inside Eng.)</b>	37
Electrical/Computer	37
<b>Metallurgical and Matrls.</b>	31
Industrial/Manufacturing/Systems	30
<b>Electrical</b>	26
Aerospace	18
<b>Envr. Eng</b>	13
Civil/Environmental	11
<b>Nuclear</b>	9
Biological and Agricultural	6
<b>Computer</b>	5
Computer Sci. (outside Engr.)	5
<b>Engineering (General)</b>	4
Petroleum	4
<b>Engr. Science and Engr. Physics</b>	3
Architectural	0
<b>Engr. Management</b>	0
Mining	0

\* Total does not include computer science (outside engineering).

4.1.3 Percentage of Doctoral Degrees Awarded to Underrepresented Minorities by Discipline

Table 57: Percentage of Doctoral Degrees Awarded to Underrepresented Minorities by Discipline 4.4 % of Total

Discipline Name	Percent Women
Biomedical	8.3%
<b>Envr. Eng</b>	7.7%
Other	7.7%
<b>Industrial/Manufacturing/Systems</b>	6.4%
Chemical	6.2%
<b>Nuclear</b>	6.2%
Aerospace	4.7%
<b>Civil/Environmental</b>	4.5%
Biological and Agricultural	4.3%
<b>Civil</b>	3.9%
Metallurgical and Matrls.	3.9%
<b>Mechanical</b>	3.7%
Computer Sci. (inside Eng.)	3.3%
<b>Engineering (General)</b>	3.1%
Electrical/Computer	3%
<b>Petroleum</b>	2.6%
Engr. Science and Engr. Physics	2.3%
<b>Electrical</b>	2.2%
Computer	2.1%
<b>Computer Sci. (outside Engr.)</b>	1.1%
Architectural	0%
<b>Engr. Management</b>	0%
Mining	0%

4.1.4 Percentage of Doctoral Degrees Awarded to Women by Discipline

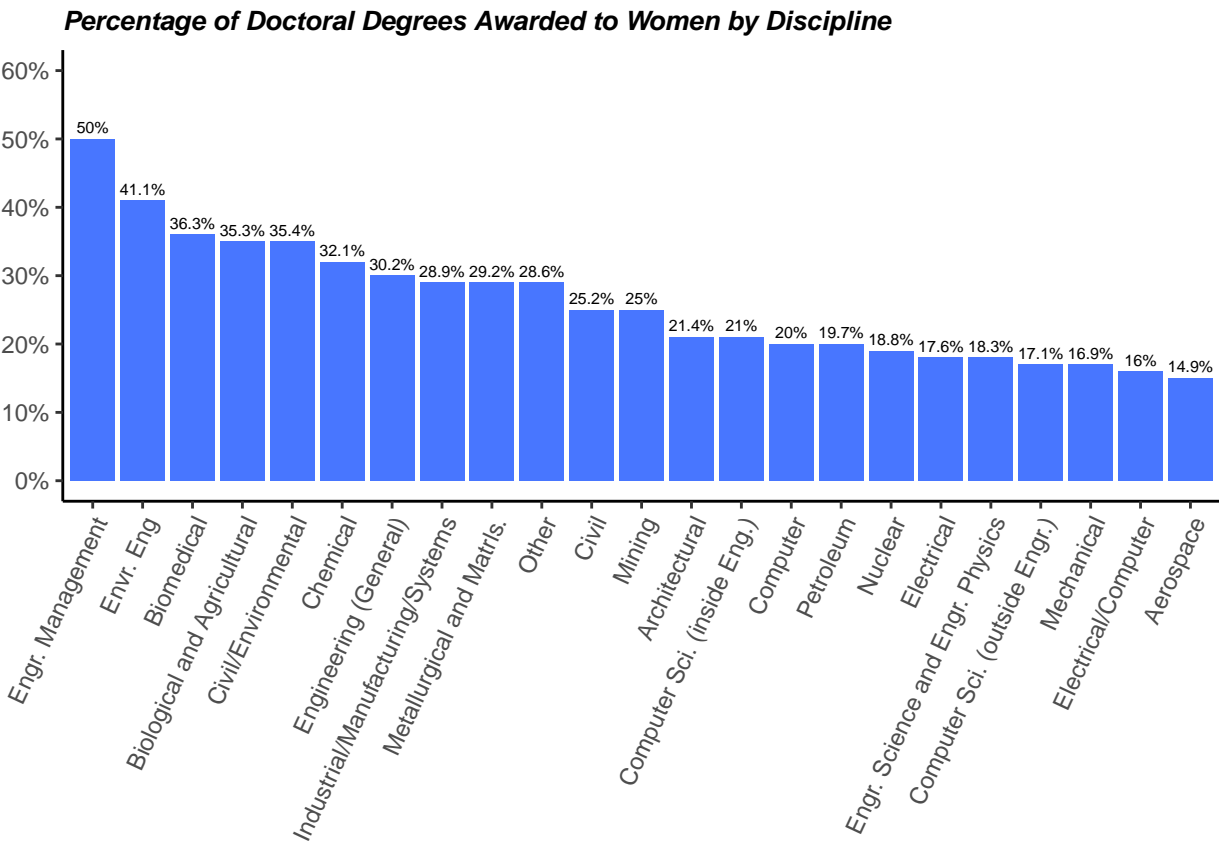
Table 58: Percentage of Doctoral Degrees Awarded to Women by Discipline 24.1 % of Total

Discipline Name	Percent Women
Engr. Management	50%
<b>Envr. Eng</b>	41.1%
Biomedical	36.3%
<b>Civil/Environmental</b>	35.4%
Biological and Agricultural	35.3%
<b>Chemical</b>	32.1%
Engineering (General)	30.2%
<b>Metallurgical and Matrls.</b>	29.2%
Industrial/Manufacturing/Systems	28.9%



Table 58: Percentage of Doctoral Degrees Awarded to Women by Discipline 24.1 % of Total *(continued)*

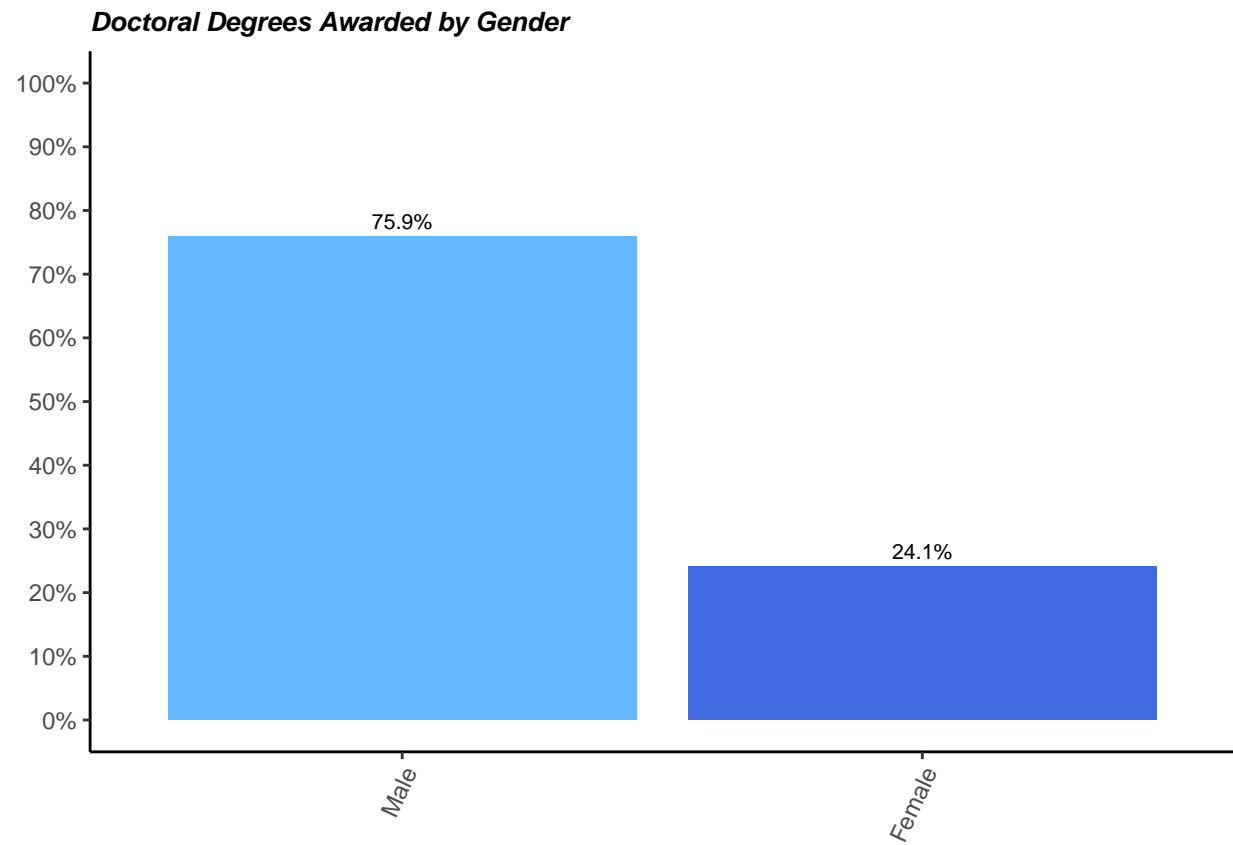
Discipline Name	Percent Women
<b>Other</b>	28.6%
Civil	25.2%
<b>Mining</b>	25%
Architectural	21.4%
<b>Computer Sci. (inside Eng.)</b>	21%
Computer	20%
<b>Petroleum</b>	19.7%
Nuclear	18.8%
<b>Engr. Science and Engr. Physics</b>	18.3%
Electrical	17.6%
<b>Computer Sci. (outside Engr.)</b>	17.1%
Mechanical	16.9%
<b>Electrical/Computer</b>	16%
Aerospace	14.9%



4.1.5 Doctoral Degrees Awarded by Gender

Table 59: Doctoral Degrees Awarded by Gender

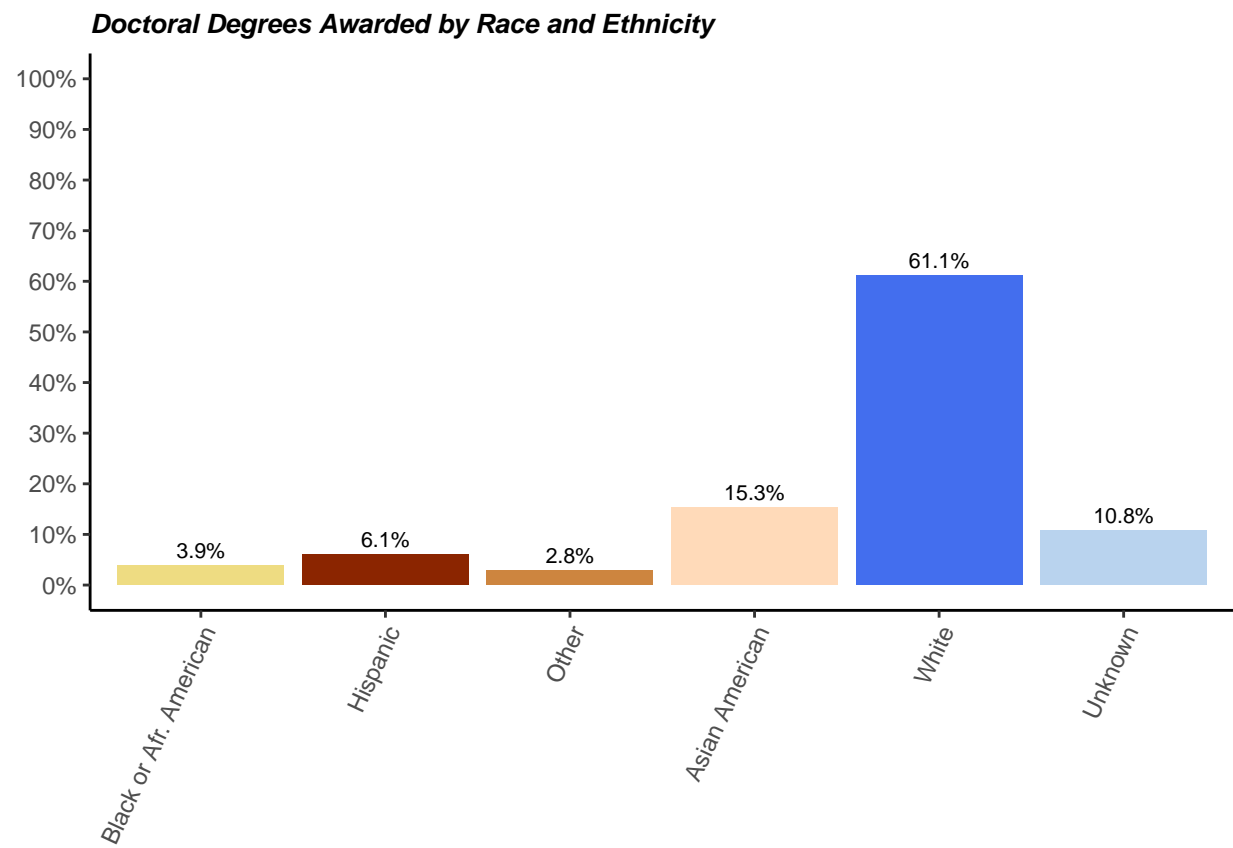
Gender	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Female	21.20%	22.90%	21.80%	22.20%	22.40%	22.20%	23.30%	23.50%	23.60%	24.10%
Male	78.80%	77.10%	78.20%	77.80%	77.60%	77.80%	76.70%	76.50%	76.40%	75.90%



4.1.6 Doctoral Degrees Awarded by Race and Ethnicity

Table 60: Doctoral Degrees Awarded by Ethnicity

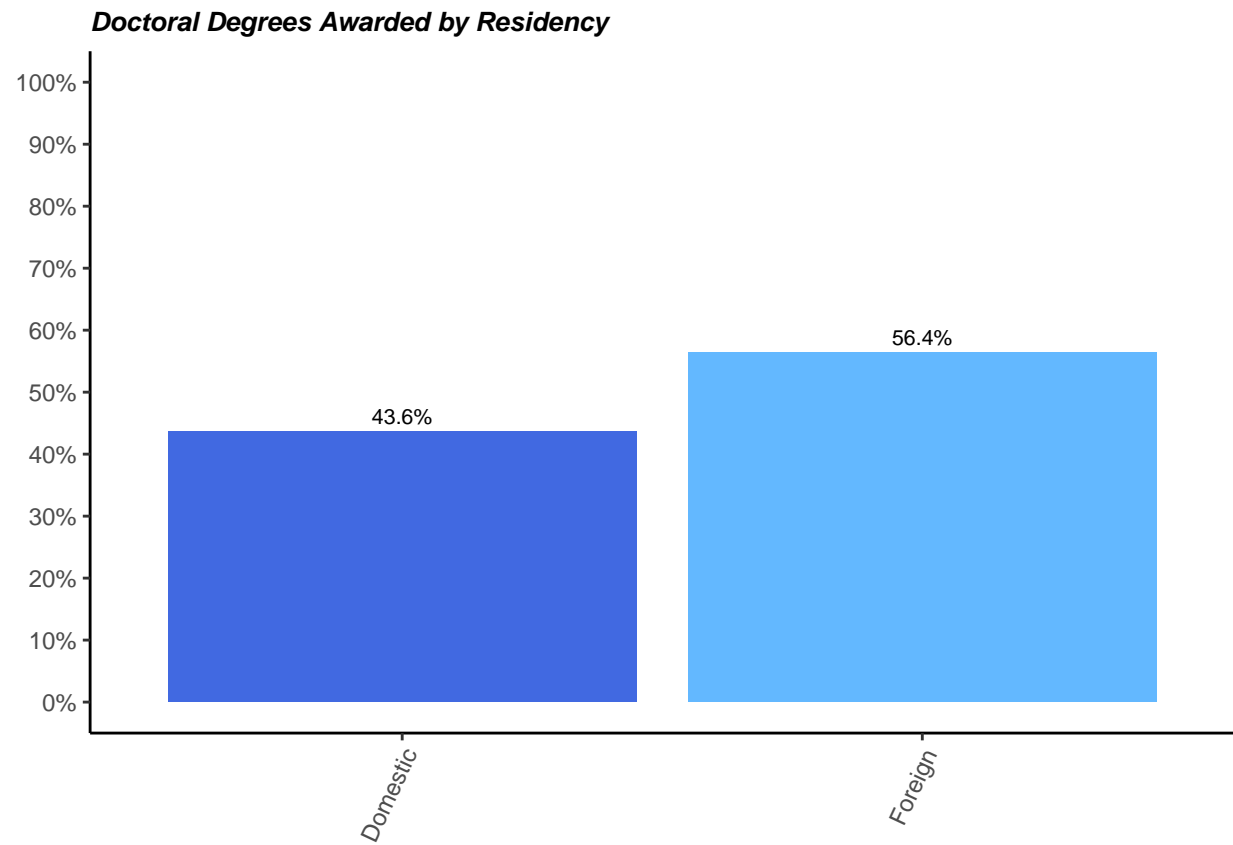
Ethnicity	2011	2012	2013	2014	2015	2016	2017	2018	2019
Black or Afr. American	3.5%	4.1%	4.1%	3.6%	3.2%	4.4%	3.8%	4.2%	3.9%
<b>Hispanic</b>	4.2%	4.1%	4.7%	5.1%	6.1%	5.7%	6.3%	6.0%	6.1%
Other	1.6%	1.7%	1.7%	1.6%	2.2%	3.1%	2.9%	2.9%	2.8%
<b>Asian American</b>	15.1%	14.1%	13.5%	10.4%	14.1%	14.9%	14.8%	13.9%	15.3%
White	60.3%	61.1%	61.8%	65.1%	62.9%	62.0%	62.2%	62.0%	61.1%
<b>Unknown</b>	15.3%	14.9%	14.2%	14.2%	11.5%	9.9%	10.0%	11.1%	10.8%



4.1.7 Doctoral Degrees Awarded by Residency

Table 61: Doctoral Degrees Awarded by Residency

Nationality	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Foreign	54.2%	54.2%	53.3%	55.1%	54.8%	54.7%	54.8%	55.7%	56.3%	56.4%
<b>Domestic</b>	45.8%	45.8%	46.7%	44.9%	45.2%	45.3%	45.2%	44.3%	43.7%	43.6%



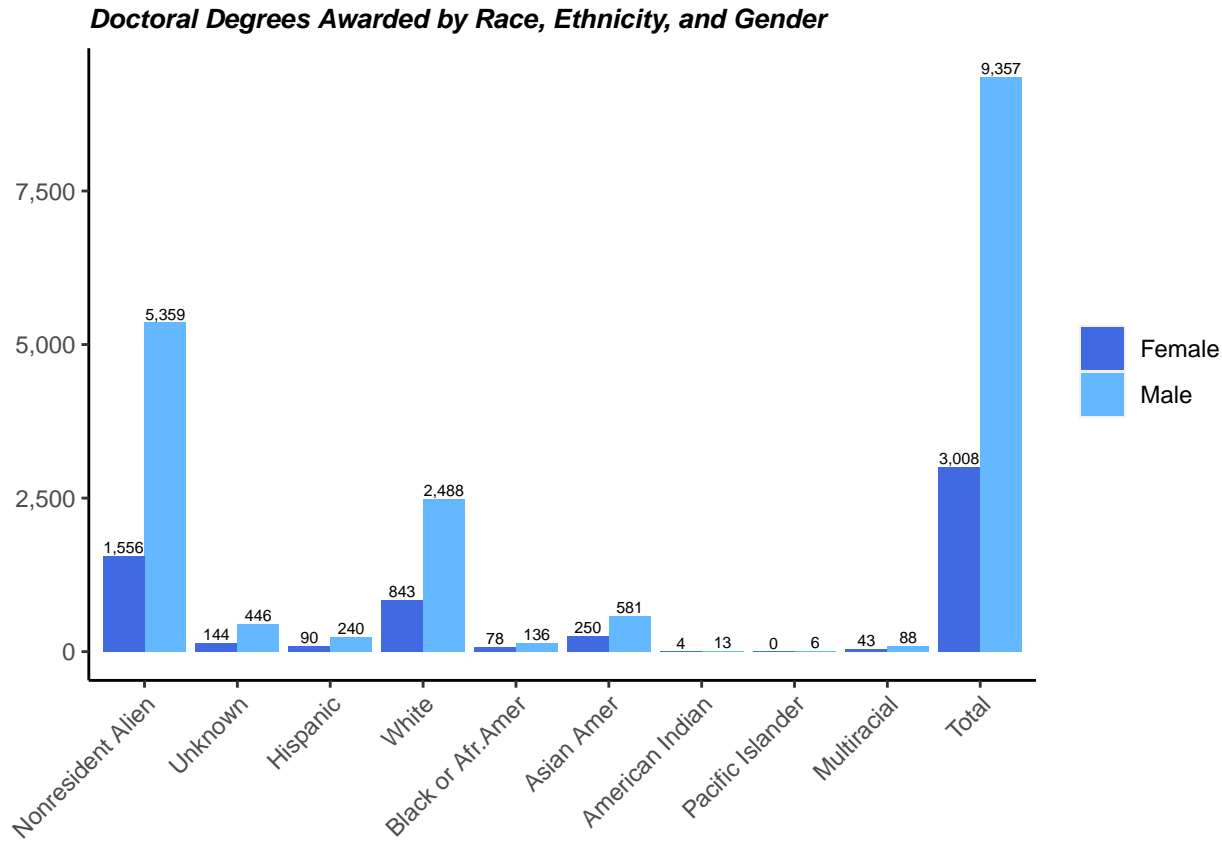
4.1.8 Doctoral Degrees Awarded by Race, Ethnicity, and Gender

Table 62: Doctoral Degrees Awarded by Race, Ethnicity, and Gender 12,372\*

Ethnicity	Degrees
Nonresident Alien Male	5,359
<b>Nonresident Alien Female</b>	1,556
Unknown Male	446
<b>Unknown Female</b>	144
Hispanic Male	240
<b>Hispanic Female</b>	90
White Male	2,488
<b>White Female</b>	843
Black or Afr. American Male	136
<b>Black or Afr. American Female</b>	78
Asian American Male	581
<b>Asian American Female</b>	250
American Indian Male	13
<b>American Indian Female</b>	4
Native Hawaiian/Other Pacfic Islander Male	6
<b>Native Hawaiian/Other Pacfic Islander Female</b>	0
Multiracial Male	88
<b>Multiracial Female</b>	43
Total Male	9,357
<b>Total Female</b>	3,008

\* Total degree includes 0 total Non binary graduates and 8 total Other Gender graduates.

\* Includes 11 male and0 female graduates from Puerto Rico.



4.1.9 Top 50 Institutions Awarding Engineering Doctoral Degrees

Table 63: Highest Number of Engineering Doctoral Degrees

No	Institutions	Degrees Awarded
1	Georgia Institute of Technology	379
2	Massachusetts Institute of Technology	370
3	Stanford University	316
4	University of Illinois at Urbana-Champaign	310
5	Purdue University	304
6	Texas A&M University	274
7	University of Michigan	273
8	The University of Texas at Austin	270
9	University of California, Berkeley	229
10	Carnegie Mellon University	212
11	Virginia Polytechnic Institute and State University	200
12	University of Maryland, College Park	195
13	University of California, San Diego	184
13	University of Washington in Seattle	184
15	University of Southern California	182
16	University of Wisconsin-Madison	178
17	The Pennsylvania State University	174
18	Cornell University	169
18	The Ohio State University	169
20	University of Florida	166
21	University of Minnesota -Twin Cities	162
22	North Carolina State University	159
23	University of California, Los Angeles	158
24	Arizona State University	157
25	Northwestern University	150
26	Iowa State University	143
27	Columbia University	136
27	The George Washington University	136
29	University of California, Irvine	135
30	University of Colorado Boulder	131
31	The Johns Hopkins University	121
32	University of Utah	113
33	University of Tennessee, Knoxville	110
34	Stony Brook University	109
35	University of Central Florida	108
36	Rutgers, The State University of New Jersey, School of Engineering	105
36	University of California, Davis	105
36	William Marsh Rice University	105
39	Colorado School of Mines	101
39	Rensselaer Polytechnic Institute	101
41	Princeton University	97
42	University of Houston	96
43	Northeastern University	95
44	Clemson University	93
44	University of Delaware	93
46	University of Connecticut	92
47	Missouri University of Science and Technology	91
47	University of California, Riverside	91
49	Michigan State University	90
50	Oregon State University	89

\* 422 Institutions reported.Includes both Part-time and full-time

4.1.10 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	The George Washington University	30
2	Georgia Institute of Technology	24
2	Massachusetts Institute of Technology	24
4	Stanford University	20
5	University of California, Riverside	16
5	University of Michigan	16
7	University of Florida	15
8	University of California, Berkeley	14
9	University of Puerto Rico, Mayaguez Campus	11
10	Northwestern University	10
10	Purdue University	10
10	University of California, Los Angeles	10
10	University of Maryland, College Park	10
14	Cornell University	9
14	University of California, San Diego	9
14	University of Central Florida	9
14	University of Washington in Seattle	9
14	University of Wisconsin-Madison	9
19	Texas A&M University	8
19	The Johns Hopkins University	8

\* 422 Institutions included

4.1.11 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	University of Puerto Rico, Mayaguez Campus	100%
2	Texas A&M University - Kingsville	50%
2	Texas State University	50%
4	Morgan State University	36.4%
5	North Carolina A&T State University	30%
6	University of Miami	25%
7	The George Washington University	22.1%
8	The University of Texas at El Paso	21.1%
9	University of California, Riverside	17.6%
10	California State University, Long Beach	16.7%
10	University of North Carolina at Chapel Hill	16.7%
12	University of Hawaii at Manoa	14.3%
12	University of North Dakota	14.3%
12	University of Southern Mississippi	14.3%
15	University of Maryland, Baltimore County	13.9%
16	University of Rhode Island	12.5%
17	The University of Texas at San Antonio	12.1%
18	University of Arkansas	11.4%
19	Howard University	11.1%
20	City College of the City University of New York	10.3%
21	Embry Riddle Aeronautical University-Daytona Beach	9.1%
21	Ohio University	9.1%
21	Vanderbilt University	9.1%
24	University of Florida	9%
25	The University of New Mexico	8.9%
26	University of South Carolina	8.9%
27	University of California-Santa Cruz	8.7%
28	University of Notre Dame	8.6%
28	West Virginia University	8.6%
30	University of Central Florida	8.3%
31	Air Force Institute of Technology	7.7%
31	The Catholic University of America	7.7%
33	University of Missouri	7%
34	Duke University	6.9%
35	The University of Texas at Dallas	6.7%
36	Northwestern University	6.7%
36	Tennessee Technological University	6.7%
36	William Marsh Rice University	6.7%
39	The Johns Hopkins University	6.6%
40	Florida International University	6.5%
41	Massachusetts Institute of Technology	6.5%
42	University of Delaware	6.5%
42	Utah State University	6.5%
44	Case Western Reserve University	6.4%
45	FAMU-FSU College of Engineering	6.3%
46	Georgia Institute of Technology	6.3%
47	Stanford University	6.3%
47	University of California, Los Angeles	6.3%
49	Northeastern University	6.3%
50	University of California, Berkeley	6.1%

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

No	Institutions	Percent Underrepresented Minorities
* 422 Institutions included		

4.1.12 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	Rowan University	100%
<b>1</b>	<b>San Diego State University</b>	100%
3	University of Nevada, Las Vegas	58.3%
<b>4</b>	<b>Jackson State University</b>	50%
4	SUNY College of Environmental Science and Forestry	50%
<b>4</b>	<b>Texas A&amp;M University - Kingsville</b>	50%
4	Tufts University	50%
<b>4</b>	<b>University of Detroit Mercy</b>	50%
4	Western New England University	50%
<b>10</b>	<b>Lamar University</b>	46.7%
11	University of Louisiana at Lafayette	44.4%
<b>12</b>	<b>Tennessee State University</b>	42.9%
12	University of Maine	42.9%
<b>14</b>	<b>Alfred University, NY State College of Ceramics</b>	40%
14	North Carolina A&T State University	40%
<b>14</b>	<b>University of Miami</b>	40%
14	University of Wyoming	40%
<b>18</b>	<b>Clarkson University</b>	38.1%
19	Embry Riddle Aeronautical University-Daytona Beach	36.4%
<b>19</b>	<b>University of Massachusetts Dartmouth</b>	36.4%

\* 422 Institutions included

4.1.13 Top 50 Institutions Awarding Doctoral Degrees to Foreign Nationals

Table 67: Highest Number of Engineering Doctoral Degrees

No	Institutions	Degrees Awarded
1	Purdue University	209
<b>2</b>	<b>Georgia Institute of Technology</b>	208
3	University of Illinois at Urbana-Champaign	202
<b>4</b>	<b>Texas A&amp;M University</b>	197
5	Massachusetts Institute of Technology	185
<b>6</b>	<b>The University of Texas at Austin</b>	169
7	University of Michigan	142
<b>8</b>	<b>Stanford University</b>	137
9	Carnegie Mellon University	134
<b>10</b>	<b>Virginia Polytechnic Institute and State University</b>	130
11	University of Southern California	121
<b>12</b>	<b>The Pennsylvania State University</b>	118
13	University of Maryland, College Park	115
<b>14</b>	<b>Iowa State University</b>	112
15	Arizona State University	111
<b>16</b>	<b>University of California, Los Angeles</b>	108
16	University of California, San Diego	108
<b>18</b>	<b>The Ohio State University</b>	107
19	University of Wisconsin-Madison	102
<b>20</b>	<b>University of Minnesota -Twin Cities</b>	101
21	North Carolina State University	90
<b>21</b>	<b>University of California, Berkeley</b>	90
23	University of Florida	89
<b>24</b>	<b>Stony Brook University</b>	82
24	University of Washington in Seattle	82
<b>26</b>	<b>Northwestern University</b>	79
27	University of Houston	78
<b>28</b>	<b>Cornell University</b>	75
29	Rutgers, The State University of New Jersey, School of Engineering	74
<b>30</b>	<b>Missouri University of Science and Technology</b>	72
30	The University of Texas at Dallas	72
<b>32</b>	<b>Michigan State University</b>	68
33	University of California, Davis	67
<b>33</b>	<b>University of California, Irvine</b>	67
35	University of Connecticut	65
<b>36</b>	<b>The University of Texas at Arlington</b>	64
37	University of Tennessee, Knoxville	63
<b>38</b>	<b>University of Central Florida</b>	62
39	Northeastern University	61
<b>40</b>	<b>Clemson University</b>	60
40	University of Illinois at Chicago	60
<b>42</b>	<b>Rensselaer Polytechnic Institute</b>	57
42	The Johns Hopkins University	57



Table 67: Highest Number of Engineering Doctoral Degrees (*continued*)

No	Institutions	Degrees Awarded
<b>42</b>	<b>William Marsh Rice University</b>	57
45	Oregon State University	54
<b>46</b>	<b>Auburn University</b>	53
46	University of Nebraska, Lincoln	53
<b>48</b>	<b>University of Colorado Boulder</b>	51
49	University of Delaware	50
<b>50</b>	<b>University of Arizona</b>	47

\* 422 Institutions included

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

Table 68: Top 50 Institutions Awarding Bachelor’s Degrees (excluding computer science)

No	Institutions	Degrees Awarded
1	Georgia Institute of Technology	2,195
<b>2</b>	<b>Purdue University</b>	1,925
3	University of Illinois at Urbana-Champaign	1,907
<b>4</b>	<b>Texas A&amp;M University</b>	1,868
5	North Carolina State University	1,801
<b>6</b>	<b>The Pennsylvania State University</b>	1,758
7	Arizona State University	1,725
<b>8</b>	<b>Iowa State University</b>	1,653
9	Virginia Polytechnic Institute and State University	1,648
<b>10</b>	<b>The Ohio State University</b>	1,419
11	The University of Texas at Austin	1,301
<b>12</b>	<b>University of Florida</b>	1,279
13	California Polytechnic State University, San Luis Obispo	1,195
<b>14</b>	<b>University of Wisconsin-Madison</b>	1,192
15	University of Michigan	1,148
<b>16</b>	<b>Louisiana State University</b>	1,067
17	University of California, Berkeley	1,052
<b>18</b>	<b>Missouri University of Science and Technology</b>	1,037
19	University of Maryland, College Park	1,032
<b>20</b>	<b>University of Central Florida</b>	1,015
21	Colorado School of Mines	1,009
<b>22</b>	<b>University of Washington in Seattle</b>	1,005
23	University at Buffalo, SUNY	1,001
<b>24</b>	<b>San Jose State University</b>	980
25	Clemson University	951
<b>26</b>	<b>Stony Brook University</b>	949
27	Oregon State University	940
<b>28</b>	<b>Texas Tech University</b>	922
29	University of California, San Diego	914
<b>30</b>	<b>The University of Alabama</b>	899
31	Rutgers, The State University of New Jersey, School of Engineering	892
<b>32</b>	<b>University of Colorado Boulder</b>	890
33	Massachusetts Institute of Technology	840
<b>33</b>	<b>West Virginia University</b>	840
35	Michigan State University	839
<b>36</b>	<b>University of Minnesota -Twin Cities</b>	836
37	University of California, Irvine	835
<b>38</b>	<b>Northeastern University</b>	807
39	University of South Florida	789
<b>40</b>	<b>Michigan Technological University</b>	783
41	California State University, Long Beach	770
<b>42</b>	<b>Rensselaer Polytechnic Institute</b>	769
43	Drexel University	754
<b>44</b>	<b>Auburn University</b>	751
45	University of Oklahoma, Gallogly College of Engineering	745
<b>46</b>	<b>George Mason University</b>	743
47	San Diego State University	736
<b>48</b>	<b>University of California, Davis</b>	726
49	University of Pittsburgh	719
<b>50</b>	<b>Worcester Polytechnic Institute</b>	715

\* 422 Institutions included

4.1.15 Top 50 Institutions Awarding Master’s Degrees (excluding computer science both inside and outside Engineering)

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

No	Institutions	Degrees Awarded
1	Northeastern University	1,443
<b>2</b>	<b>University of Southern California</b>	1,318
3	Georgia Institute of Technology	1,277
<b>4</b>	<b>University of Michigan</b>	1,168
5	Columbia University	1,107
<b>6</b>	<b>Carnegie Mellon University</b>	1,064

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

No	Institutions	Degrees Awarded
7	The Johns Hopkins University	1,009
8	<b>San Jose State University</b>	961
9	Arizona State University	951
10	<b>Stanford University</b>	887
11	Texas A&M University	880
12	<b>University of California, Berkeley</b>	874
13	Massachusetts Institute of Technology	819
14	<b>University of Illinois at Urbana-Champaign</b>	813
15	Cornell University	763
16	<b>University of Washington in Seattle</b>	724
17	Stevens Institute of Technology	701
18	<b>North Carolina State University</b>	678
19	Purdue University	667
20	<b>University of Florida</b>	663
21	The University of Texas at Arlington	642
22	<b>Northwestern University</b>	626
23	University of California, Los Angeles	570
24	<b>University of California, San Diego</b>	559
25	University of Colorado Boulder	542
26	<b>The George Washington University</b>	531
27	New Jersey Institute of Technology	494
28	<b>University of Maryland, College Park</b>	491
29	NYU Tandon School of Engineering	486
30	<b>Worcester Polytechnic Institute</b>	463
31	University of Pennsylvania	460
32	<b>Stony Brook University</b>	444
33	Missouri University of Science and Technology	435
34	<b>Virginia Polytechnic Institute and State University</b>	429
35	The University of Texas at Austin	425
36	<b>University of South Florida</b>	424
37	George Mason University	392
38	<b>Duke University</b>	385
39	The Ohio State University	384
40	<b>University of Illinois at Chicago</b>	383
41	Illinois Institute of Technology	377
42	<b>Santa Clara University</b>	355
43	The Pennsylvania State University	354
44	<b>Boston University</b>	353
45	University of Houston	350
46	<b>Drexel University</b>	344
47	Rutgers, The State University of New Jersey, School of Engineering	338
48	<b>Washington University in St. Louis</b>	332
49	Colorado School of Mines	330
49	<b>University of Wisconsin-Madison</b>	330

\* 422 Institutions included

4.1.16 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	Massachusetts Institute of Technology	370
2	<b>Georgia Institute of Technology</b>	352
3	Stanford University	285
4	<b>Purdue University</b>	278
5	Texas A&M University	268
5	<b>University of Illinois at Urbana-Champaign</b>	268
7	The University of Texas at Austin	250
8	<b>University of Michigan</b>	241
9	University of California, Berkeley	190
10	<b>University of Washington in Seattle</b>	184
11	Virginia Polytechnic Institute and State University	179
12	<b>The Pennsylvania State University</b>	174
13	University of Maryland, College Park	160
14	<b>University of California, San Diego</b>	159
15	University of Wisconsin-Madison	157
16	<b>University of Florida</b>	154
17	Cornell University	151
18	<b>Northwestern University</b>	150
19	The Ohio State University	149
20	<b>North Carolina State University</b>	137
21	The George Washington University	136
22	<b>University of California, Los Angeles</b>	134
23	Iowa State University	133
23	<b>University of Minnesota -Twin Cities</b>	133
25	Arizona State University	132
25	<b>University of Southern California</b>	132
27	Carnegie Mellon University	129
28	<b>Columbia University</b>	116

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

No	Institutions	Degrees Awarded
29	University of Colorado Boulder	112
<a href="#">30</a>	<b>The Johns Hopkins University</b>	103
30	University of Tennessee, Knoxville	103
<a href="#">32</a>	<b>University of California, Irvine</b>	102
33	University of Utah	101
<a href="#">34</a>	<b>Colorado School of Mines</b>	99
35	William Marsh Rice University	92
<a href="#">36</a>	<b>Stony Brook University</b>	90
37	Clemson University	88
<a href="#">37</a>	<b>Missouri University of Science and Technology</b>	88
37	Rutgers, The State University of New Jersey, School of Engineering	88
<a href="#">40</a>	<b>Rensselaer Polytechnic Institute</b>	87
40	University of Central Florida	87
<a href="#">42</a>	<b>University of Houston</b>	84
43	Northeastern University	82
<a href="#">44</a>	<b>University of California, Davis</b>	81
44	University of Virginia	81
<a href="#">46</a>	<b>University of Delaware</b>	80
47	Michigan State University	78
<a href="#">48</a>	<b>Oregon State University</b>	77
48	The University of Texas at Arlington	77
<a href="#">48</a>	<b>University of Connecticut</b>	77

\* 422 Institutions included

4.1.17 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	Jackson State University	100%
<a href="#">1</a>	<b>New Mexico Institute of Mining and Technology</b>	100%
1	Prairie View A & M University	100%
<a href="#">1</a>	<b>SUNY College of Environmental Science and Forestry</b>	100%
1	University of Detroit Mercy	100%
<a href="#">1</a>	<b>University of Michigan-Dearborn</b>	100%
7	Illinois Institute of Technology	93.3%
<a href="#">8</a>	<b>Western Michigan University</b>	89.7%
9	Howard University	88.9%
<a href="#">10</a>	<b>University of Arkansas at Little Rock</b>	88.2%
11	Lamar University	86.7%
<a href="#">12</a>	<b>NYU Tandon School of Engineering</b>	85.7%
12	University of North Dakota	85.7%
<a href="#">14</a>	<b>University of Missouri</b>	83.7%
15	Wichita State University	82.4%
<a href="#">16</a>	<b>University of Houston</b>	81.2%
17	The University of Texas at Dallas	80.9%
<a href="#">18</a>	<b>University of North Texas</b>	80.6%
19	University of Louisville	80%
<a href="#">19</a>	<b>University of Wyoming</b>	80%
21	University of North Carolina at Charlotte	79.5%
<a href="#">22</a>	<b>Missouri University of Science and Technology</b>	79.1%
23	Iowa State University	78.3%
<a href="#">24</a>	<b>University of Nebraska, Lincoln</b>	77.9%
25	University of Wisconsin, Milwaukee	77.4%
<a href="#">26</a>	<b>Ohio University</b>	77.3%
27	Oklahoma State University	76.9%
<a href="#">27</a>	<b>University of Denver</b>	76.9%
29	Clarkson University	76.2%
<a href="#">30</a>	<b>Florida International University</b>	76.1%
31	Auburn University	75.7%
<a href="#">32</a>	<b>Michigan State University</b>	75.6%
33	Stony Brook University	75.2%
<a href="#">34</a>	<b>University of Nevada, Las Vegas</b>	75%
35	University of Cincinnati	74%
<a href="#">35</a>	<b>University of Oklahoma, Gallogly College of Engineering</b>	74%
37	University of Illinois at Chicago	73.2%
<a href="#">38</a>	<b>Lehigh University</b>	72.7%
38	The University of Toledo	72.7%
<a href="#">40</a>	<b>The University of Tulsa</b>	72%
41	Texas A&M University	71.9%
<a href="#">41</a>	<b>The University of Texas at Arlington</b>	71.9%
43	Florida Institute of Technology	71.7%
<a href="#">44</a>	<b>Southern Illinois University Carbondale</b>	71.4%
44	Tennessee State University	71.4%
<a href="#">44</a>	<b>University of Hawaii at Manoa</b>	71.4%

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

No	Institutions	Percentage
44	University of Nevada, Reno	71.4%
<a href="#">48</a>	<b>Stevens Institute of Technology</b>	71.1%
49	Arizona State University	70.7%
<a href="#">49</a>	<b>University of Connecticut</b>	70.7%

\* 422 Institutions included

4.1.18 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	33.3%
<a href="#">1</a>	<b>University of Alaska Fairbanks, College of Engineering and Mines</b>	33.3%
1	University of Louisiana at Lafayette	33.3%
<a href="#">4</a>	<b>Duke University</b>	36.8%
5	University of South Alabama	37.1%
<a href="#">6</a>	<b>Villanova University</b>	37.5%
7	University of California, Santa Barbara	38.4%
<a href="#">8</a>	<b>Drexel University</b>	38.9%
8	University of Colorado Boulder	38.9%
<a href="#">10</a>	<b>University of California, Berkeley</b>	39.3%
11	Colorado State University	41%
<a href="#">12</a>	<b>University of Colorado Denver</b>	41.2%
13	Colorado School of Mines	41.6%
<a href="#">13</a>	<b>University of Utah</b>	41.6%
15	North Dakota State University	41.7%
<a href="#">15</a>	<b>University of Dayton</b>	41.7%
17	Vanderbilt University	42.4%
<a href="#">18</a>	<b>University of California, Riverside</b>	42.9%
18	University of Maine	42.9%
<a href="#">20</a>	<b>Stanford University</b>	43.4%
21	Cornell University	44.4%
<a href="#">22</a>	<b>The University of New Mexico</b>	44.6%
22	University of Washington in Seattle	44.6%
<a href="#">24</a>	<b>Tufts University</b>	44.7%
25	University of Miami	45%

\* 422 Institutions included

4.1.19 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	Old Dominion University	36
<a href="#">2</a>	<b>University of Nebraska, Lincoln</b>	20
3	Morgan State University	9
<a href="#">3</a>	<b>University of California, Berkeley</b>	9
5	Lamar University	8
<a href="#">5</a>	<b>University of Colorado Denver</b>	8
5	Villanova University	8
<a href="#">8</a>	<b>University of Georgia</b>	7
9	Montana State University	5
<a href="#">10</a>	<b>Jackson State University</b>	4

\* 129 Institutions included

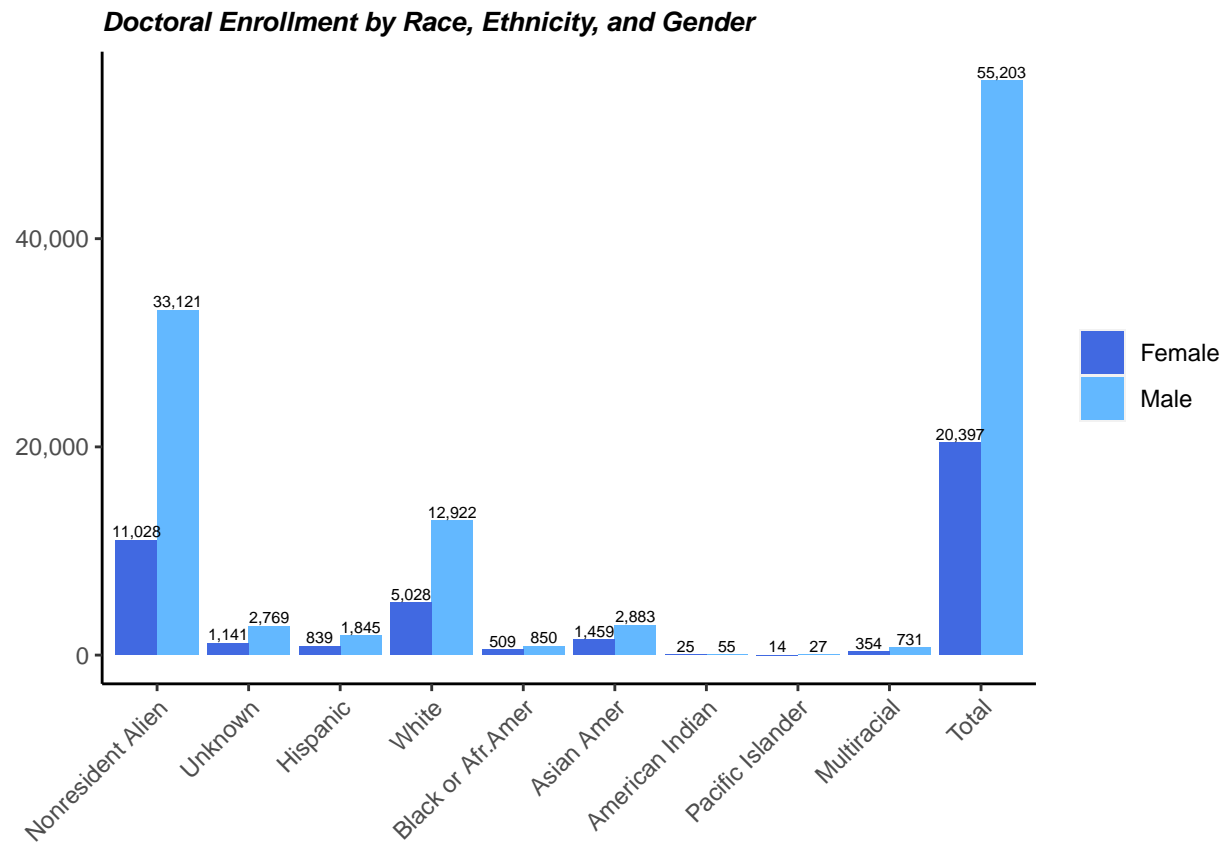
4.2 ENGINEERING DOCTORAL ENROLLMENT

4.2.1 Doctoral Enrollment by Race, Ethnicity, and Gender

Table 74: Doctoral Enrollment by Race, Ethnicity, and Gender 75,600\*

Ethnicity	Enrollments
Nonresident Alien Male	33,121
<b>Nonresident Alien Female</b>	11,028
Unknown Male	2,769
<b>Unknown Female</b>	1,141
Hispanic Male	1,845
<b>Hispanic Female</b>	839
White Male	12,922
<b>White Female</b>	5,028
Black or Afr. American Male	850
<b>Black or Afr. American Female</b>	509
Asian American Male	2,883
<b>Asian American Female</b>	1,459
American Indian Male	55
<b>American Indian Female</b>	25
Native Hawaiian/Other Pacific Islander Male	27
<b>Native Hawaiian/Other Pacific Islander Female</b>	14
Multiracial Male	731
<b>Multiracial Female</b>	354
Total Male	55,203
<b>Total Female</b>	20,397

\* Includes 56 male and 32 female enrolled students from Institutions in Puerto Rico.



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

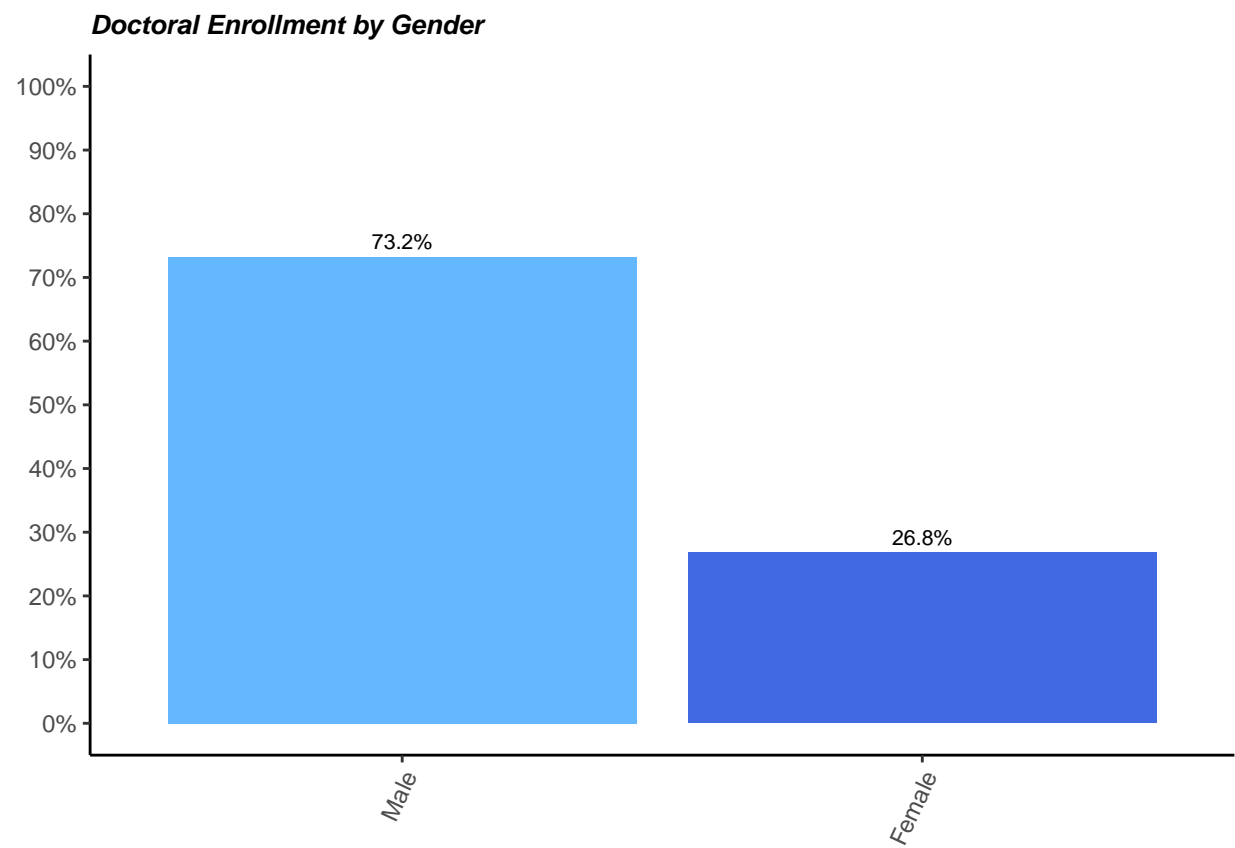
Table 75: Doctoral Enrollment by Engineering Discipline:(Full time and Part time)

Discipline Name	Full Time	Part Time
Aerospace	2,692	230
<b>Architectural</b>	82	1
Biological and Agricultural	672	76
<b>Biomedical</b>	7,250	468
Chemical	6,502	247
<b>Civil</b>	4,842	584
Civil/Environmental	1,243	166
<b>Computer</b>	1,708	211
Computer Sci. (inside Eng.)	9,103	993
<b>Computer Sci. (outside Engr.)</b>	3,892	331
Electrical	6,789	748
<b>Electrical/Computer</b>	7,733	843
Engineering (General)	729	99
<b>Engineering Management</b>	157	199
Engr. Science and Engr. Physics	771	58
<b>Envr. Eng</b>	811	74
Industrial/Manufacturing/Systems	3,008	608
<b>Mechanical</b>	10,005	926
Metallurgical and Matrls.	4,517	217
<b>Mining</b>	99	29
Nuclear	865	66
<b>Other</b>	5,542	858
Petroleum	480	62

4.2.3 Doctoral Enrollment by Gender

Table 76: Doctoral Enrollment by Gender

Gender	Percentage
Female	26.8%
Male	73.2%

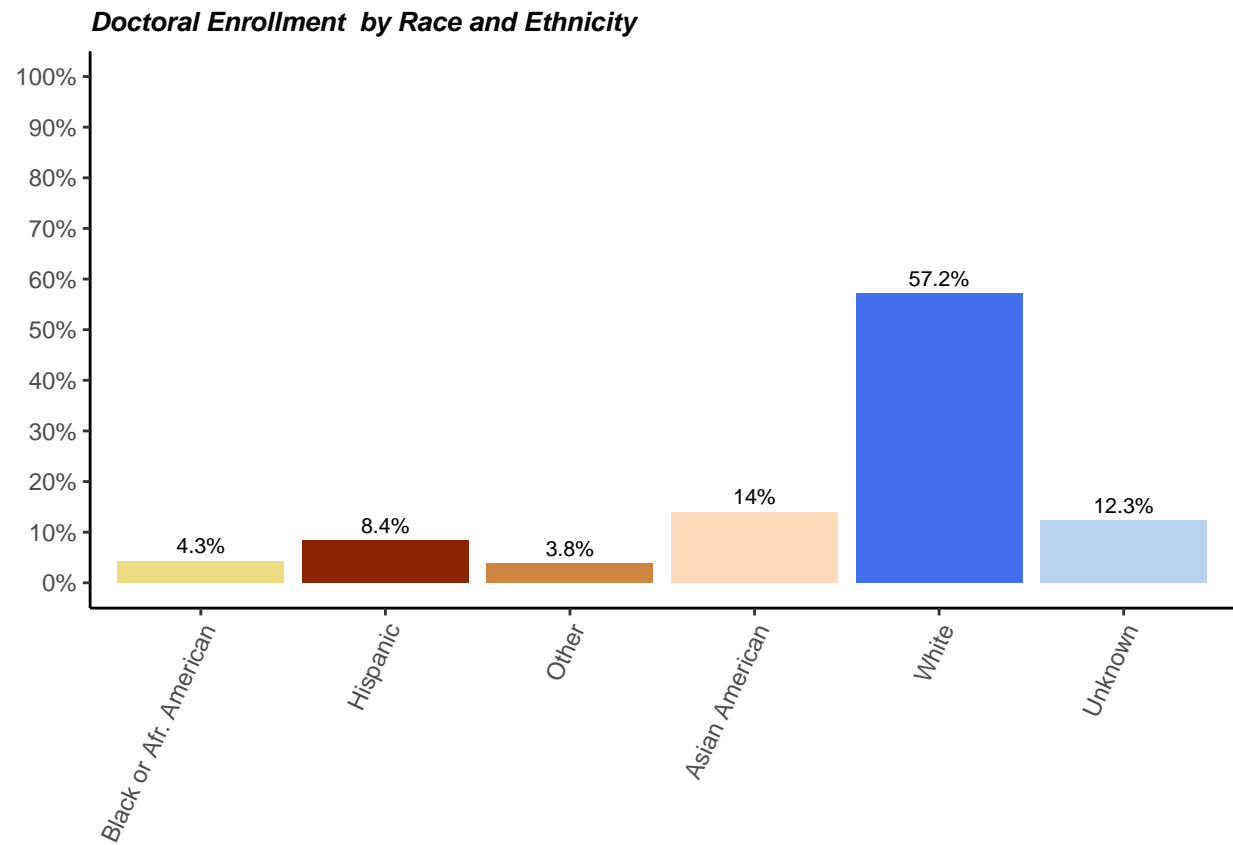


4.2.4 Doctoral Enrollment by Race and Ethnicity

Table 77: Doctoral Enrollment by Race and Ethnicity\*

Ethnicity	Percentage
Black or Afr. American	4.3%
<b>Hispanic</b>	8.4%
Other	3.8%
<b>Asian American</b>	14%
White	57.2%
<b>Unknown</b>	12.3%

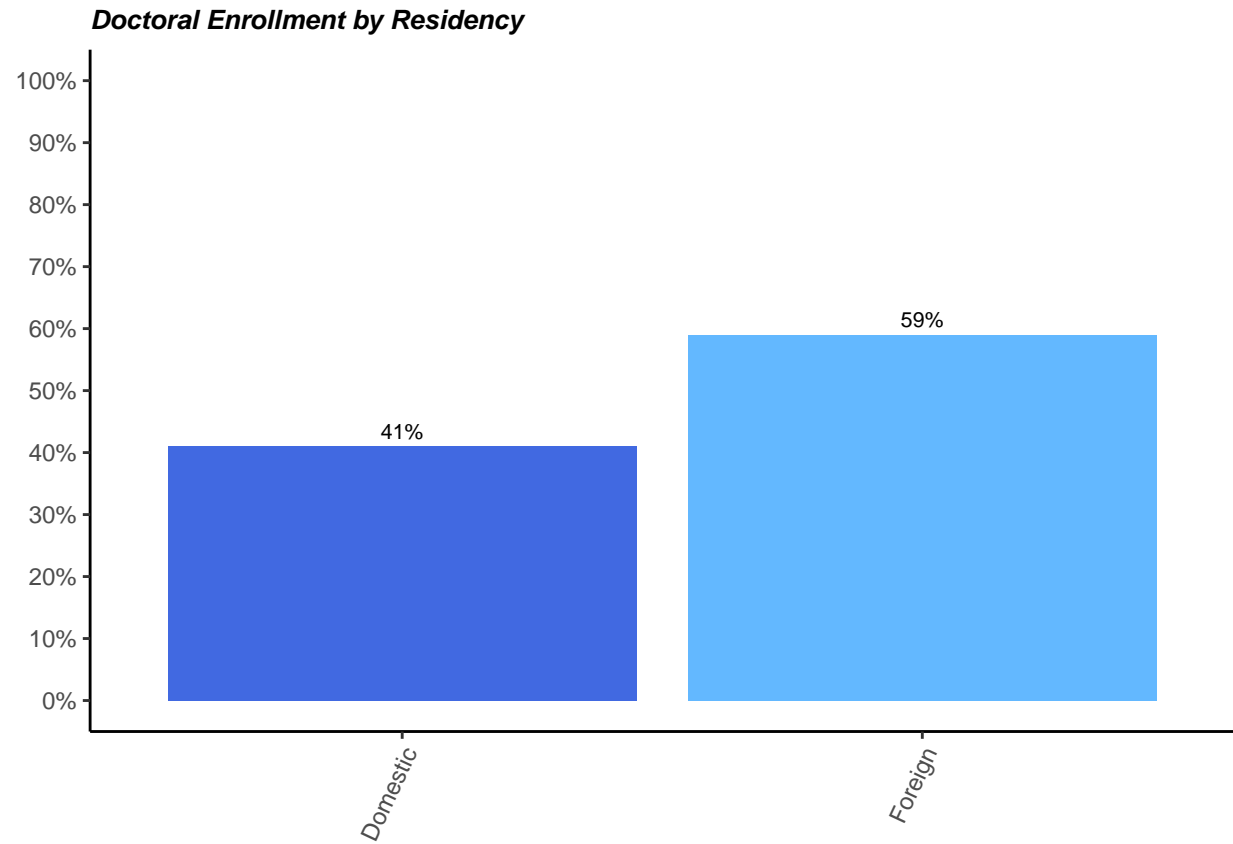




4.2.5 Doctoral Enrollment by Residency

Table 78: Doctoral Enrollment by Residency

Nationality	Percentage
Foreign	59%
Domestic	41%



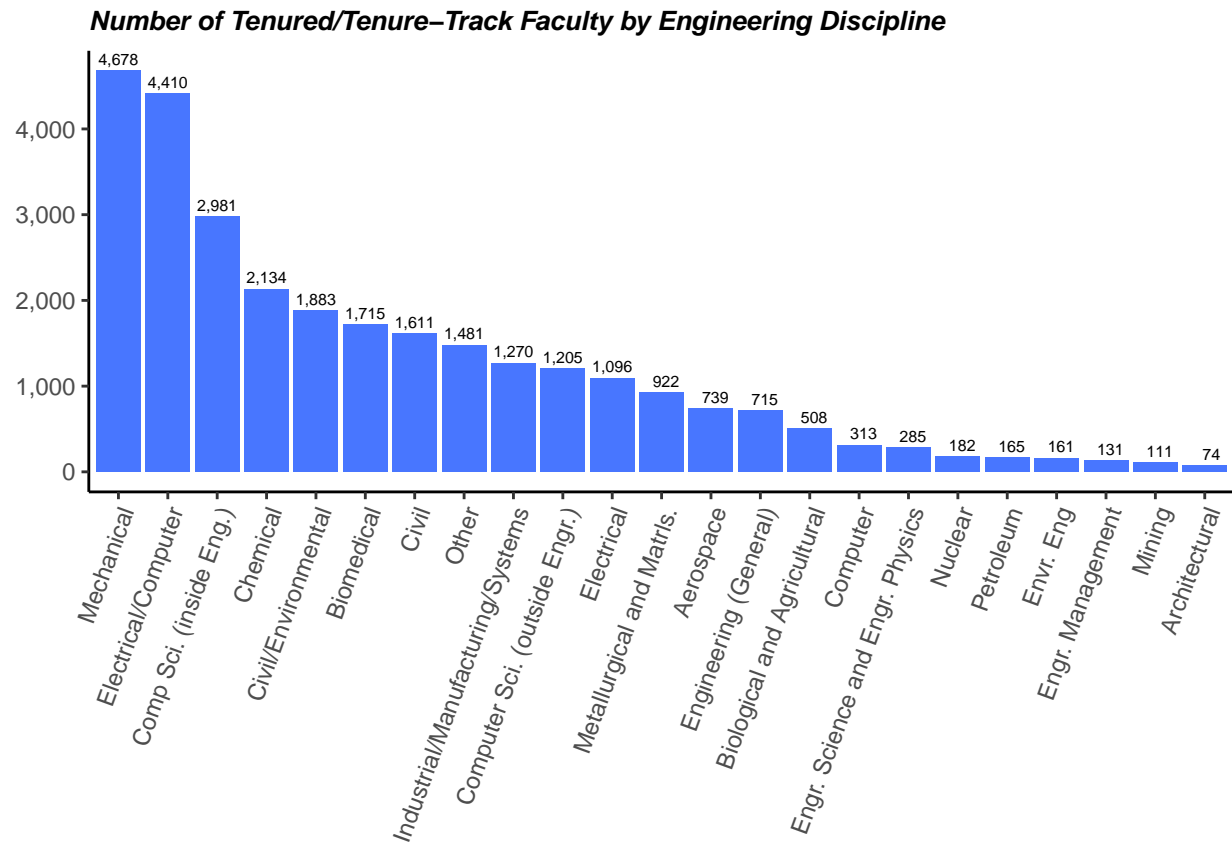
5 ENGINEERING FACULTY , FALL 2019

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

Table 79: Number of Tenured/Tenure-Track Faculty by Engineering Discipline: 27,565

Discipline Name	Number of Faculty
Mechanical	4,678
<b>Electrical/Computer</b>	4,410
Comp Sci. (inside Eng.)	2,981
<b>Chemical</b>	2,134
Civil/Environmental	1,883
<b>Biomedical</b>	1,715
Civil	1,611
<b>Other</b>	1,481
Industrial/Manufacturing/Systems	1,270
<b>Computer Sci. (outside Engr.)</b>	1,205
Electrical	1,096
<b>Metallurgical and Matrls.</b>	922
Aerospace	739
<b>Engineering (General)</b>	715
Biological and Agricultural	508
<b>Computer</b>	313
Engr. Science and Engr. Physics	285
<b>Nuclear</b>	182
Petroleum	165
<b>Envr. Eng</b>	161
Engr. Management	131
<b>Mining</b>	111
Architectural	74

\* Total does not include computer science (outside engineering).



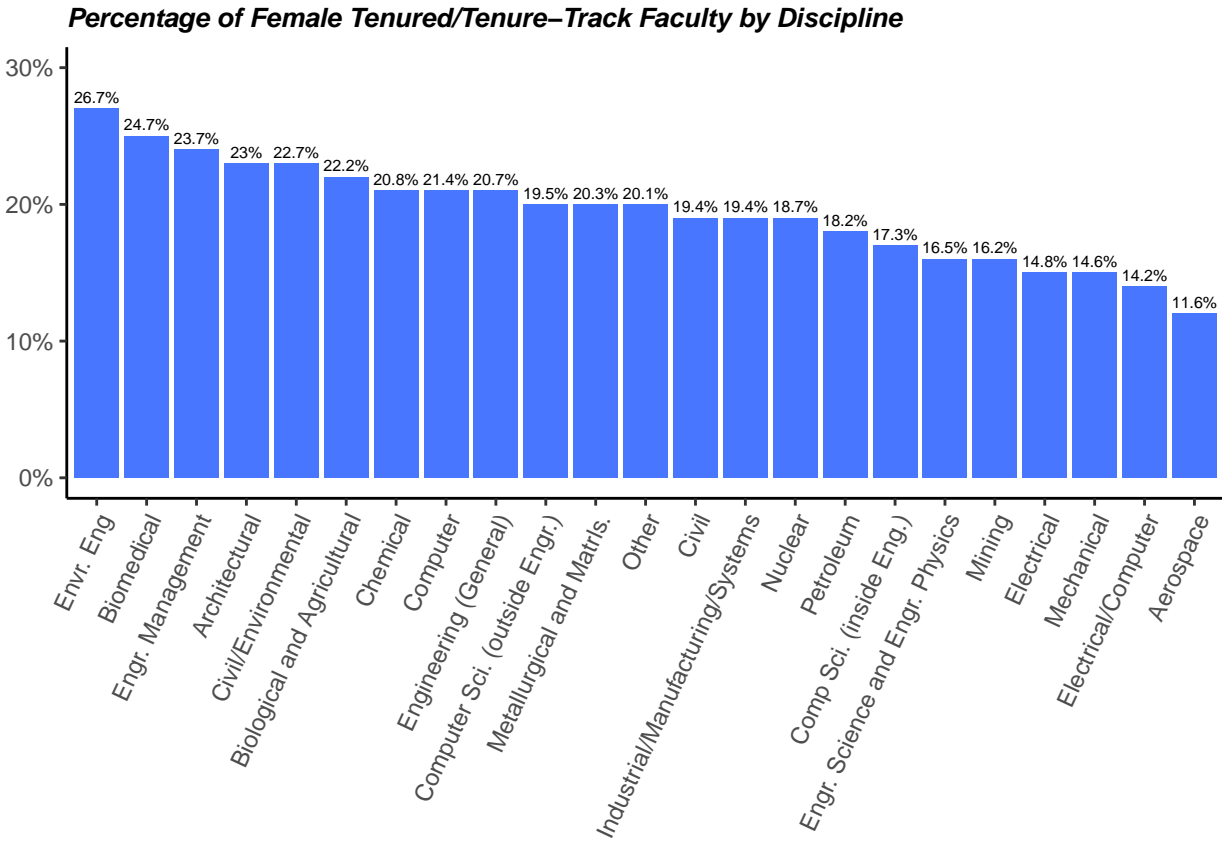
5.2 Percentage of Female Tenured/Tenure-Track Faculty by Discipline

Table 80: Percentage of Female Tenured/Tenure-Track Faculty by Discipline: 18.1 % of Total

Discipline Name	Percent Women
Envr. Eng	26.7%
<b>Biomedical</b>	24.7%
Engr. Management	23.7%
<b>Architectural</b>	23%
Civil/Environmental	22.7%
<b>Biological and Agricultural</b>	22.2%
Computer	21.4%
<b>Chemical</b>	20.8%
Engineering (General)	20.7%
<b>Metallurgical and Matrls.</b>	20.3%
Other	20.1%
<b>Computer Sci. (outside Engr.)</b>	19.5%

Table 80: Percentage of Female Tenured/Tenure-Track Faculty by Discipline: 18.1 % of Total *(continued)*

Discipline Name	Percent Women
Civil	19.4%
<b>Industrial/Manufacturing/Systems</b>	19.4%
Nuclear	18.7%
<b>Petroleum</b>	18.2%
Comp Sci. (inside Eng.)	17.3%
<b>Engr. Science and Engr. Physics</b>	16.5%
Mining	16.2%
<b>Electrical</b>	14.8%
Mechanical	14.6%
<b>Electrical/Computer</b>	14.2%
Aerospace	11.6%



5.3 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	574
2	<b>University of Illinois at Urbana-Champaign</b>	466
3	Texas A&M University	436
4	<b>University of Michigan</b>	428
5	Virginia Polytechnic Institute and State University	395
6	<b>Purdue University</b>	391
7	Massachusetts Institute of Technology	390
8	<b>The Pennsylvania State University</b>	381
9	North Carolina State University	370
10	<b>Arizona State University</b>	325
11	The University of Texas at Austin	315
12	<b>University of Florida</b>	309
13	The Ohio State University	298
14	<b>Carnegie Mellon University</b>	297
15	Stanford University	278
16	<b>Cornell University</b>	276
17	University of Washington in Seattle	274
18	<b>University of Wisconsin-Madison</b>	261
19	University of California, Berkeley	258
19	<b>University of Maryland, College Park</b>	258
21	Iowa State University	255
22	<b>University of Minnesota -Twin Cities</b>	245
23	University of California, San Diego	237
24	<b>Clemson University</b>	236
25	University of California, Irvine	225
26	<b>University of Utah</b>	221
27	Northeastern University	215
28	<b>The Johns Hopkins University</b>	212
28	University of California, Davis	212
30	<b>Michigan State University</b>	210
31	Colorado School of Mines	209
32	<b>Northwestern University</b>	207

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

No	Institutions	Number of Faculty
33	University of Nebraska, Lincoln	199
<b>34</b>	<b>University at Buffalo, SUNY</b>	196
35	University of Massachusetts Amherst	195
<b>36</b>	<b>University of Southern California</b>	191
37	Drexel University	187
<b>38</b>	<b>University of Tennessee, Knoxville</b>	186
39	University of Colorado Boulder	184
<b>40</b>	<b>University of California, Los Angeles</b>	183
41	University of Arizona	181
<b>42</b>	<b>Columbia University</b>	178
43	Auburn University	175
<b>44</b>	<b>University of Central Florida</b>	172
44	University of Virginia	172
<b>46</b>	<b>University of Kentucky</b>	167
47	University of Puerto Rico, Mayaguez Campus	166
<b>48</b>	<b>Stony Brook University</b>	164
48	University of Houston	164
<b>50</b>	<b>Missouri University of Science and Technology</b>	163

\* 301 Institutions included

#### 5.4 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	145
<b>2</b>	<b>Texas A&amp;M University</b>	43
3	Georgia Institute of Technology	39
<b>4</b>	<b>University of Florida</b>	35
5	Massachusetts Institute of Technology	32
<b>6</b>	<b>Purdue University</b>	30
7	The University of Texas at El Paso	29
<b>7</b>	<b>Virginia Polytechnic Institute and State University</b>	29
9	University of Illinois at Urbana-Champaign	28
<b>10</b>	<b>Howard University</b>	26
11	University of Michigan	24
<b>12</b>	<b>University of California, Berkeley</b>	21
12	University of California, San Diego	21
<b>14</b>	<b>Stanford University</b>	20
14	University of California, Irvine	20
<b>16</b>	<b>Arizona State University</b>	19
16	North Carolina A&T State University	19
<b>16</b>	<b>The Pennsylvania State University</b>	19
16	The University of Texas at Austin	19
<b>20</b>	<b>University of Maryland, College Park</b>	18

\* 301 Institutions included

#### 5.5 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

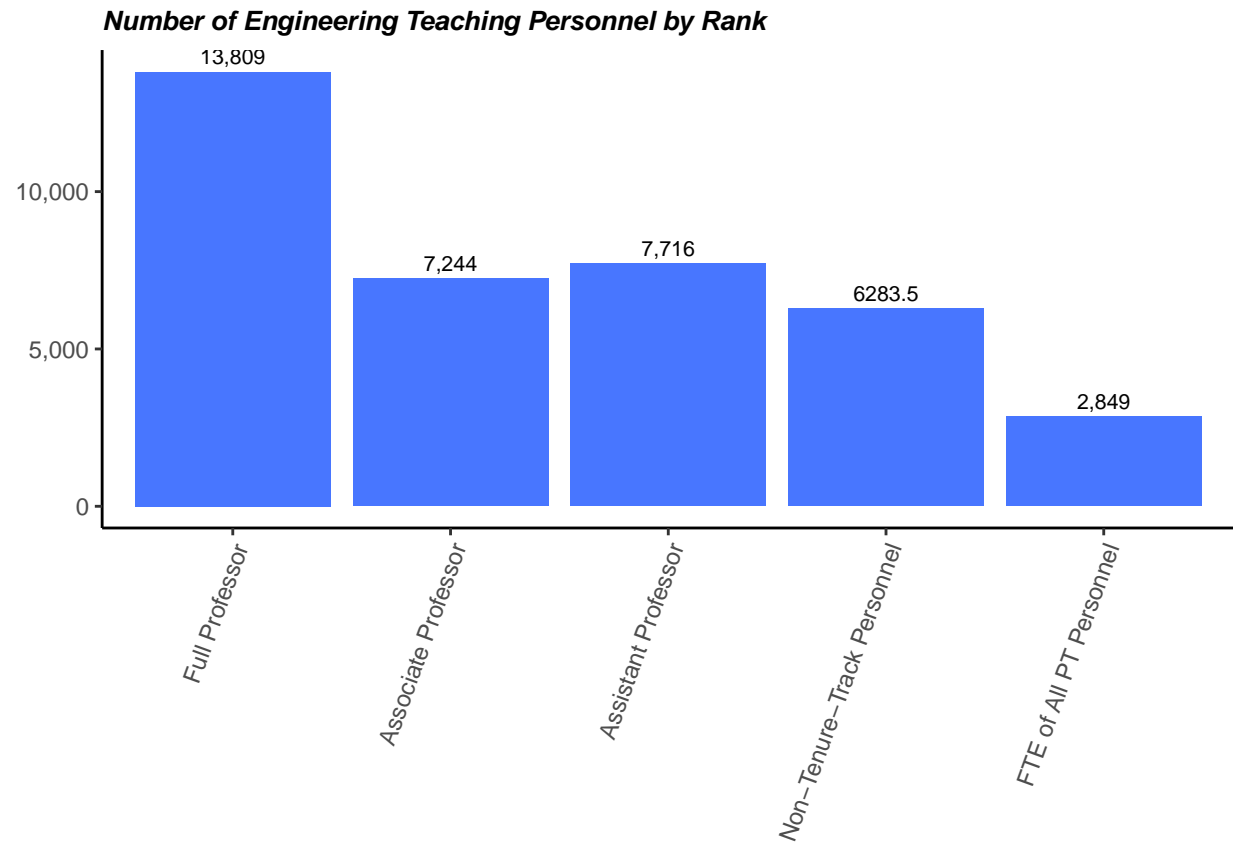
No	Institutions	Percent Underrepresented Minorities
1	University of Puerto Rico, Mayaguez Campus	87.3%
<b>2</b>	<b>Virginia State University</b>	60%
3	Howard University	57.8%
<b>4</b>	<b>Morgan State University</b>	50%
5	Abilene Christian University	37.8%
<b>6</b>	<b>The University of Texas at El Paso</b>	35.8%
7	Jackson State University	31.2%
<b>8</b>	<b>St. Mary's University</b>	28.6%
9	Tuskegee University	25.8%
<b>10</b>	<b>North Carolina A&amp;T State University</b>	25.7%
11	James Madison University	25%
<b>12</b>	<b>University of Tennessee-Chattanooga</b>	22.7%
13	Texas State University	22.2%
<b>14</b>	<b>John Brown University</b>	20%
14	Winona State University	20%
<b>16</b>	<b>The University of Texas Rio Grande Valley</b>	19%
17	University of California, Merced	16.4%
<b>18</b>	<b>FAMU-FSU College of Engineering</b>	15.9%
19	The Catholic University of America	15.4%
<b>19</b>	<b>University of San Diego</b>	15.4%

\* 301 Institutions included

5.6 Number of Engineering Teaching Personnel by Rank

Table 84: Number of Engineering Teaching Personnel by Rank 37,902

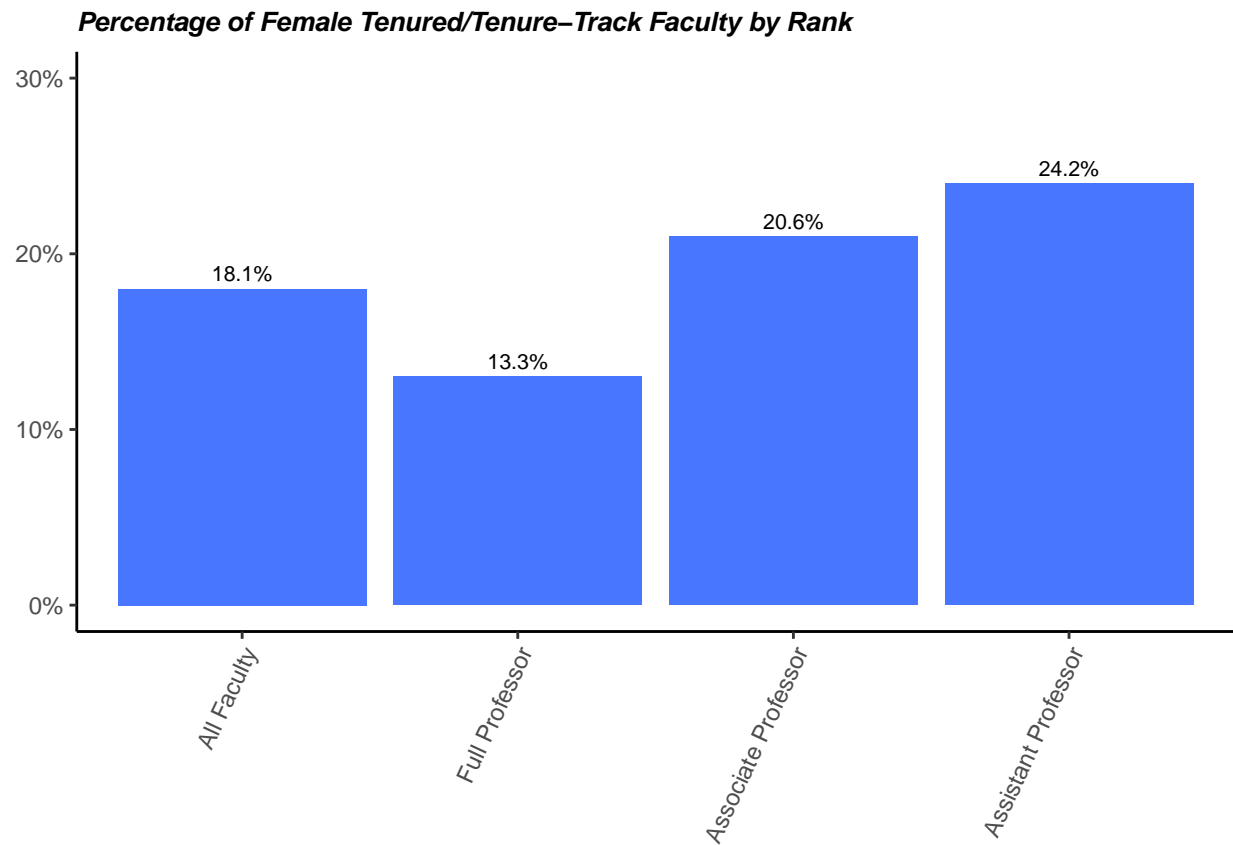
Rank	Number of Faculty
Full Professor	13,809
<b>Associate Professor</b>	7,244
Assistant Professor	7,716
<b>Non-Tenure-Track Personnel</b>	6283.5
FTE of All PT Personnel	2,849



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

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

Rank	Percent
All Faculty	18.1%
<b>Full Professor</b>	13.3%
Associate Professor	20.6%
<b>Assistant Professor</b>	24.2%



5.8 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	<b>Humboldt State University</b>	62.5%
3	Saint Ambrose University	60%
4	<b>Sweet Briar College</b>	50%
5	Seattle University	41.4%
6	<b>University of Hartford</b>	40%
7	University of Bridgeport	38.9%
8	<b>Olin College of Engineering</b>	38.1%
9	Santa Clara University	34.8%
10	<b>Middle Tennessee State University</b>	33.3%
10	Swarthmore College	33.3%
12	<b>San Jose State University</b>	32.6%
13	Mercer University	32.4%
14	<b>Loyola Marymount University</b>	32.1%
15	Lafayette College	31.6%
16	<b>University of Saint Thomas</b>	31.4%
17	California State University, Long Beach	30.3%
18	<b>Abilene Christian University</b>	29.7%
19	Roger Williams University	29.4%
19	<b>University of Washington-Tacoma</b>	29.4%
21	University of Portland	29.2%
22	<b>Gonzaga University</b>	28.6%
22	Texas Christian University	28.6%
24	<b>California Baptist University</b>	27.8%
24	California State Polytechnic University, Pomona	27.8%
26	<b>University of Massachusetts Dartmouth</b>	27.5%
27	Fairfield University	27.3%
27	<b>Union College</b>	27.3%
29	Montana State University	27.2%
30	<b>New York Institute of Technology</b>	27%
31	Gannon University	26.9%
31	<b>Trine University</b>	26.9%
31	University of San Diego	26.9%
34	<b>Bucknell University</b>	26.9%
35	University of Wisconsin, Platteville	26.8%
36	<b>University of Massachusetts Lowell</b>	26.5%
37	Tufts University	26.4%
38	<b>University of Washington in Seattle</b>	26.3%
39	Rowan University	26.2%
40	<b>Harvey Mudd College</b>	26.1%
41	Oregon Institute of Technology	25.6%
41	<b>University of Arkansas at Little Rock</b>	25.6%
43	The George Washington University	25.3%
44	<b>Baker College</b>	25%
44	James Madison University	25%
44	<b>Stevens Institute of Technology</b>	25%
44	University of Detroit Mercy	25%
44	<b>University of Maryland, Baltimore County</b>	25%
44	University of the District of Columbia	25%
44	<b>Valparaiso University</b>	25%

\* 301 Institutions included

5.9 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	122
2	<b>University of Michigan</b>	91
3	University of Illinois at Urbana-Champaign	90
4	<b>Massachusetts Institute of Technology</b>	80
5	Virginia Polytechnic Institute and State University	78
6	<b>Arizona State University</b>	74
7	Purdue University	73
8	<b>University of Washington in Seattle</b>	72
9	The Pennsylvania State University	70
10	<b>Carnegie Mellon University</b>	69
10	University of Florida	69
12	<b>Texas A&amp;M University</b>	68
13	North Carolina State University	66
14	<b>The Ohio State University</b>	64
15	Cornell University	60
16	<b>The University of Texas at Austin</b>	59
17	Stanford University	55
18	<b>University of California, Berkeley</b>	53
19	University of California, Irvine	52
20	<b>Northeastern University</b>	50

\* 301 Institutions included

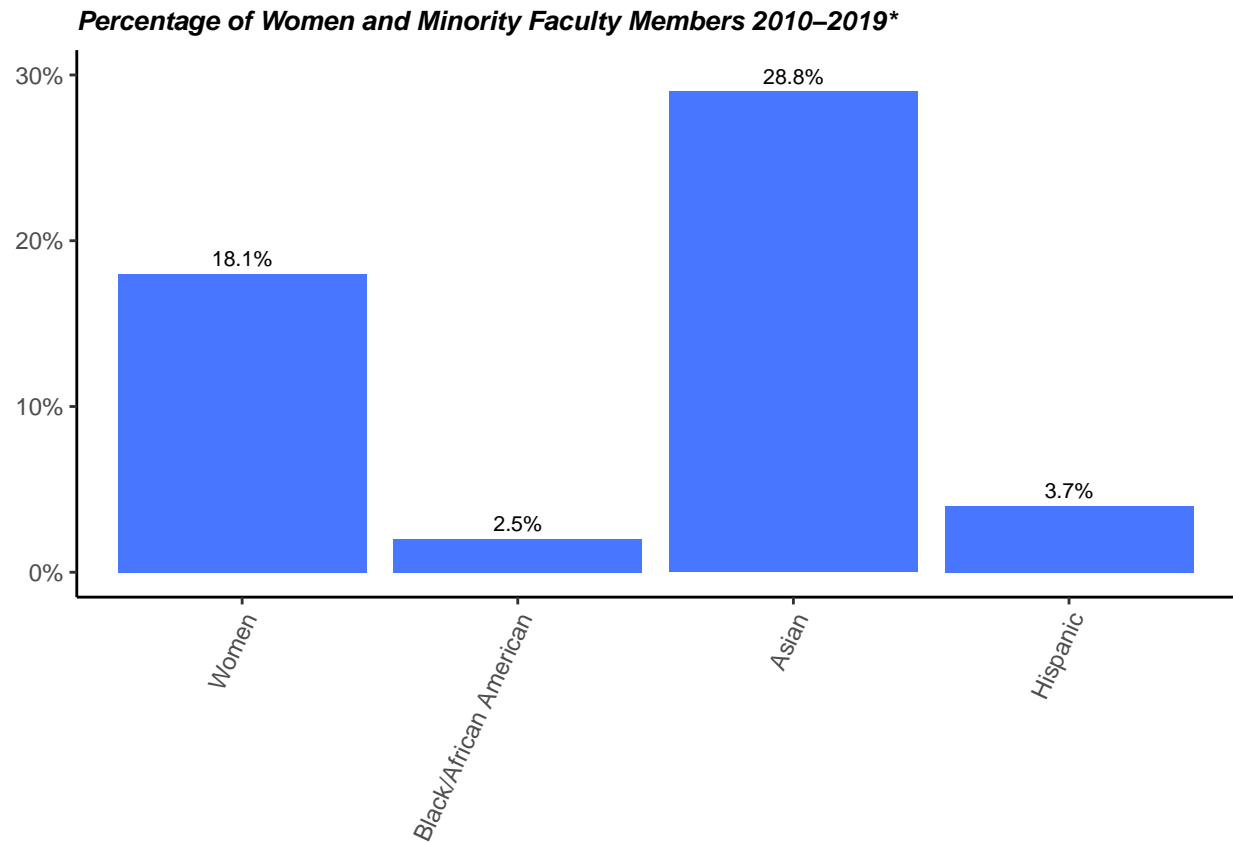


5.10 Percentage of Women and Minority Faculty Members

Table 88: Percentage of Women and Minority Faculty Members

Ethnicity	2011	2012	2013	2014	2015	2016	2017	2018	2019
Women	13.8%	14.0%	14.5%	15.2%	15.7%	16.3%	17.0%	17.6%	18.1%
Black or Afr. American	2.5%	2.7%	2.6%	2.5%	2.5%	2.3%	3.1%	2.4%	2.5%
Asian	24.1%	24.6%	25.2%	25.6%	26.9%	27.6%	26.0%	28.3%	28.8%
Hispanic	3.7%	3.9%	3.6%	3.9%	3.9%	3.7%	5.1%	3.8%	3.7%

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



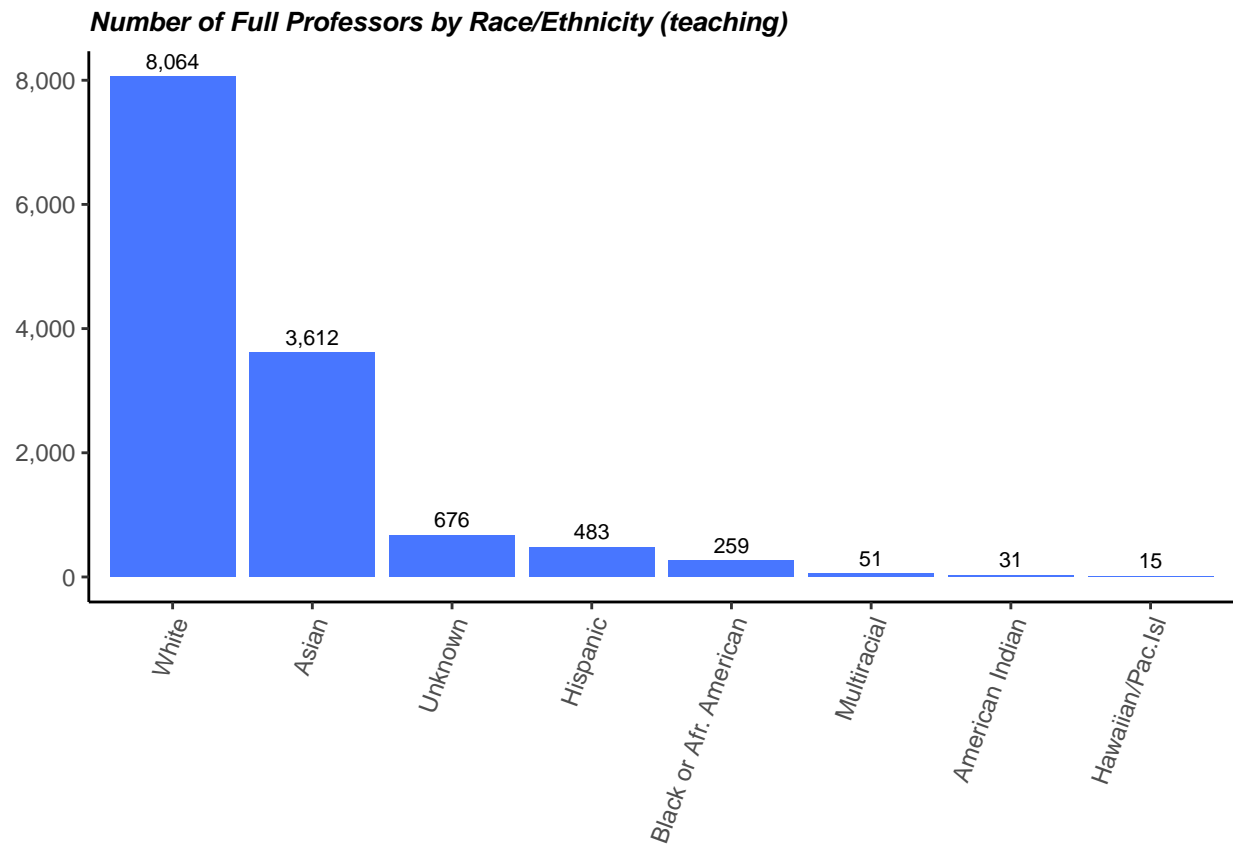
5.11 Number of Full Professors by Race/Ethnicity

Table 89: Number of Full Professors by Race/Ethnicity: 13,191

Ethnicity	Number of Faculty
White	8,064
Asian	3,612
Unknown	676
Hispanic	483
Black or Afr. American	259
Multiracial	51
American Indian	31
Hawaiian/Pac.Isl	15

\* Includes 114 Faculty from Institutions in Puertio Rico.

\* Computer Science(Outside Engineering) has been removed

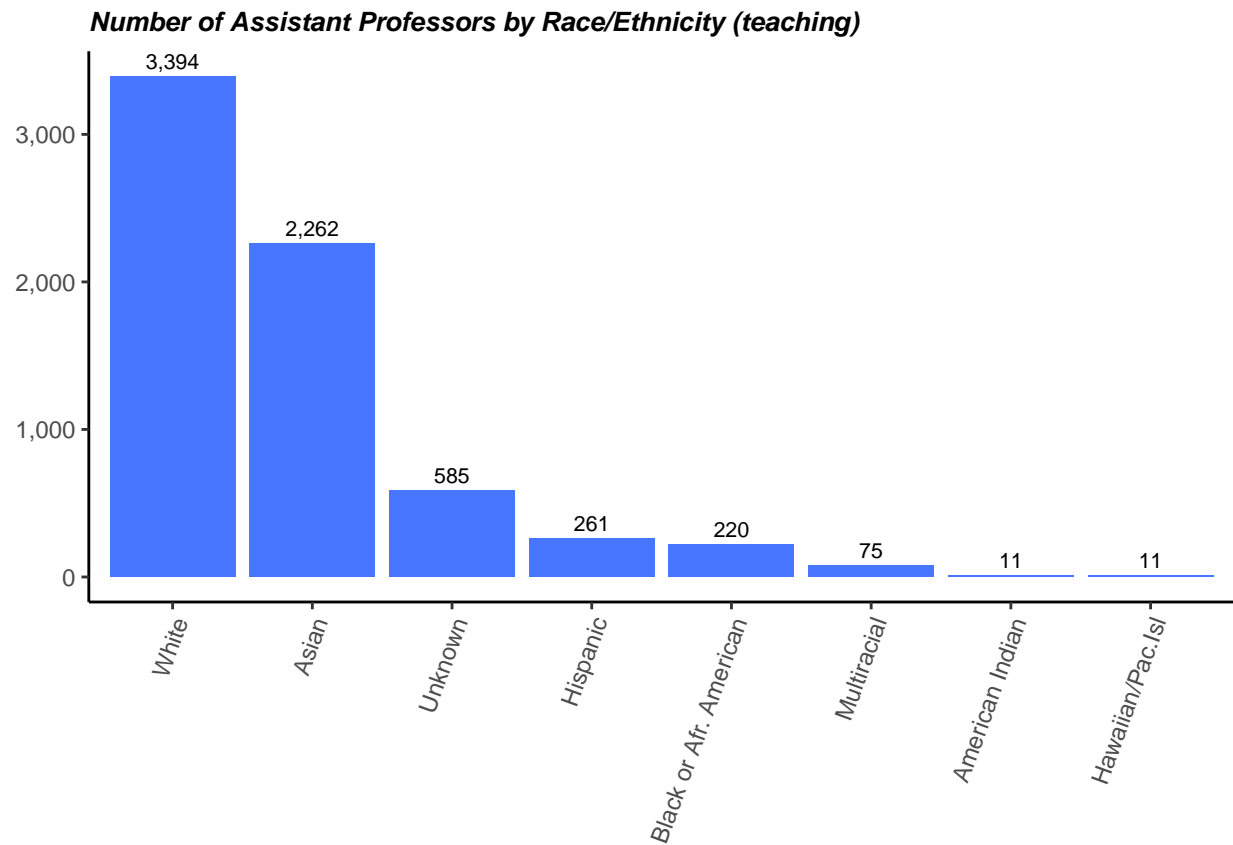


### 5.12 Number of Assistant Professors by Race/Ethnicity

Table 90: Number of Assistant Professors by Race/Ethnicity: 6,819

Ethnicity	Number of Faculty
White	3,394
<b>Asian</b>	2,262
Unknown	585
<b>Hispanic</b>	261
Black or Afr. American	220
<b>Multiracial</b>	75
American Indian	11
<b>Hawaiian/Pac.Isl</b>	11

\* Includes 20 Faculty from Institutions in Puertio Rico.  
 \* Computer Science(Outside Engineering) has been removed

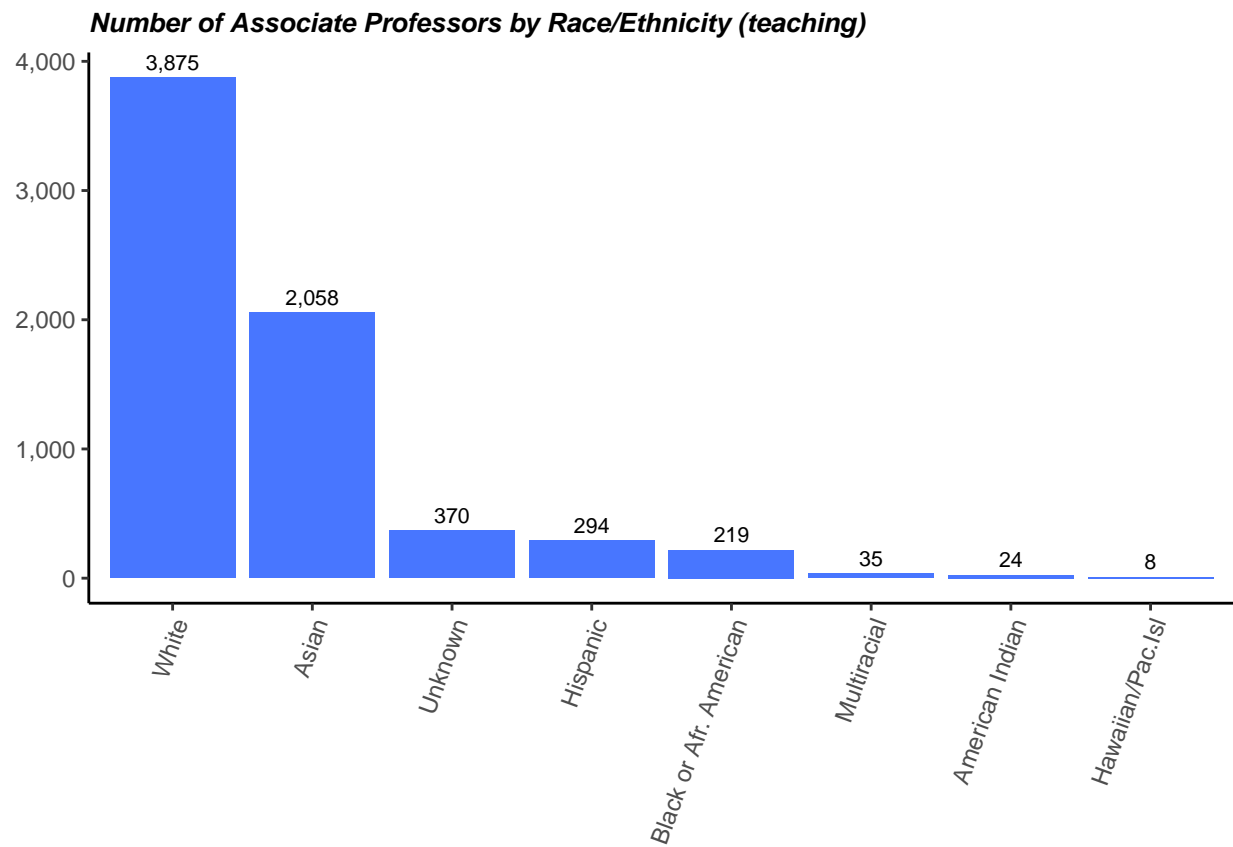


5.13 Number of Associate Professors by Race/Ethnicity

Table 91: Number of Associate Professors by Race/Ethnicity: 6,883

Ethnicity	Number of Faculty
White	3,875
<b>Asian</b>	2,058
Unknown	370
<b>Hispanic</b>	294
Black or Afr. American	219
<b>Multiracial</b>	35
American Indian	24
<b>Hawaiian/Pac.Isl</b>	8

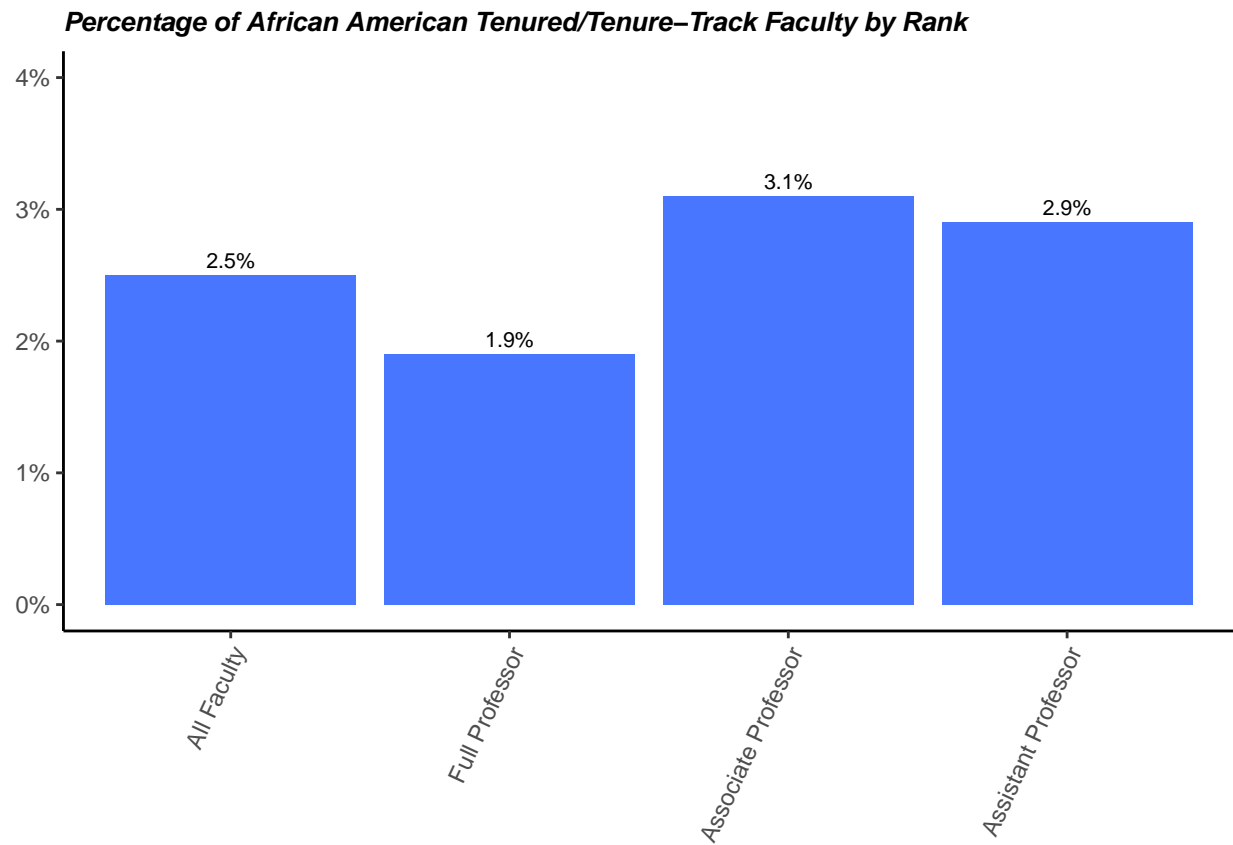
\* Includes 32 Faculty from Institutions in Puertio Rico.  
\* Computer Science(Outside Engineering) has been removed



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

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

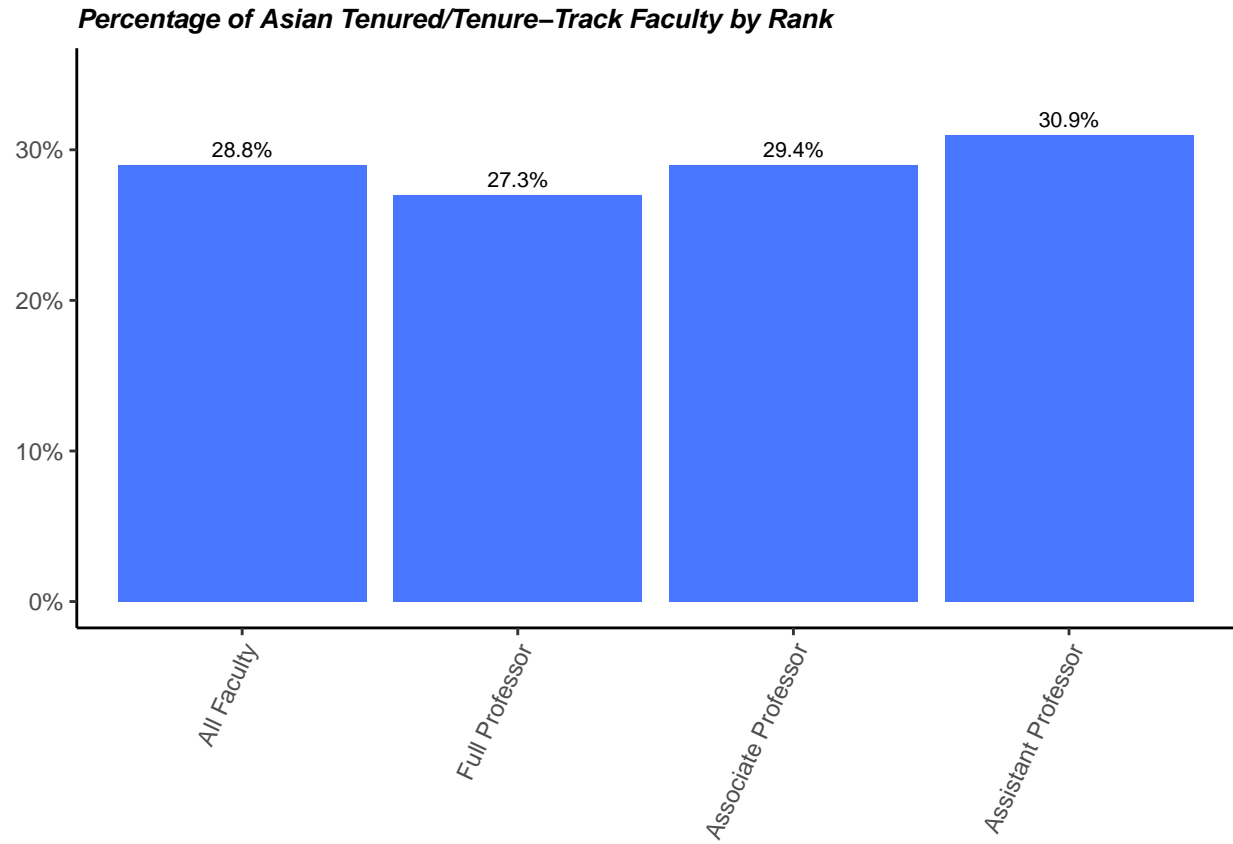
Rank	Percent
All Faculty	2.5%
<b>Full Professor</b>	1.9%
Associate Professor	3.1%
<b>Assistant Professor</b>	2.9%



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

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

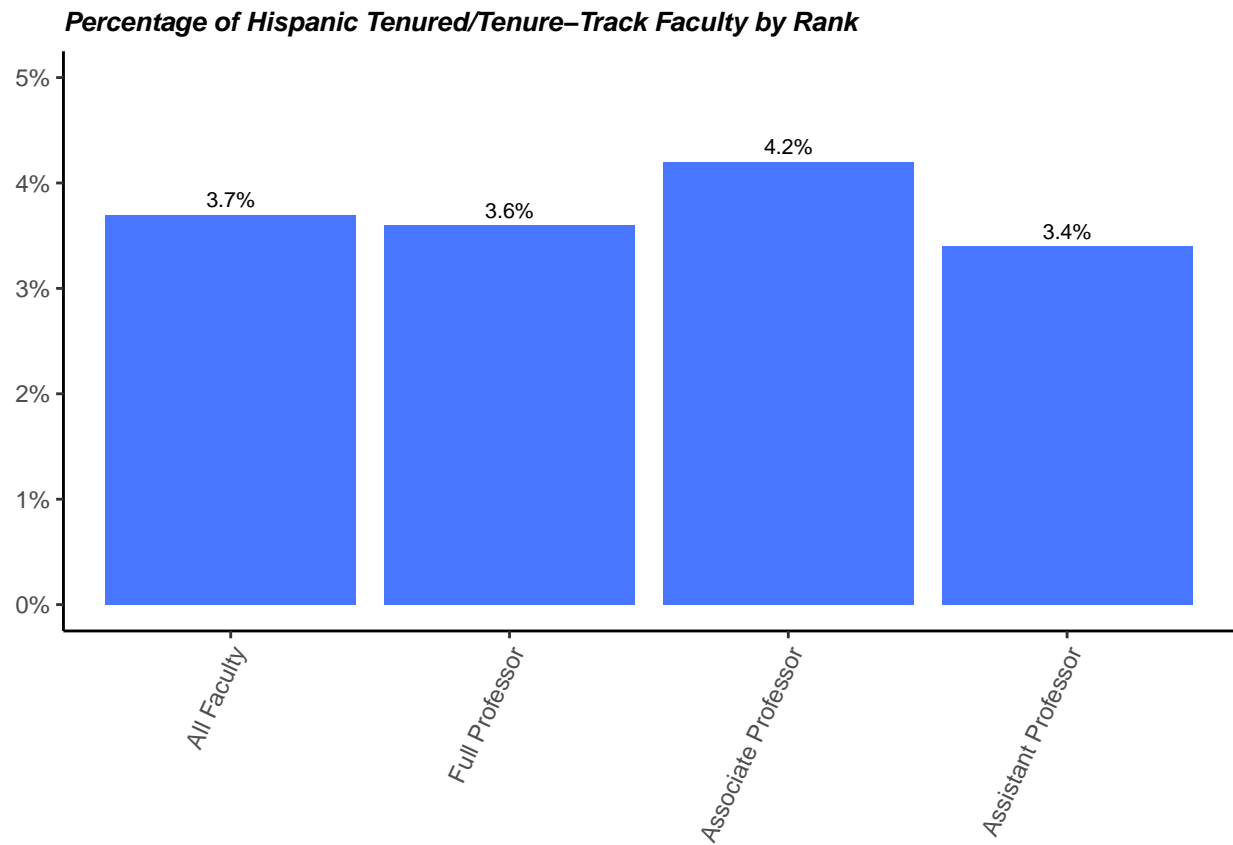
Rank	Percent
All Faculty	28.8%
<b>Full Professor</b>	27.3%
Associate Professor	29.4%
<b>Assistant Professor</b>	30.9%



5.16    Percentage of Hispanic Tenured/Tenure-Track Faculty by Rank

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

Rank	Percent
All Faculty	3.7%
<b>Full Professor</b>	3.6%
Associate Professor	4.2%
<b>Assistant Professor</b>	3.4%



### 5.17 African American Tenured/ Tenure Track Faculty by Institutions

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

No	Institutions	Number of Faculty
1	Howard University	24
2	Georgia Institute of Technology	21
3	University of Florida	19
4	North Carolina A&T State University	18
5	Morgan State University	16
6	University of Tennessee-Chattanooga	15
7	Abilene Christian University	14
7	FAMU-FSU College of Engineering	14
7	University of Michigan	14
10	Massachusetts Institute of Technology	12
10	Virginia Polytechnic Institute and State University	12
12	Cornell University	10
12	The Johns Hopkins University	10
12	University of Illinois at Urbana-Champaign	10
12	University of Maryland, College Park	10
16	Clemson University	9
17	North Carolina State University	8
17	Purdue University	8
17	Stanford University	8
17	Texas A&M University	8

\* 301 Institutions included

### 5.18 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	180
2	Texas A&M University	144
3	Purdue University	139
4	University of Illinois at Urbana-Champaign	123
5	Arizona State University	116
6	The Ohio State University	107
7	Iowa State University	105
8	University of Michigan	102
9	North Carolina State University	95
10	Virginia Polytechnic Institute and State University	94
11	University at Buffalo, SUNY	92
12	University of California, Los Angeles	91
13	University of California, San Diego	90
14	University of Florida	85
15	Michigan State University	83
16	The Pennsylvania State University	81
17	The University of Texas at Austin	78
18	University of Central Florida	74
18	University of Minnesota -Twin Cities	74
20	The University of Texas at Arlington	72

\* 301 Institutions included

5.19 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	142
2	Texas A&M University	34
3	The University of Texas at El Paso	24
4	Purdue University	21
5	Massachusetts Institute of Technology	20
6	Georgia Institute of Technology	18
6	University of Illinois at Urbana-Champaign	18
8	University of California, San Diego	17
9	University of Florida	16
9	Virginia Polytechnic Institute and State University	16
11	Arizona State University	15
12	The University of Texas at Austin	14
12	University of California, Berkeley	14
14	The Ohio State University	13
14	University of California-Santa Cruz	13
16	Stanford University	12
16	University of California, Irvine	12
18	The Pennsylvania State University	11
18	The University of Texas at San Antonio	11
20	Auburn University	10

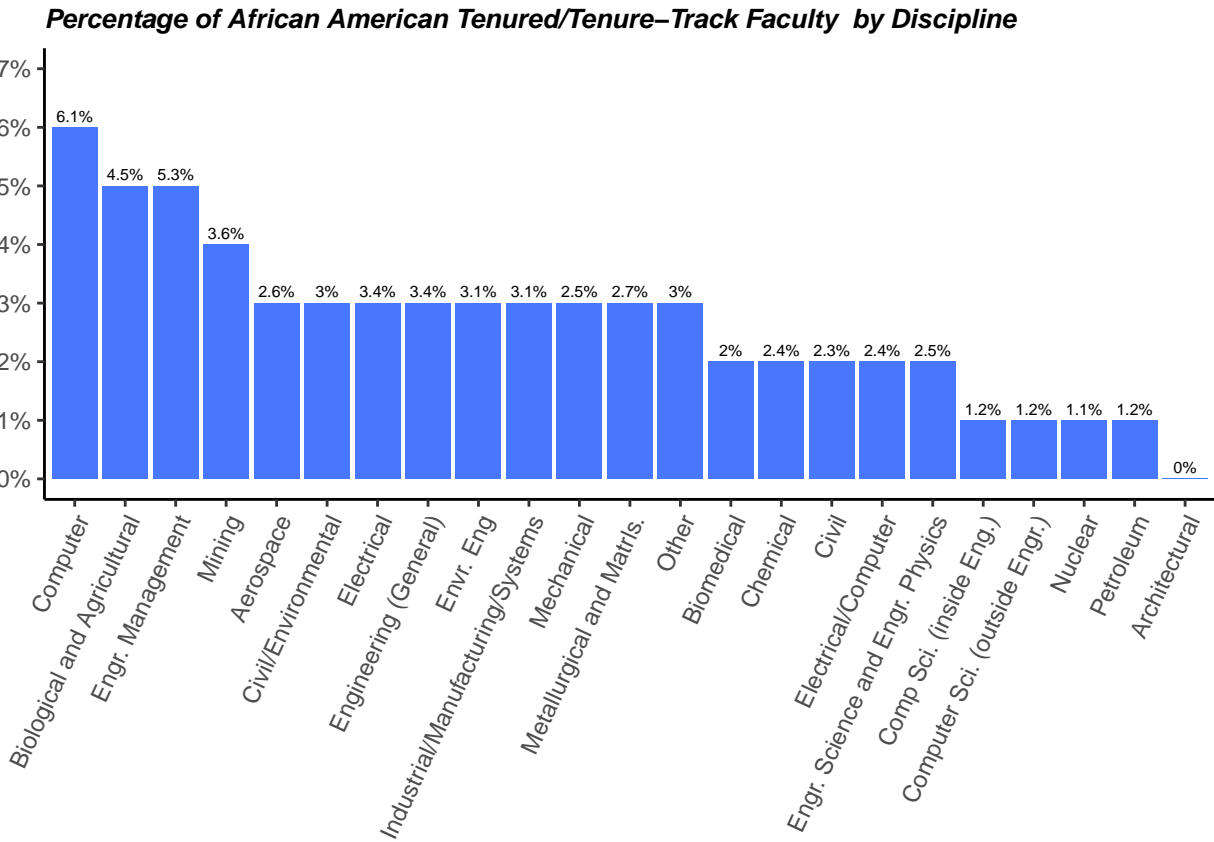
\* 301 Institutions included

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

Table 98: Percentage of African American Tenured/Tenure-Track Faculty by Discipline: 2.5 % of Total

Discipline Name	Percentage
Computer	6.1%
Engr. Management	5.3%
Biological and Agricultural	4.5%
Mining	3.6%
Electrical	3.4%
Engineering (General)	3.4%
Envr. Eng	3.1%
Industrial/Manufacturing/Systems	3.1%
Civil/Environmental	3%
Other	3%
Metallurgical and Matrls.	2.7%
Aerospace	2.6%
Engr. Science and Engr. Physics	2.5%
Mechanical	2.5%
Chemical	2.4%
Electrical/Computer	2.4%
Civil	2.3%
Biomedical	2%
Comp Sci. (inside Eng.)	1.2%
Computer Sci. (outside Engr.)	1.2%
Petroleum	1.2%
Nuclear	1.1%
Architectural	0%

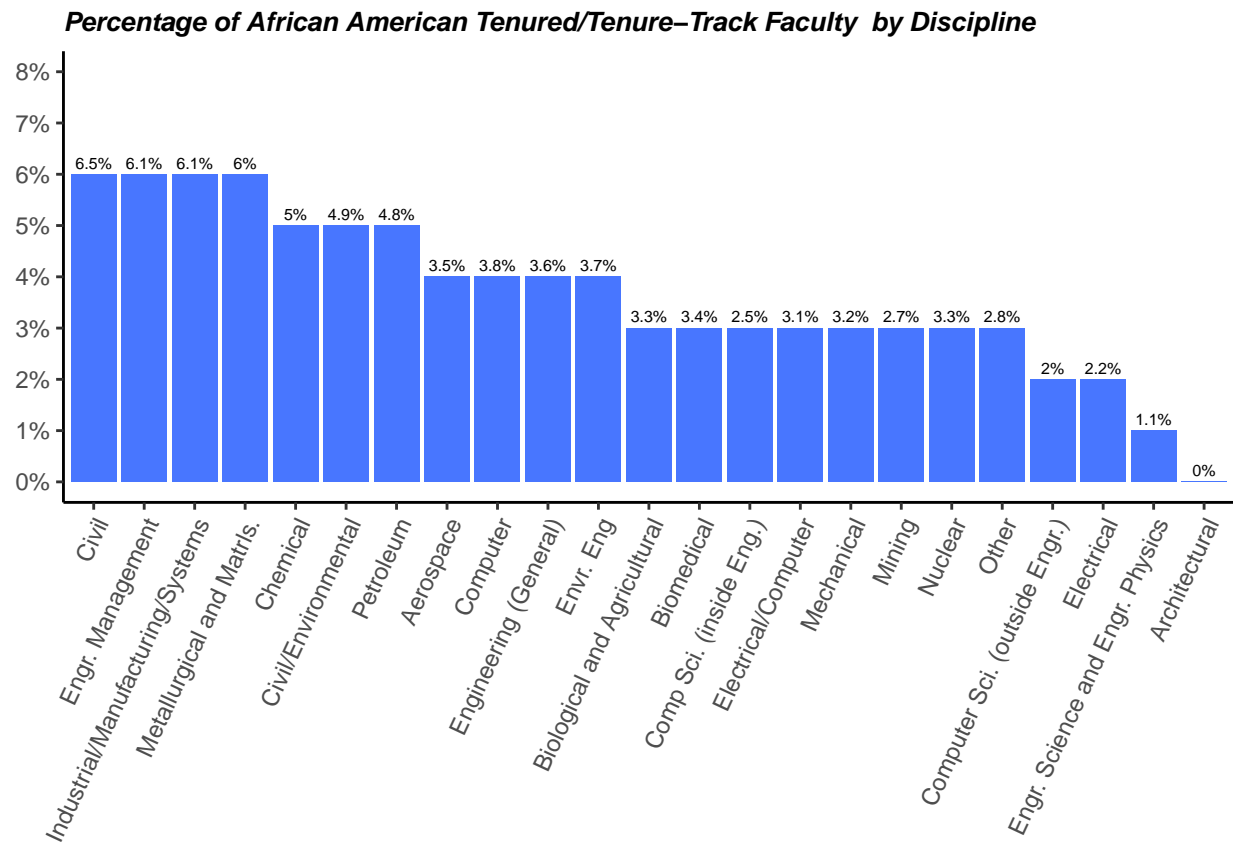




### 5.21 Percentage of Hispanic Tenured/Tenure-Track Faculty by Discipline

Table 99: Percentage of Hispanic Tenured/Tenure-Track Faculty by Discipline: 3.7 % of Total

Discipline Name	Percentage
Civil	6.5%
<b>Engr. Management</b>	6.1%
Industrial/Manufacturing/Systems	6.1%
<b>Metallurgical and Matrls.</b>	6%
Chemical	5%
<b>Civil/Environmental</b>	4.9%
Petroleum	4.8%
<b>Computer</b>	3.8%
Envr. Eng	3.7%
<b>Engineering (General)</b>	3.6%
Aerospace	3.5%
<b>Biomedical</b>	3.4%
Biological and Agricultural	3.3%
<b>Nuclear</b>	3.3%
Mechanical	3.2%
<b>Electrical/Computer</b>	3.1%
Other	2.8%
<b>Mining</b>	2.7%
Comp Sci. (inside Eng.)	2.5%
<b>Electrical</b>	2.2%
Computer Sci. (outside Eng.)	2%
<b>Engr. Science and Engr. Physics</b>	1.1%
Architectural	0%

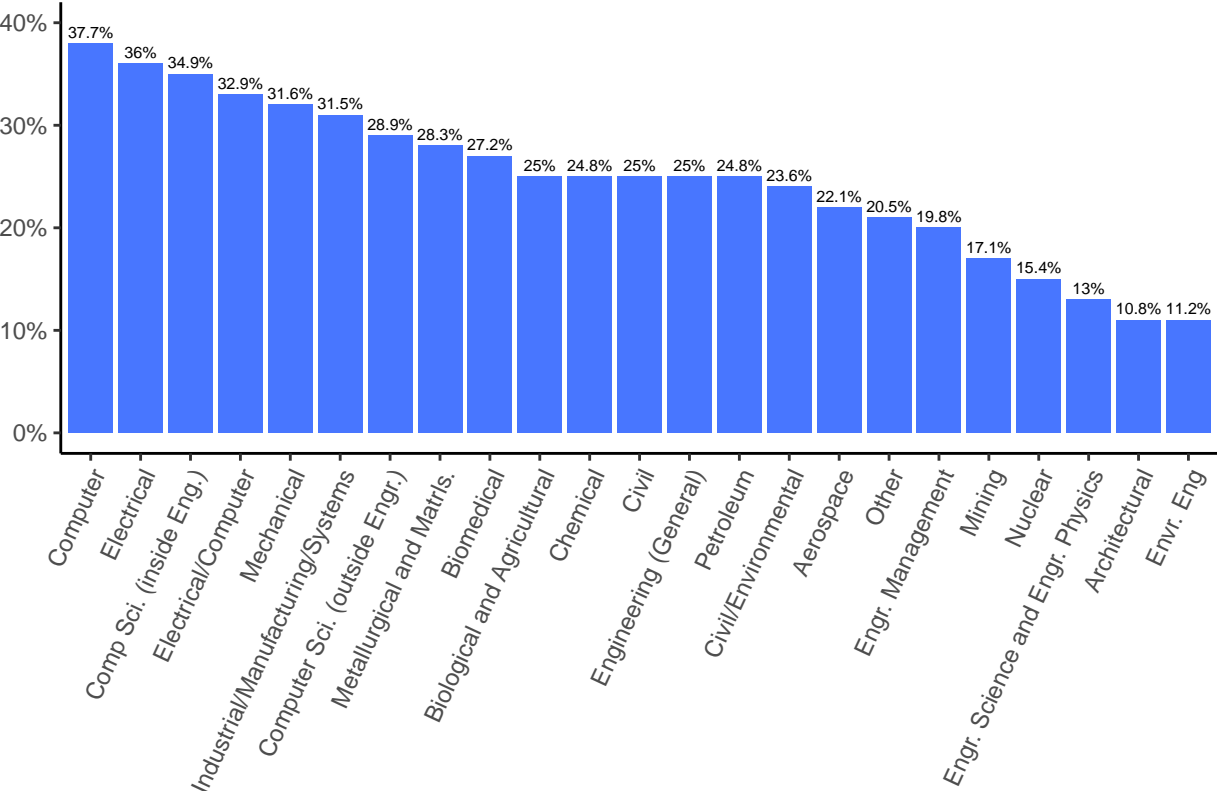


### 5.22 Percentage of Asian Tenured/Tenure-Track Faculty by Discipline

Table 100: Percentage of Asian Tenured/Tenure-Track Faculty by Discipline: 28.8 % of Total

Discipline Name	Percentage
Computer	37.7%
<b>Electrical</b>	36%
Comp Sci. (inside Eng.)	34.9%
<b>Electrical/Computer</b>	32.9%
Mechanical	31.6%
<b>Industrial/Manufacturing/Systems</b>	31.5%
Computer Sci. (outside Engr.)	28.9%
<b>Metallurgical and Matrls.</b>	28.3%
Biomedical	27.2%
<b>Biological and Agricultural</b>	25%
Civil	25%
<b>Engineering (General)</b>	25%
Chemical	24.8%
<b>Petroleum</b>	24.8%
Civil/Environmental	23.6%
<b>Aerospace</b>	22.1%
Other	20.5%
<b>Engr. Management</b>	19.8%
Mining	17.1%
<b>Nuclear</b>	15.4%
Engr. Science and Engr. Physics	13%
<b>Envr. Eng</b>	11.2%
Architectural	10.8%

**Percentage of African American Tenured/Tenure–Track Faculty by Discipline**



6 ENGINEERING RESEARCH EXPENDITURES, FISCAL 2019

6.1 Top 50 Research Expenditure By Institutions

Table 101: Top 50 Research Expenditure By Institution

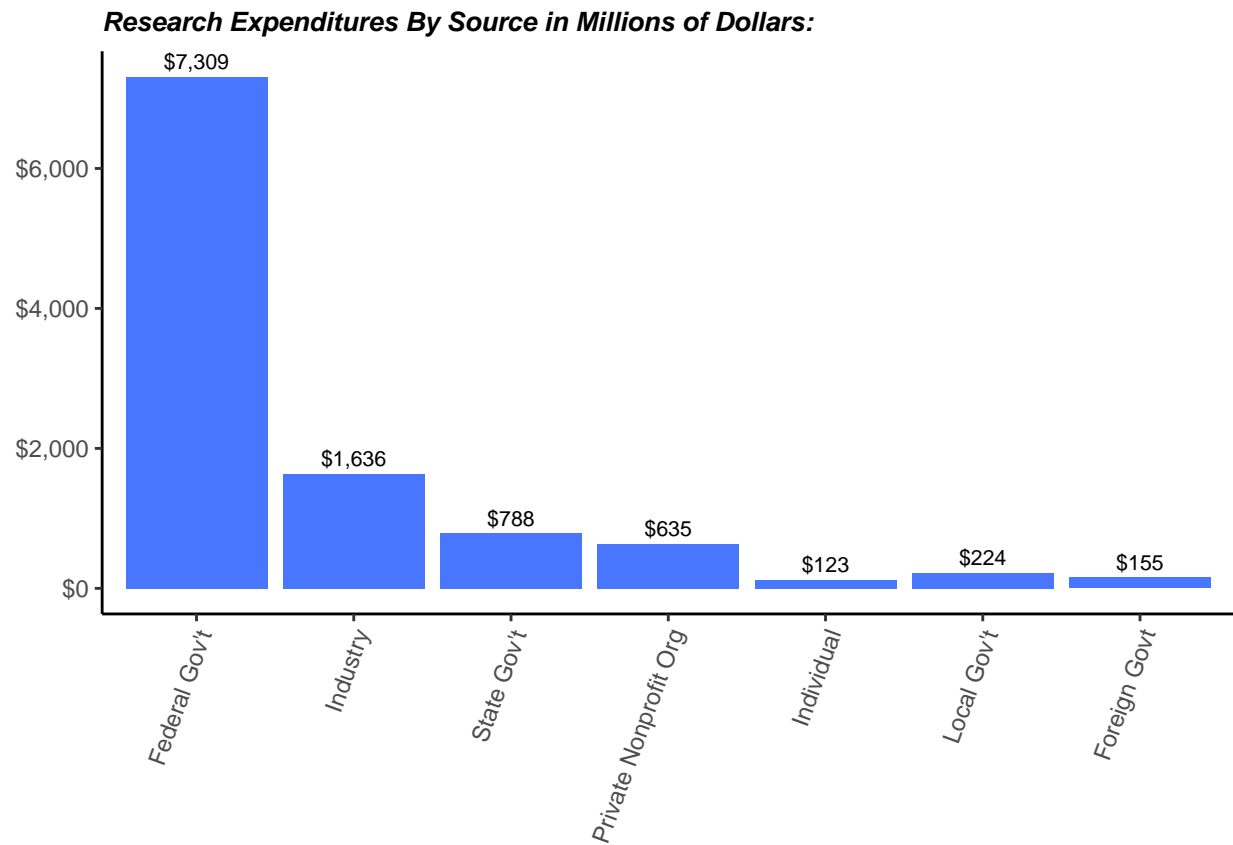
No	Institution	Expenditure(IN MILLIONS)
1	Massachusetts Institute of Technology	\$455.2
2	Texas A&M University	\$318.9
3	University of Michigan	\$307.1
4	Purdue University	\$301.8
5	Georgia Institute of Technology	\$269.5
6	Carnegie Mellon University	\$238.1
7	University of California, Berkeley	\$232.3
8	University of Illinois at Urbana-Champaign	\$228.5
9	Stanford University	\$226.4
10	The University of Texas at Austin	\$217.9
11	University of California, San Diego	\$212.5
12	University of Southern California	\$208.3
13	North Carolina State University	\$196.7
14	Wichita State University	\$193.9
15	The Johns Hopkins University	\$193.5
16	University of Maryland, College Park	\$186.6
17	Virginia Polytechnic Institute and State University	\$178.1
18	University of Washington in Seattle	\$173.1
19	University of Dayton	\$160.3
20	University of Colorado Boulder	\$149
21	Cornell University	\$148.6
22	The Ohio State University	\$145.1
23	Northwestern University	\$131.9
24	University of Wisconsin-Madison	\$130.7
25	University of Rochester	\$123.6
26	Arizona State University	\$119.3
27	Duke University	\$118.5
28	The Pennsylvania State University	\$116.9
29	University of Utah	\$111.7
30	Iowa State University	\$110.7
31	University of Pennsylvania	\$110.5
32	University of Delaware	\$101.3
33	University of California, Santa Barbara	\$99.3
34	The University of Alabama in Huntsville	\$98.9
35	University of California, Irvine	\$98.1
36	University of California, Los Angeles	\$97.8
37	Boston University	\$97
38	University of Minnesota -Twin Cities	\$96.2
39	University of California, Davis	\$94.1
40	University of Pittsburgh	\$93
41	Rutgers, The State University of New Jersey, School of Engineering	\$87.9
42	Auburn University	\$87.3
43	Northeastern University	\$87.2
44	The University of Texas at Arlington	\$84.5
45	Colorado State University	\$79.8
46	University of Virginia	\$79
47	New Jersey Institute of Technology	\$78.9
48	University at Buffalo, SUNY	\$78.3
49	University of Florida	\$78.2
50	University of Tennessee, Knoxville	\$77.4

\* 208 Institutions included

6.2 Research Expenditures By Source in Millions of Dollars

Table 102: Research Expenditures By Source in Millions of Dollars: \$10,871

Expenditure	Amount
Federal Gov't	\$7,309
Industry	\$1,636
State Gov't	\$788
Private Nonprofit Org	\$635
Individual	\$123
Local Gov't	\$224
Foreign Govt	\$155



### 6.3 Computer Science Research Expenditures Located Outside of Engineering By Institutions

Table 103: Computer Science Research Expenditures Located Outside of Engineering By Institution

No	Institution	Expenditure(IN MILLIONS)
1	Carnegie Mellon University	\$125.5
2	Georgia Institute of Technology	\$36
3	The University of Texas at Austin	\$29.1
4	University of California, Irvine	\$22.2
5	University of Massachusetts Amherst	\$20
6	University of Wisconsin-Madison	\$17
7	Northeastern University	\$16.7
8	Purdue University	\$16.2
9	The University of Alabama in Huntsville	\$15.2
10	Brown University	\$7.8
11	University of Maryland, College Park	\$5.7
12	Worcester Polytechnic Institute	\$5.7
13	Duke University	\$5.4
14	University of Massachusetts Lowell	\$4.8
15	The University of Texas at San Antonio	\$4.5
16	The University of Memphis	\$4.4
17	University of Arizona	\$4.2
18	New Jersey Institute of Technology	\$3.9
19	FAMU-FSU College of Engineering	\$3.9
20	Boston University	\$3.4

\* 36 Institutions included

7 CANADIAN ENGINEERING

7.1 Engineering Bachelor’s Degree by Canadian Institutions

Table 104: Engineering Bachelor’s Degree by Canadian Institutions

No	Institutions	Degrees Awarded
1	University of Waterloo	1,320
2	University of Toronto	1,100
3	University of British Columbia	933
4	University of Alberta	855
5	Concordia University, Montreal	788
6	McMaster University	695
7	University of Calgary	562
8	The University of Western Ontario	449

7.2 Engineering Master’s Degree by Canadian Institutions

Table 105: Engineering Master’s Degree by Canadian Institutions

No	Institutions	Degrees Awarded
1	Concordia University, Montreal	1,141
2	University of Toronto	713
3	University of Waterloo	609
4	The University of Western Ontario	417
5	University of British Columbia	373
6	McMaster University	306
7	University of Calgary	245
8	University of Alberta	240

7.3 Engineering Doctoral Degree by Canadian Institutions

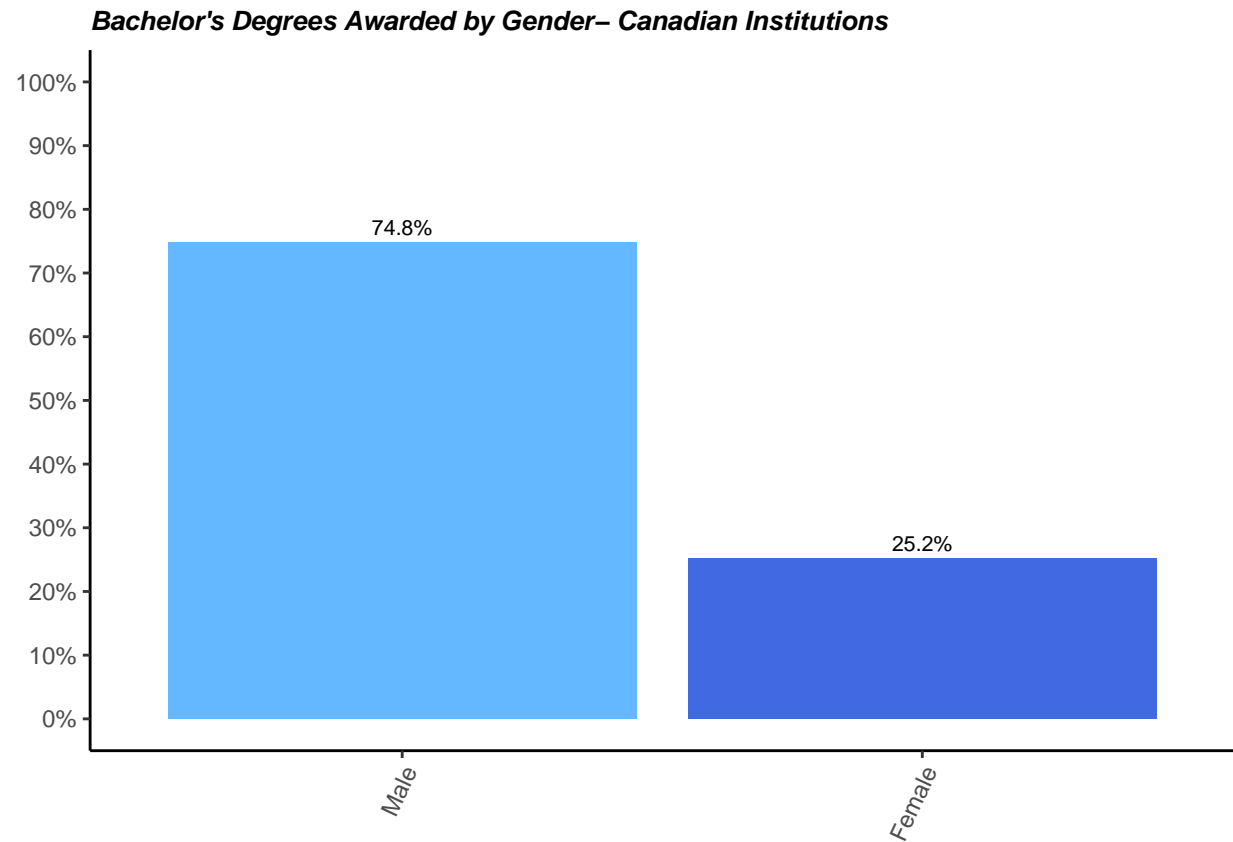
Table 106: Engineering Doctoral Degree by Canadian Institutions

No	Institutions	Degrees Awarded
1	University of Toronto	167
2	The University of Western Ontario	156
3	University of Alberta	143
4	University of Waterloo	132
5	University of Calgary	97
6	Concordia University, Montreal	92
7	University of British Columbia	79
8	McMaster University	61

7.4 Bachelor’s Degrees Awarded by Gender- Canadian Institutions

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

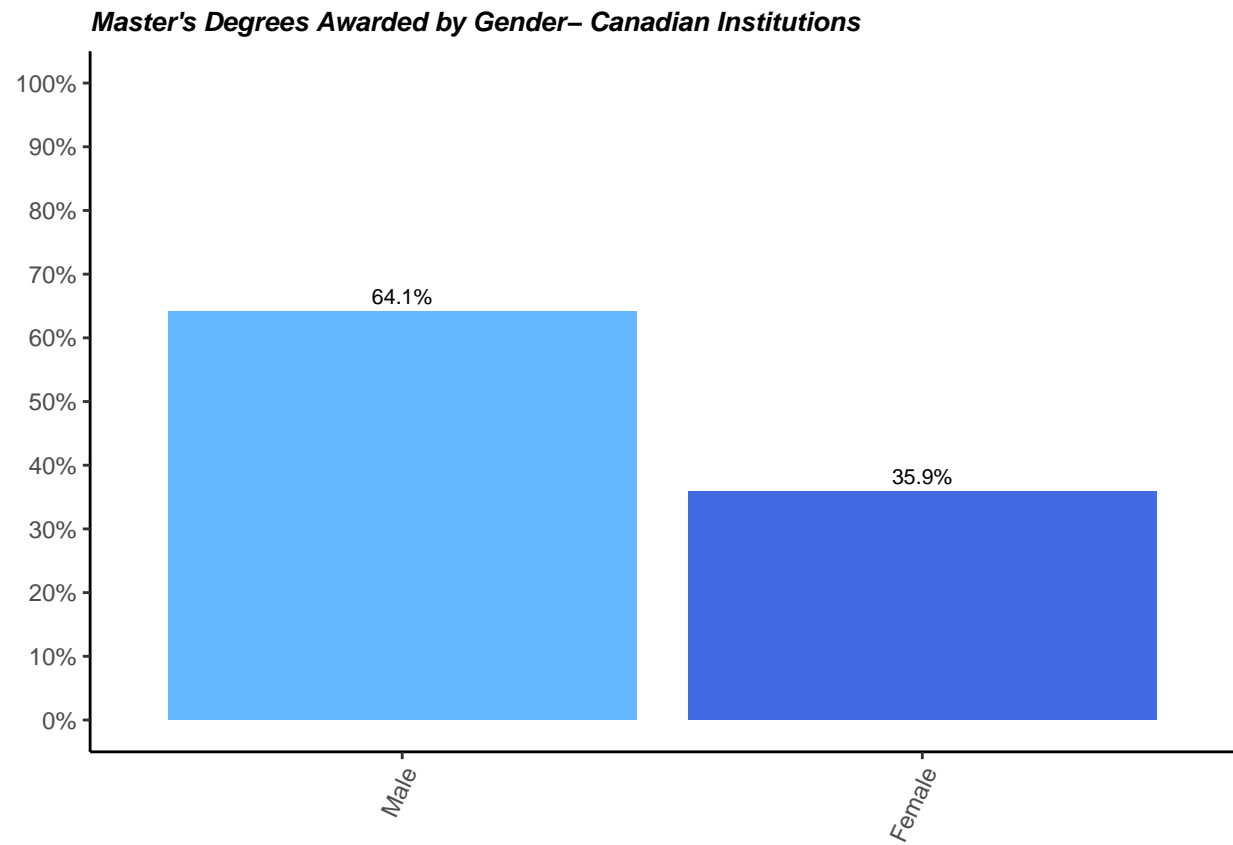
Gender	Percentage
Female	25.2%
Male	74.8%



7.5 Master’s Degrees Awarded by Gender- Canadian

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

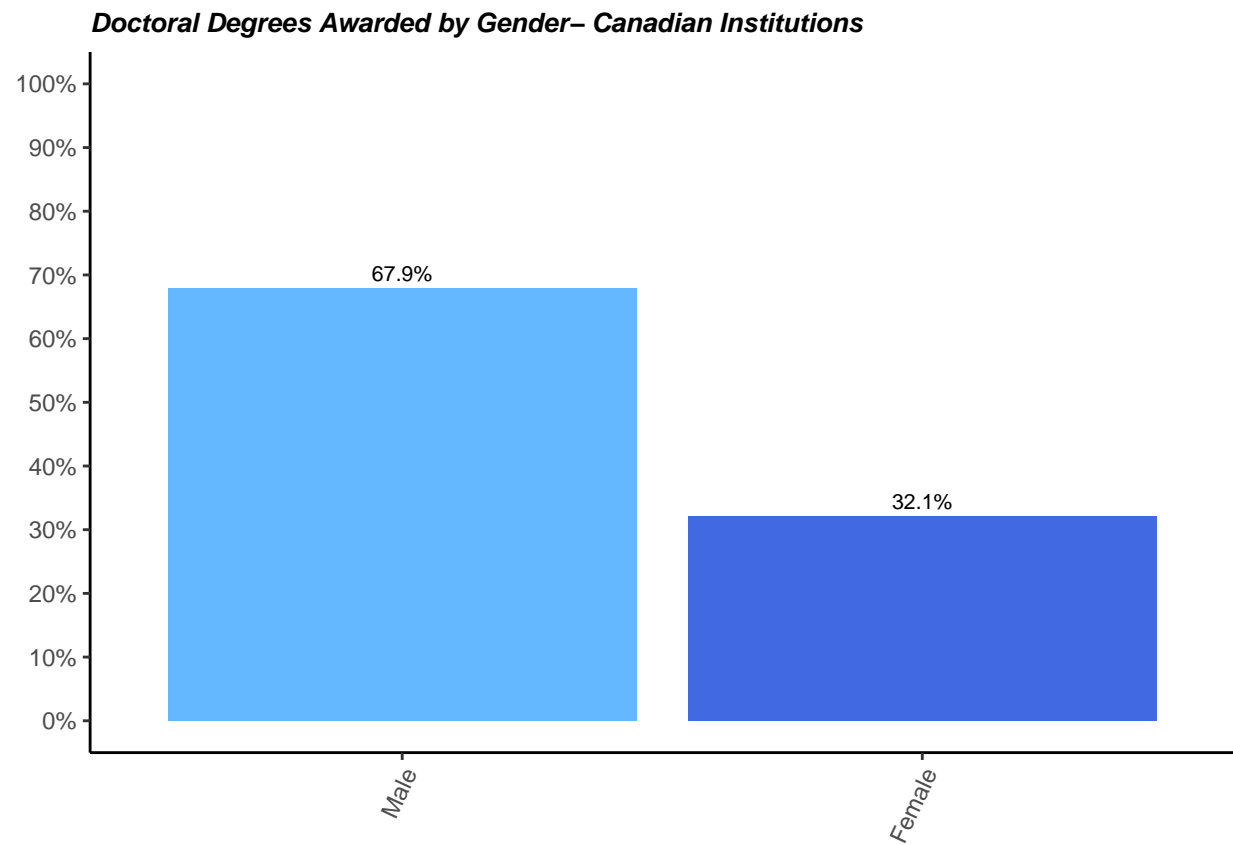
Gender	Percentage
Female	35.9%
Male	64.1%



7.6 Doctoral Degrees Awarded by Gender- Canadian Institutions

Table 109: Doctoral Degrees Awarded by Gender- Canadian Institutions

Gender	Percentage
Female	32.1%
Male	67.9%



7.7 Tenured/Tenure-Track Faculty Members by Institutions

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

No	Institutions	Degrees Awarded
1	University of Waterloo	278



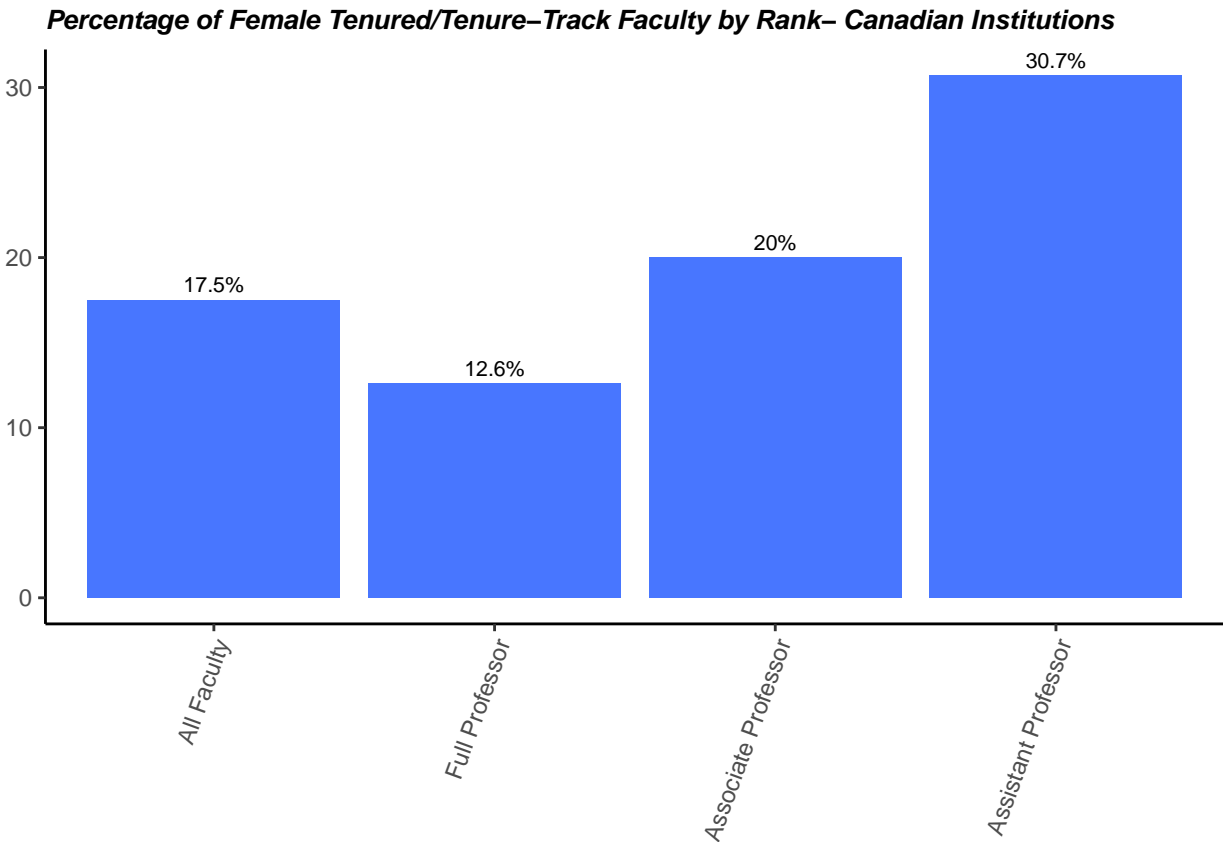
Table 110: Tenured/Tenure-Track Faculty Members by Institutions  
(continued)

No	Institutions	Degrees Awarded
2	University of Toronto	240
3	Concordia University, Montreal	222
4	University of Alberta	207
5	University of British Columbia	177
6	University of Calgary	174
7	McMaster University	146
8	The University of Western Ontario	101

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

Table 111: Doctoral Enrollment by Race and Ethnicity\*

Rank	Percent
All Faculty	17.5%
Full Professor	12.6%
Associate Professor	20%
Assistant Professor	30.7%



## 8 ENGINEERING TECHNOLOGY IN 2019

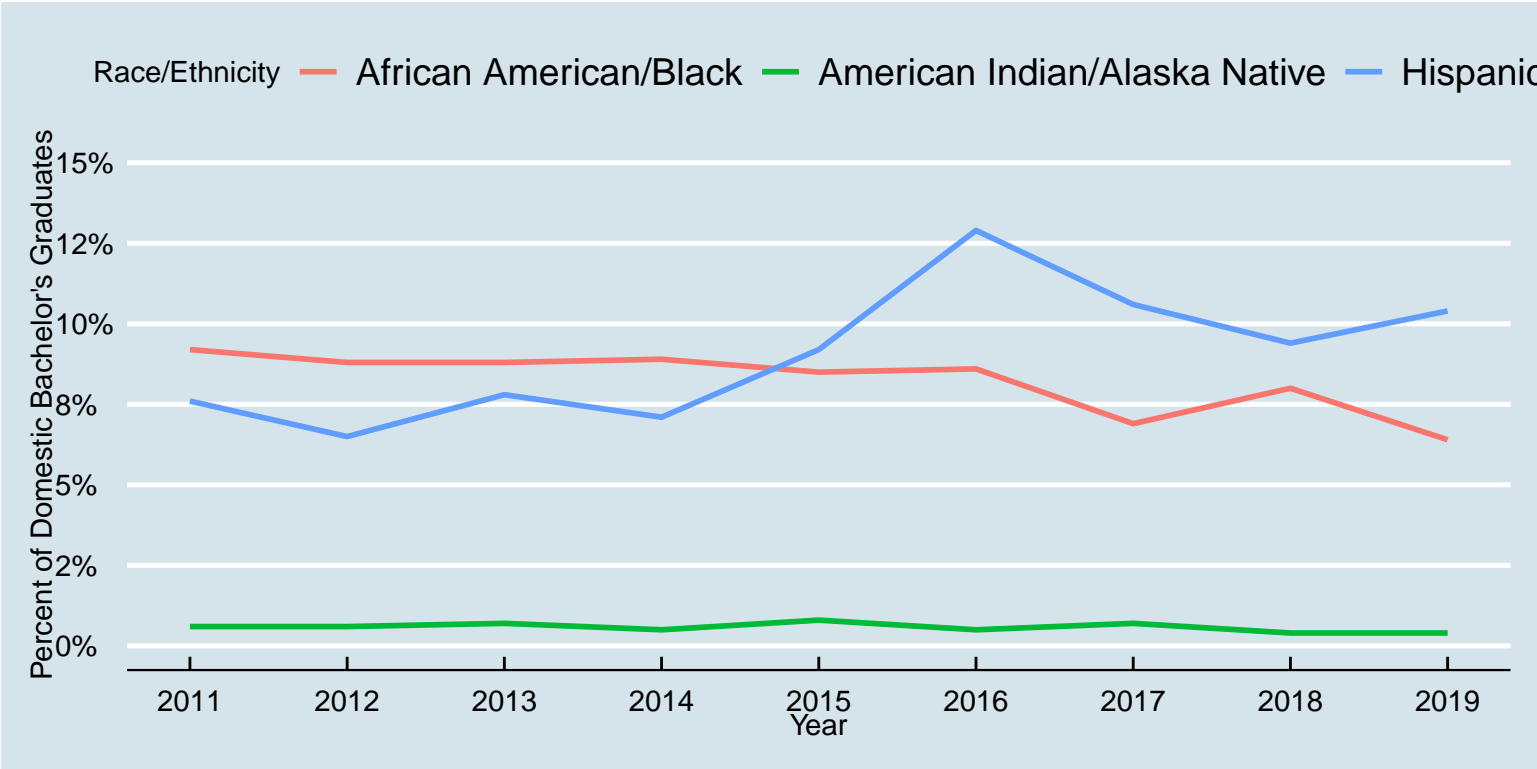
Joseph R. Roy, Ph.D.

There has been a 13.4% increase in Bachelor degrees awarded in Engineering Technology in 2019 and a sizable increase in enrollment, 20%, that could be due the inclusion of more institution's data this year (only 64 were included in 2018 versus 113 institutions in 2019).

### 8.1 Representation in Engineering Technology of Underrepresented Minorities

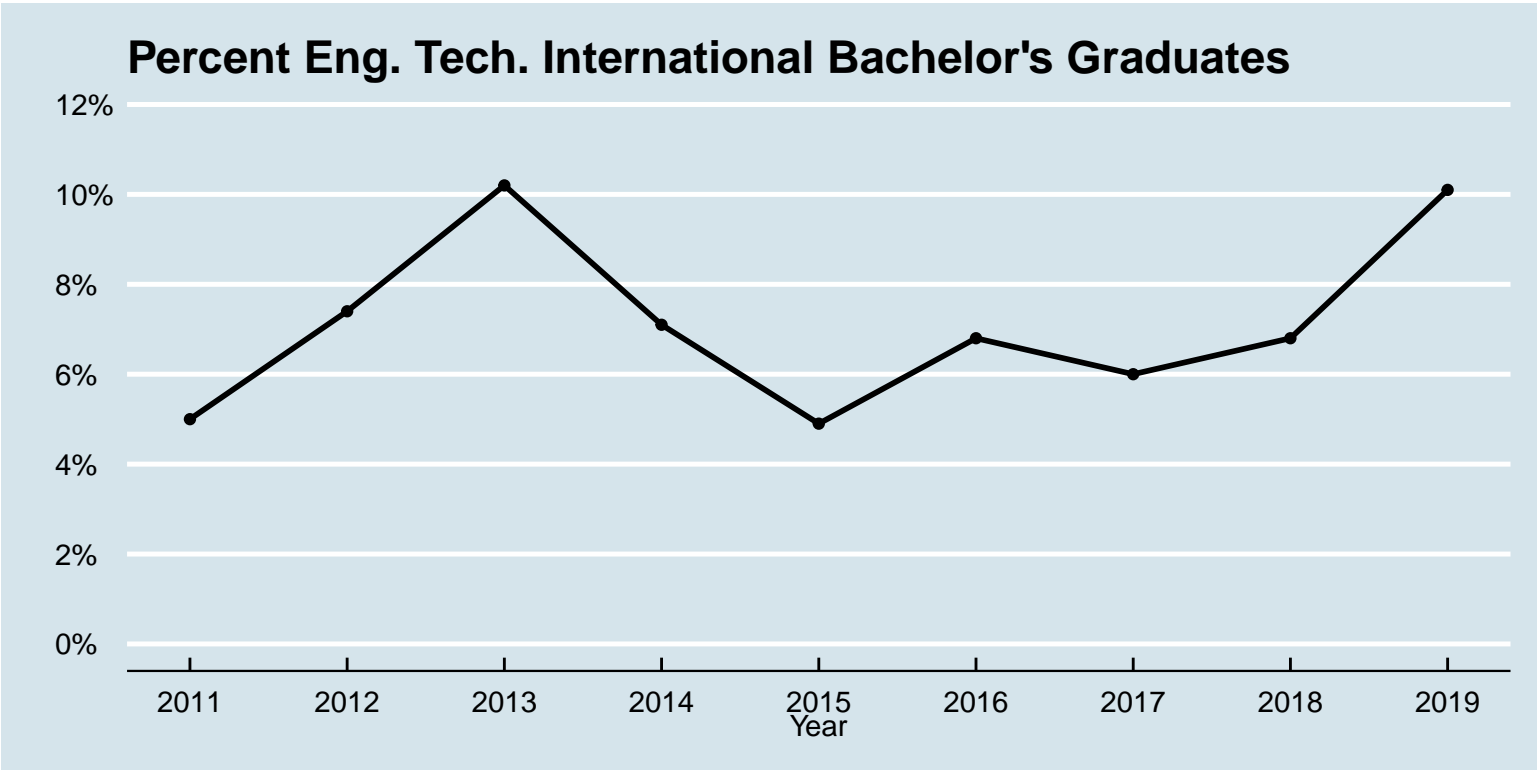
The ASEE Profiles data collection is in alignment with how the federal government collects race/ethnicity characteristics from institutions in order to ensure that institutions can report the data we are asking for. The full definition of each race/ethnicity is included in the methodology section. We use the term *underrepresented minority*(URM)to refer to three groups which have representation in the science and engineering workforce far below their representation in the adult US population. This includes Hispanic, Black/African American and American Indian/Alaskan Native individuals.

The figure below represents the percent of Bachelor's degrees in Engineering Technology awarded to URM graduates over the last 8 years. The percent of Hispanic graduates has increased from 7.6% in 2011 to 10.4% in 2019 with a steady increase in the intervening years. The percent of Black graduates, however, has no clear trend over the same time span with 9.2% in 2011 and 6.4 % in 2019 and no growth upward in the data. There has been a decline in the percent of American Indian/Alaskan Natives from 0.6% in 2011 to 0.4 % in 2019.



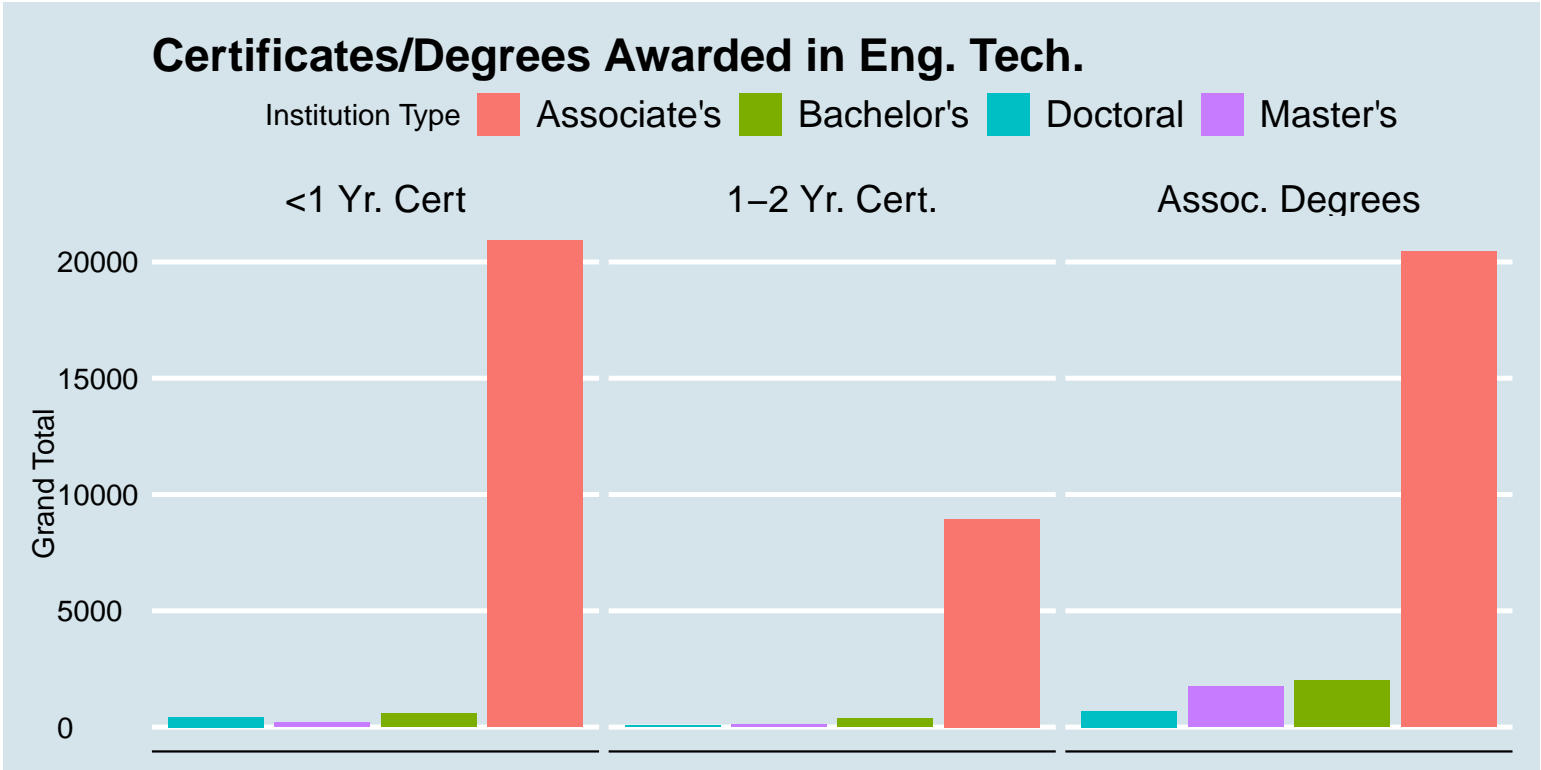
### 8.2 International Students in Engineering Technology

The data below represent the percent of international graduates within engineering technology since 2011. The percent of international students has a slight upward trend from 2015 to 2019, but only returns to the same levels as 2013.

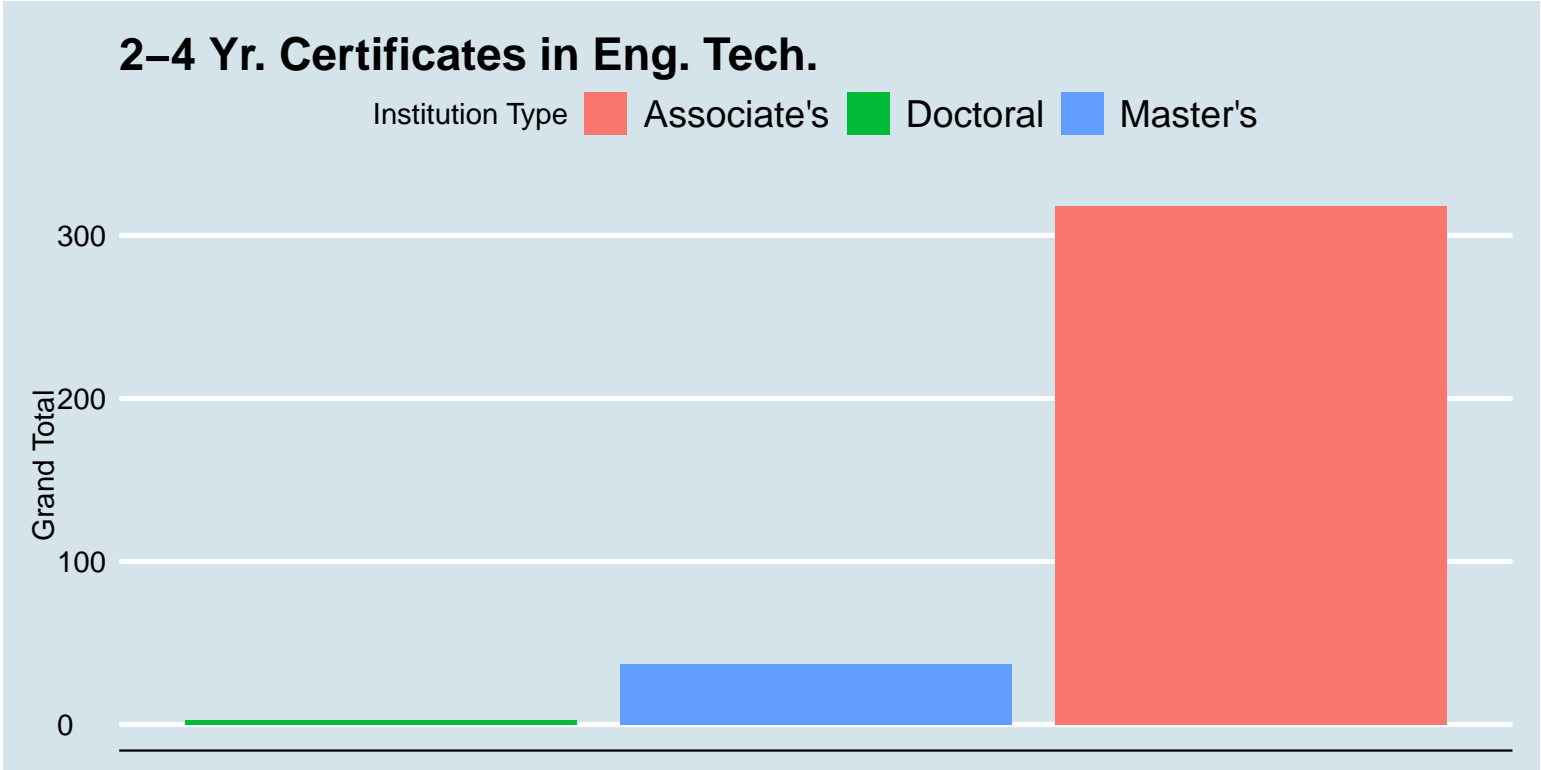


### 8.3 Engineering Technology Programs at 2-year Institutions

The NSF has funded a two-year project to extend the Profiles data collection to include 2-year institutions. This new data collection will examine not only associates degrees programs, but also certificate programs in engineering technology fields at 2-year institutions. In the figure below, the number of certificates by program length is displayed for engineering technology fields (as pulled from IPEDS data for 2019). As seen below, large majority of certificates awarded in engineering technology are at 2-year institutions.



Even though there are not many 2-4 year certificates awarded in 2019, just over 300 awarded in the US, the vast majority of those were from programs at 2-year institutions as well.



The *Profiles of Technical Workforce Programs and Students at Two-Year Colleges* will begin building a national survey instrument to further explore characteristics of these programs and field a survey of 2-year institutions in the 2021-22 academic year.

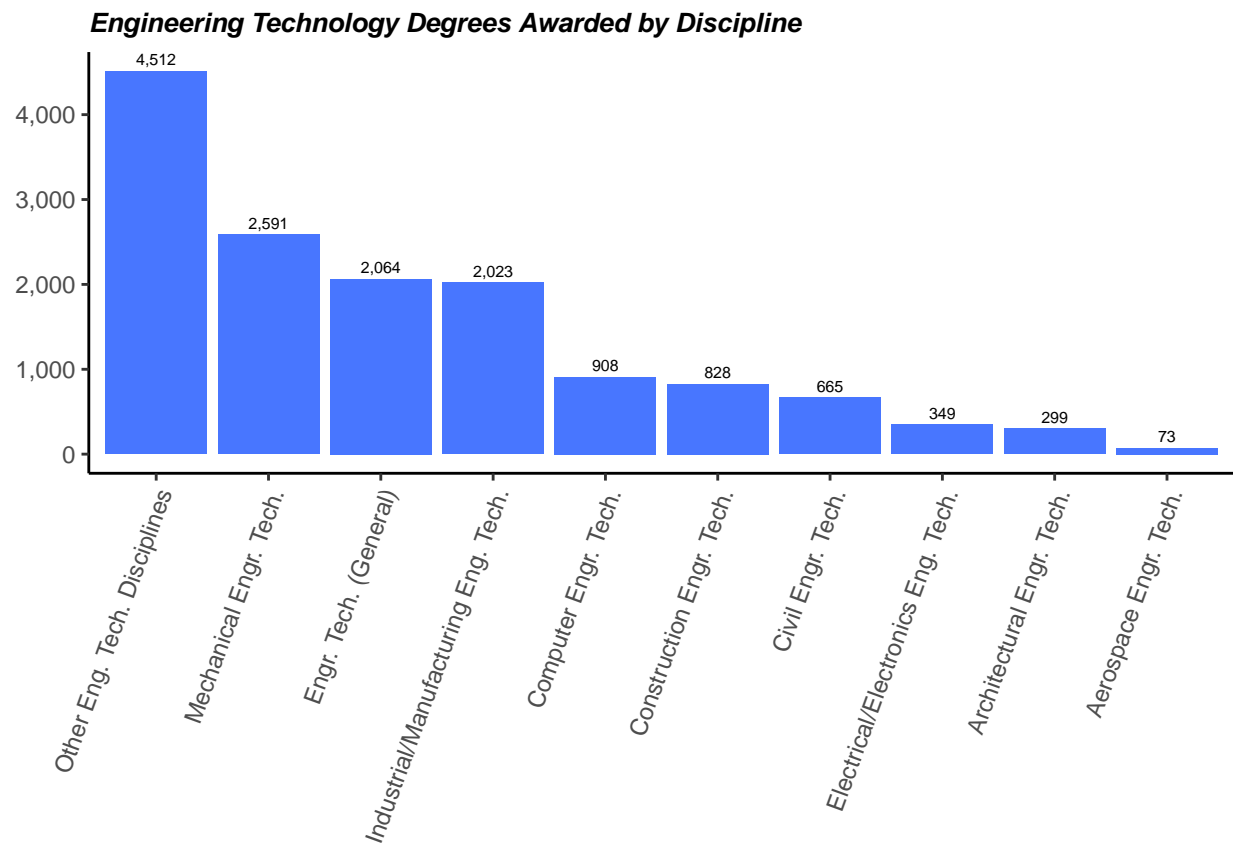
9 ENGINEERING TECHNOLOGY

9.1 ENGINEERING TECHNOLOGY DEGREES

9.1.1 Engineering Technology Degrees Awarded by Discipline

Table 112: Engineering Technology Degrees Awarded by Discipline : 14,312

Discipline Name	Degrees Awarded
Other Eng. Tech. Disciplines	4,512
<b>Mechanical Engr. Tech.</b>	2,591
Engr. Tech. (General)	2,064
<b>Industrial/Manufacturing Eng. Tech.</b>	2,023
Computer Engr. Tech.	908
<b>Construction Engr. Tech.</b>	828
Civil Engr. Tech.	665
<b>Electrical/Electronics Eng. Tech.</b>	349
Architectural Engr. Tech.	299
<b>Aerospace Engr. Tech.</b>	73



9.1.2 Engineering Technology Degrees Awarded to Underrepresented Minorities by Discipline

Table 113: Engineering Technology Degrees Awarded to Underrepresented Minorities by Engineering Discipline: 2,587

Discipline Name	Degrees Awarded
Other Eng. Tech. Disciplines	995
<b>Engr. Tech. (General)</b>	428
Mechanical Engr. Tech.	337
<b>Industrial/Manufacturing Eng. Tech.</b>	233
Computer Engr. Tech.	204
<b>Construction Engr. Tech.</b>	142
Civil Engr. Tech.	95
<b>Electrical/Electronics Eng. Tech.</b>	72
Architectural Engr. Tech.	68
<b>Aerospace Engr. Tech.</b>	13

\* Total does not include computer science (outside engineering).

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

Table 114: Percentage of Engineering Technology Degrees Awarded to Underrepresented Minorities by Discipline 17.9 % of Total

Discipline Name	Percent Women
Architectural Engr. Tech.	22.7%
<b>Computer Engr. Tech.</b>	22.5%
Other Eng. Tech. Disciplines	22.1%
<b>Engr. Tech. (General)</b>	20.7%
Electrical/Electronics Eng. Tech.	20.6%
<b>Aerospace Engr. Tech.</b>	17.8%
Construction Engr. Tech.	17.1%

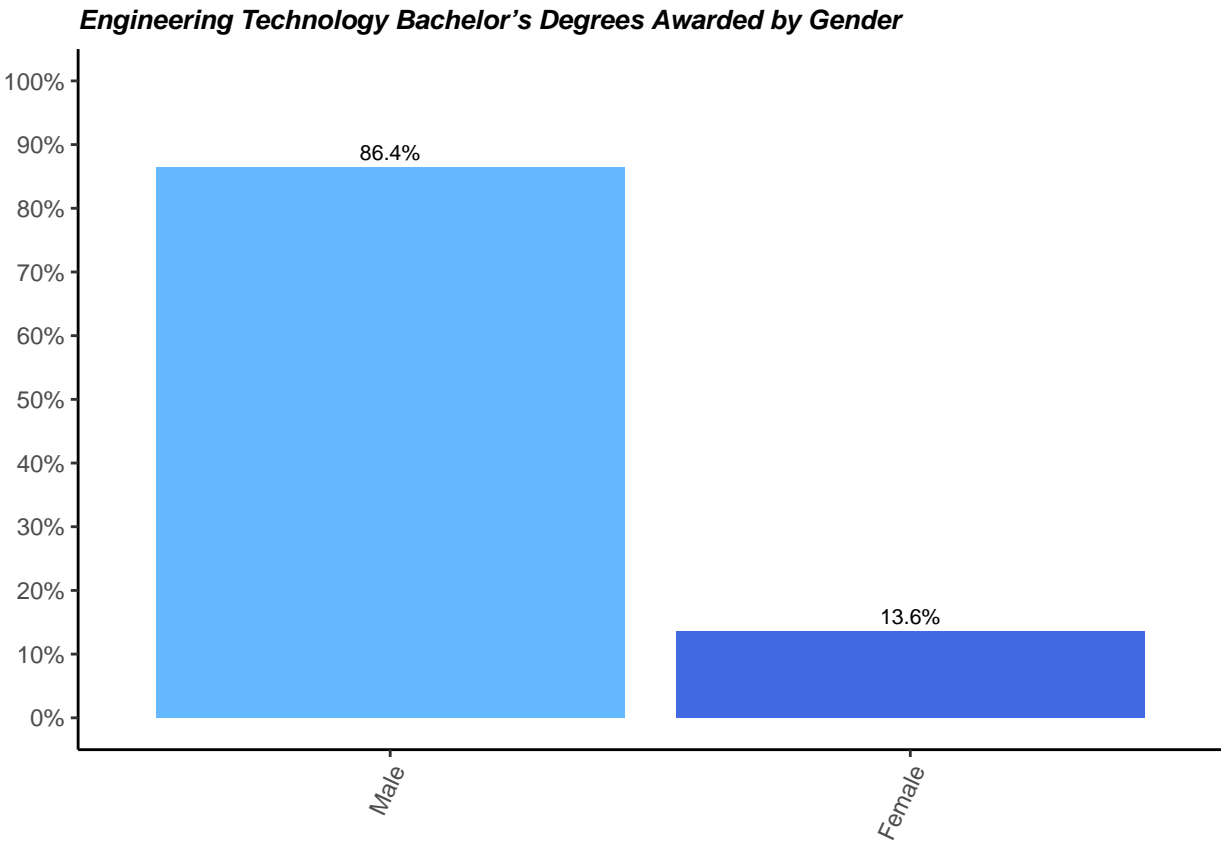
Table 114: Percentage of Engineering Technology Degrees Awarded to Underrepresented Minorities by Discipline 17.9 % of Total (*continued*)

Discipline Name	Percent Women
<b>Civil Engr. Tech.</b>	14.3%
Mechanical Engr. Tech.	13%
<b>Industrial/Manufacturing Eng. Tech.</b>	11.5%

9.1.4 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
Female	9.4%	9.5%	9.4%	10.2%	10.6%	12.8%	13.3%	14.5%	14.2%	13.6%
Male	90.6%	90.5%	90.6%	89.8%	89.4%	87.2%	86.7%	85.5%	85.8%	86.4%

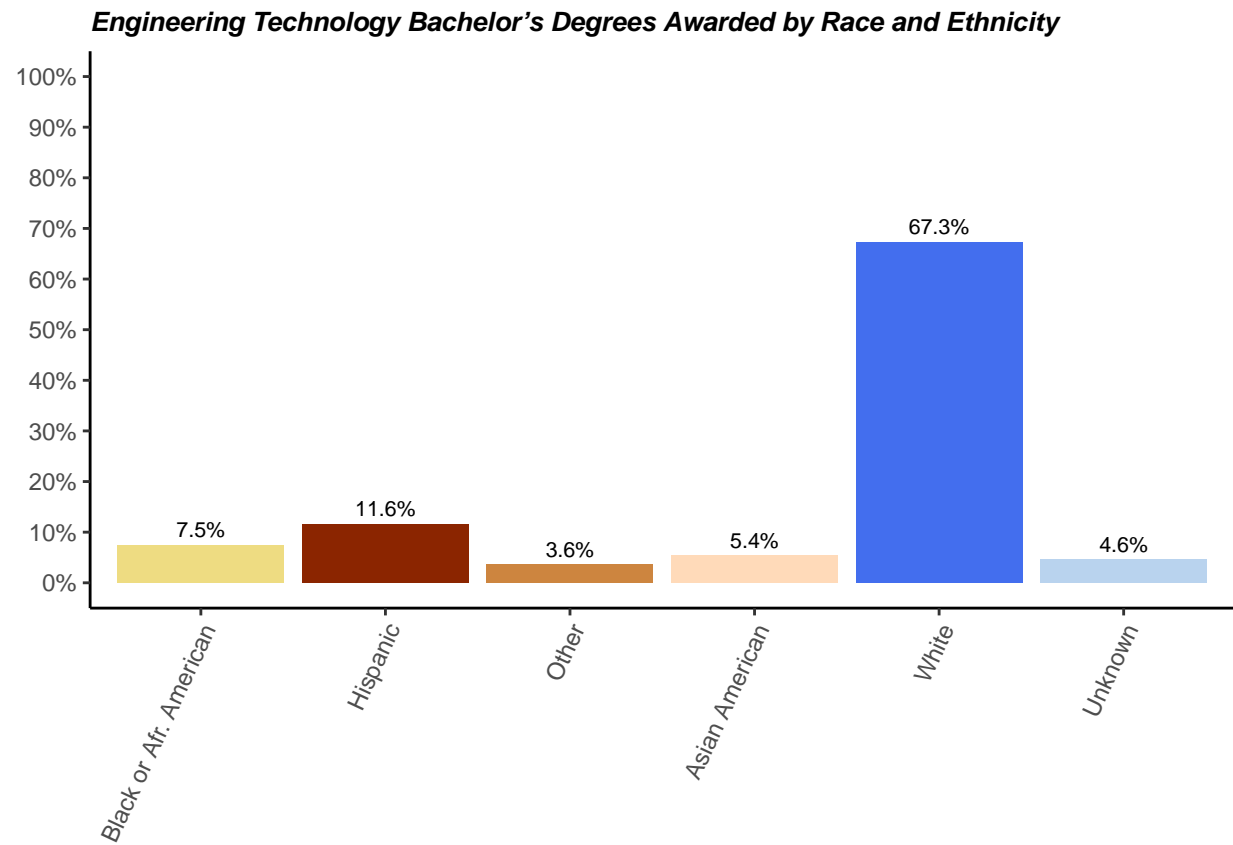


9.1.5 Engineering Technology Bachelor’s Degrees Awarded by Race and Ethnicity

Table 116: Engineering Technology Bachelor’s Degrees Awarded by Race and Ethnicity\*

Ethnicity	2011	2012	2013	2014	2015	2016	2017	2018	2019
Black or Afr. American	9.2%	8.8%	8.8%	8.9%	8.5%	8.6%	6.9%	8.0%	7.5%
<b>Hispanic</b>	7.6%	6.5%	7.8%	7.1%	9.2%	12.9%	10.6%	11.4%	11.6%
Other	1.7%	1.5%	1.9%	1.7%	3.0%	4.1%	3.3%	3.5%	3.6%
<b>Asian American</b>	5.3%	5.0%	4.9%	5.1%	5.8%	6.8%	6.4%	14.7%	5.4%
White	70.4%	73.8%	72.4%	72.7%	68.7%	63.8%	68.4%	61.5%	67.3%
<b>Unknown</b>	5.8%	4.5%	4.3%	4.5%	4.8%	3.8%	4.4%	4.2%	4.6%

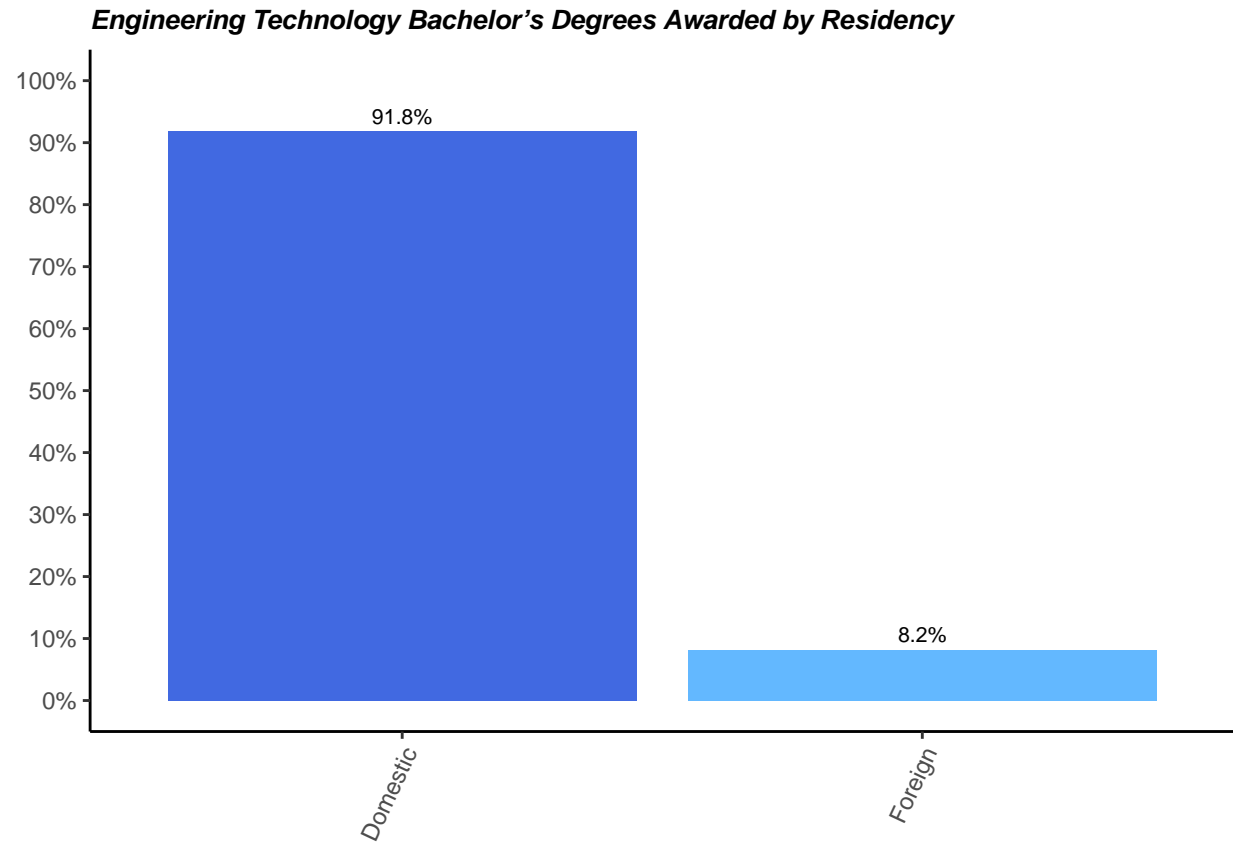
\* American Indian/Alaska Native 0.4% Native Hawaiian/Other Pacific Islander 0.2% and Multiracial 3% are combined under other  
\* Data on ethnicity does not include foreign nationals.



9.1.6 Engineering Technology Bachelor's Degrees Awarded by Residency

Table 117: Engineering Technology Bachelor's Degrees Awarded by Residency

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



9.1.7 Top 50 Institutions Awarding Highest Number of ET Degrees

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

No	Institutions	Degrees Awarded
1	University of Houston, College of Technology	1,082
2	<b>Excelsior College</b>	726
3	Arizona State University	607
4	<b>Ferris State University</b>	592
5	Texas A&M University	555
6	<b>Farmingdale State College (SUNY)</b>	479
7	Pennsylvania College of Technology	380
8	<b>Old Dominion University</b>	348
9	Indiana University-Purdue University Indianapolis	346
10	<b>Indiana State University</b>	332
11	Purdue University Northwest, Technology	313
12	<b>Pittsburg State University</b>	290

Table 118: Top 50 Institutions Awarding Highest Number of ET Degrees *(continued)*

No	Institutions	Degrees Awarded
13	Eastern Michigan University	246
<b>14</b>	<b>Rochester Institute of Technology</b>	243
15	New Jersey Institute of Technology	228
<b>16</b>	<b>University of Southern Mississippi</b>	212
17	Weber State University	204
<b>18</b>	<b>University of North Carolina at Charlotte</b>	186
19	Oklahoma State University	178
<b>20</b>	<b>Metropolitan State University of Denver</b>	176
21	University of Wisconsin, Platteville	168
<b>22</b>	<b>Kennesaw State University</b>	159
23	Texas Southern University	156
<b>24</b>	<b>Purdue University Fort Wayne</b>	146
24	Western Kentucky University	146
<b>26</b>	<b>Central Connecticut State University</b>	142
27	East Tennessee State University	136
<b>27</b>	<b>Southeast Missouri State University</b>	136
27	University of Central Missouri	136
<b>30</b>	<b>Central Washington University</b>	134
31	New England Institute of Technology	130
<b>32</b>	<b>Southeastern Louisiana University</b>	126
33	Eastern Washington University	122
<b>34</b>	<b>Fairmont State University</b>	120
35	Middle Tennessee State University	118
<b>36</b>	<b>Northern Kentucky University</b>	116
36	University of Hartford	116
<b>36</b>	<b>University of Louisiana at Lafayette</b>	116
39	Minnesota State University-Mankato	114
<b>40</b>	<b>University of Cincinnati</b>	113
41	Penn State Erie, The Behrend College	109
<b>42</b>	<b>California State University Maritime Academy</b>	108
43	Murray State University	104
<b>44</b>	<b>The Pennsylvania State University</b>	101
44	Western Carolina University	101
<b>46</b>	<b>Youngstown State University</b>	100
47	University of Maine	99
<b>48</b>	<b>Miami University</b>	97
49	Oregon Institute of Technology	91
<b>49</b>	<b>SUNY Polytechnic Institute</b>	91

\* 111 Institutions included

9.1.8 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	University of Houston, College of Technology	478
<b>2</b>	<b>Farmingdale State College (SUNY)</b>	150
3	Arizona State University	144
<b>4</b>	<b>Texas A&amp;M University</b>	134
5	Excelsior College	126
<b>6</b>	<b>New Jersey Institute of Technology</b>	95
7	Old Dominion University	78
<b>8</b>	<b>Savannah State University</b>	62
9	University of Southern Mississippi	58
<b>10</b>	<b>Virginia State University</b>	56
11	Indiana University-Purdue University Indianapolis	45
<b>12</b>	<b>Kennesaw State University</b>	44
13	Indiana State University	42
<b>13</b>	<b>University of Hartford</b>	42
15	Texas Southern University	40
<b>16</b>	<b>Rochester Institute of Technology</b>	37
17	Eastern Michigan University	36
<b>17</b>	<b>Metropolitan State University of Denver</b>	36
19	University of North Carolina at Charlotte	31
<b>20</b>	<b>Ferris State University</b>	30
21	New England Institute of Technology	28
<b>21</b>	<b>Northwestern State University of Louisiana</b>	28
23	University of North Texas	27
<b>24</b>	<b>Pittsburg State University</b>	26
25	Purdue University Northwest, Technology	24
<b>25</b>	<b>University of Central Missouri</b>	24
27	Austin Peay State University	22
<b>27</b>	<b>Central Connecticut State University</b>	22
27	Colorado State University-Pueblo	22
<b>27</b>	<b>University of Louisiana at Lafayette</b>	22
31	Oklahoma State University	21
<b>32</b>	<b>California State University Maritime Academy</b>	20
32	Daytona State College	20
<b>32</b>	<b>Fort Valley State University</b>	20



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

No	Institutions	Degrees Awarded
32	Grambling State University	20
32	<b>Vaughn College of Aeronautics and Technology</b>	20
32	Weber State University	20
38	<b>Central Washington University</b>	18
38	Pennsylvania College of Technology	18
40	<b>Elizabeth City State University</b>	16
40	Southeastern Louisiana University	16
42	<b>Grantham University</b>	14
42	Middle Tennessee State University	14
44	<b>Fairleigh Dickinson University-Metropolitan Campus</b>	12
44	Northern New Mexico College	12
44	<b>SUNY Polytechnic Institute</b>	12
44	Western Kentucky University	12
48	<b>Capitol Technology University</b>	10
48	Louisiana Tech University	10
48	<b>Missouri Western State University</b>	10

\* 111 Institutions included

9.1.9 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	Fort Valley State University	100%
2	<b>Savannah State University</b>	86.1%
3	Northern New Mexico College	75%
3	<b>Southern Illinois University Carbondale</b>	75%
5	Capitol Technology University	71.4%
6	<b>Elizabeth City State University</b>	66.7%
7	Virginia State University	62.2%
8	<b>Grambling State University</b>	52.6%
9	University of Houston, College of Technology	44.2%
10	<b>New Jersey Institute of Technology</b>	41.7%
11	University of Hartford	36.2%
12	<b>Northwestern State University of Louisiana</b>	35.9%
13	The University of Memphis	35.7%
14	<b>Vaughn College of Aeronautics and Technology</b>	33.3%
15	Farmingdale State College (SUNY)	31.3%
16	<b>University of North Texas</b>	30.7%
17	Daytona State College	30.3%
18	<b>Austin Peay State University</b>	28.9%
19	University of West Alabama	27.8%
20	<b>Kennesaw State University</b>	27.7%
21	Colorado State University-Pueblo	27.5%
22	<b>University of Southern Mississippi</b>	27.4%
23	Texas Southern University	25.6%
24	<b>Idaho State University</b>	25%
25	Texas A&M University	24.1%
26	<b>Fairleigh Dickinson University-Metropolitan Campus</b>	24%
27	Arizona State University	23.7%
28	<b>Old Dominion University</b>	22.4%
29	New England Institute of Technology	21.5%
30	<b>Temple University</b>	20.9%
31	Metropolitan State University of Denver	20.5%
32	<b>Oklahoma State University Institute of Technology</b>	20%
33	University of Louisiana at Lafayette	19%
34	<b>California State University Maritime Academy</b>	18.5%
35	University of Central Missouri	17.6%
36	<b>Grantham University</b>	17.5%
37	Excelsior College	17.4%
38	<b>Louisiana Tech University</b>	16.9%
39	University of North Carolina at Charlotte	16.7%
40	<b>Central Connecticut State University</b>	15.5%
41	Rochester Institute of Technology	15.2%
42	<b>Missouri Western State University</b>	15.2%
42	Northern Michigan University	15.2%
44	<b>University of Massachusetts Lowell</b>	14.8%
45	Eastern Michigan University	14.6%
46	<b>Western Michigan University</b>	14%
47	Central Washington University	13.4%
48	<b>SUNY Polytechnic Institute</b>	13.2%
49	Indiana University-Purdue University Indianapolis	13%
50	<b>Southeastern Louisiana University</b>	12.7%

\* 111 Institutions included

9.1.10 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	University of Houston, College of Technology	384
2	Arizona State University	172
3	Farmingdale State College (SUNY)	120
4	Texas A&M University	115
5	Indiana University-Purdue University Indianapolis	88
6	Eastern Michigan University	74
7	Ferris State University	54
8	Purdue University Northwest, Technology	53
9	Excelsior College	46
10	Rochester Institute of Technology	38
11	Old Dominion University	36
12	University of Southern Mississippi	28
13	Southeast Missouri State University	26
13	University of Hartford	26
15	Indiana State University	24
16	New Jersey Institute of Technology	23
17	Kennesaw State University	20
17	Middle Tennessee State University	20
19	New England Institute of Technology	18
19	Pittsburg State University	18
19	Virginia State University	18
22	Murray State University	16
22	Southeastern Louisiana University	16
22	Texas Southern University	16
22	Youngstown State University	16
26	California State University Maritime Academy	14
26	Daytona State College	14
26	Fairmont State University	14
26	Northwestern State University of Louisiana	14
26	Oklahoma State University	14
26	Pennsylvania College of Technology	14
26	Purdue University Fort Wayne	14
33	East Tennessee State University	12
33	Metropolitan State University of Denver	12
33	Miami University	12
33	University of North Carolina at Charlotte	12
37	University of Cincinnati	11
38	Central Washington University	10
38	University of Central Missouri	10
38	University of West Alabama	10
41	University of Louisiana at Lafayette	9
41	Western Michigan University	9
43	Central Connecticut State University	8
43	Eastern Washington University	8
43	Missouri Western State University	8
43	Southern Utah University	8
43	University of Dayton	8
43	University of North Texas	8
43	University of Pittsburgh-Johnstown	8
43	University of Wisconsin-Oshkosh	8

\* 111 Institutions included

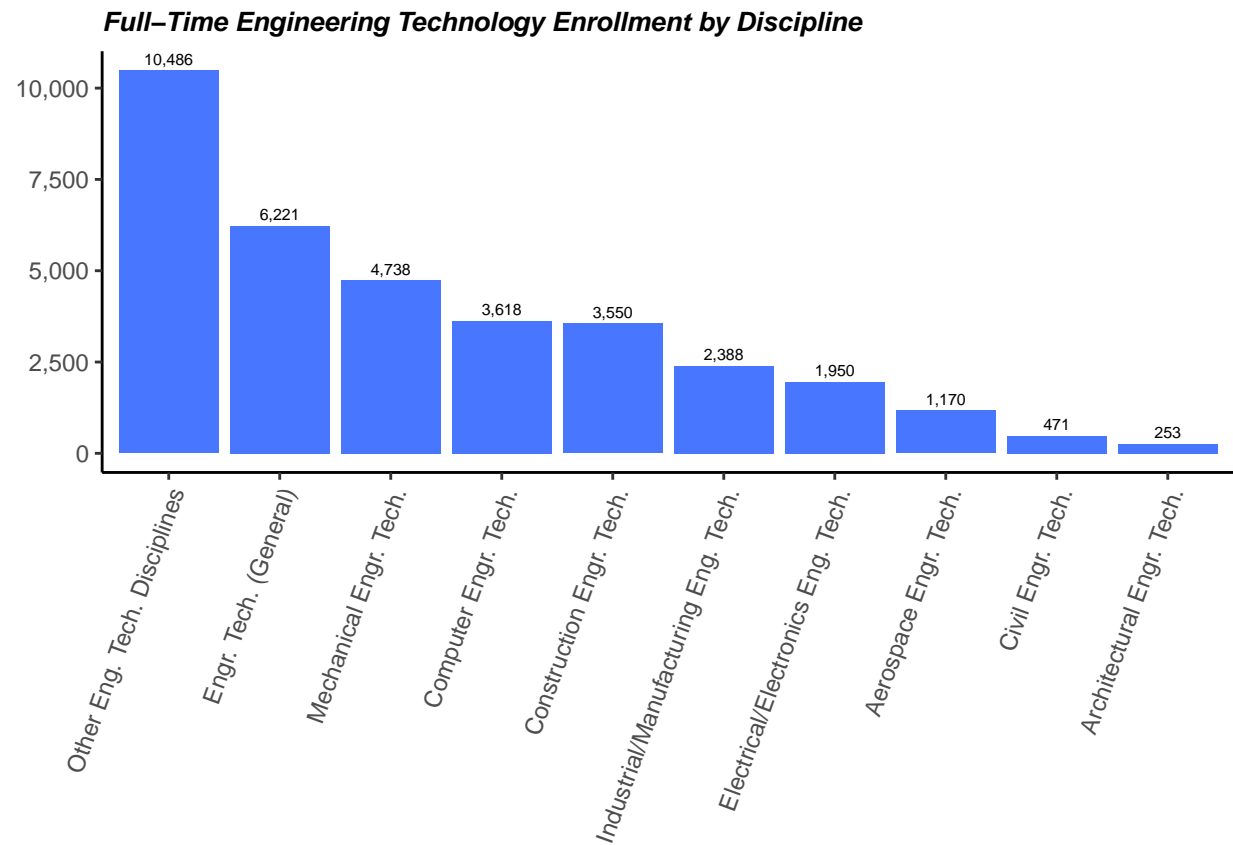
9.2 ENGINEERING TECHNOLOGY ENROLLMENT, FALL 2019

9.2.1 Full-Time Engineering Technology Enrollment by Discipline

Table 122: Full-Time Engineering Technology Enrollment by Discipline: 34,845

Discipline Name	Degrees Awarded
Other Eng. Tech. Disciplines	10,486
Engr. Tech. (General)	6,221
Mechanical Engr. Tech.	4,738
Computer Engr. Tech.	3,618
Construction Engr. Tech.	3,550
Industrial/Manufacturing Eng. Tech.	2,388
Electrical/Electronics Eng. Tech.	1,950
Aerospace Engr. Tech.	1,170
Civil Engr. Tech.	471
Architectural Engr. Tech.	253

\* Enrollment is for full-time bachelor's degree candidates in Engineering Technology



9.2.2 Top 50 Institutions by Engineering Technology Enrollment

Table 123: Top 50 Institutions by Engineering Technology Enrollment

No	Institutions	Enrollments
1	University of Houston, College of Technology	6,030
2	Arizona State University	4,759
3	Purdue University Polytechnic Institute	4,754
4	Farmingdale State College (SUNY)	2,433
5	Texas A&M University	2,058
6	Ferris State University	2,039
7	Eastern Michigan University	1,851
8	East Carolina University	1,825
9	The University of Toledo	1,400
10	Indiana University-Purdue University Indianapolis	1,308
11	Purdue University Northwest, Technology	888
12	New Jersey Institute of Technology	839
13	University of North Carolina at Charlotte	772
14	Kennesaw State University	761
15	Old Dominion University	750
16	University of Cincinnati	687
17	Oklahoma State University	649
18	University of Maine	556
19	Western Carolina University	522
20	University of Wisconsin, Platteville	515
21	Indiana University-Purdue University Fort Wayne	508
22	Miami University	454
23	University of North Texas	446
24	The Pennsylvania State University	430
25	Oregon Institute of Technology	409
26	Montana State University	404
27	University of Wisconsin - Stout	403
28	University of Louisiana at Lafayette	337
29	Buffalo State	336
30	Northern Illinois University	315
31	Minnesota State University-Mankato	295
32	SUNY Polytechnic Institute	289
33	Ohio University	275
34	University of Dayton	273
35	Wayne State University	265
36	The University of Memphis	263
37	South Dakota State University	254
38	Penn State Erie, The Behrend College	252
39	Louisiana Tech University	249
40	Western Michigan University	244
41	Abilene Christian University	234
42	Tennessee Technological University	228
43	Temple University	224
44	Central Michigan University	211
45	California State University Maritime Academy	207
46	Michigan Technological University	201

Table 123: Top 50 Institutions by Engineering Technology Enrollment *(continued)*

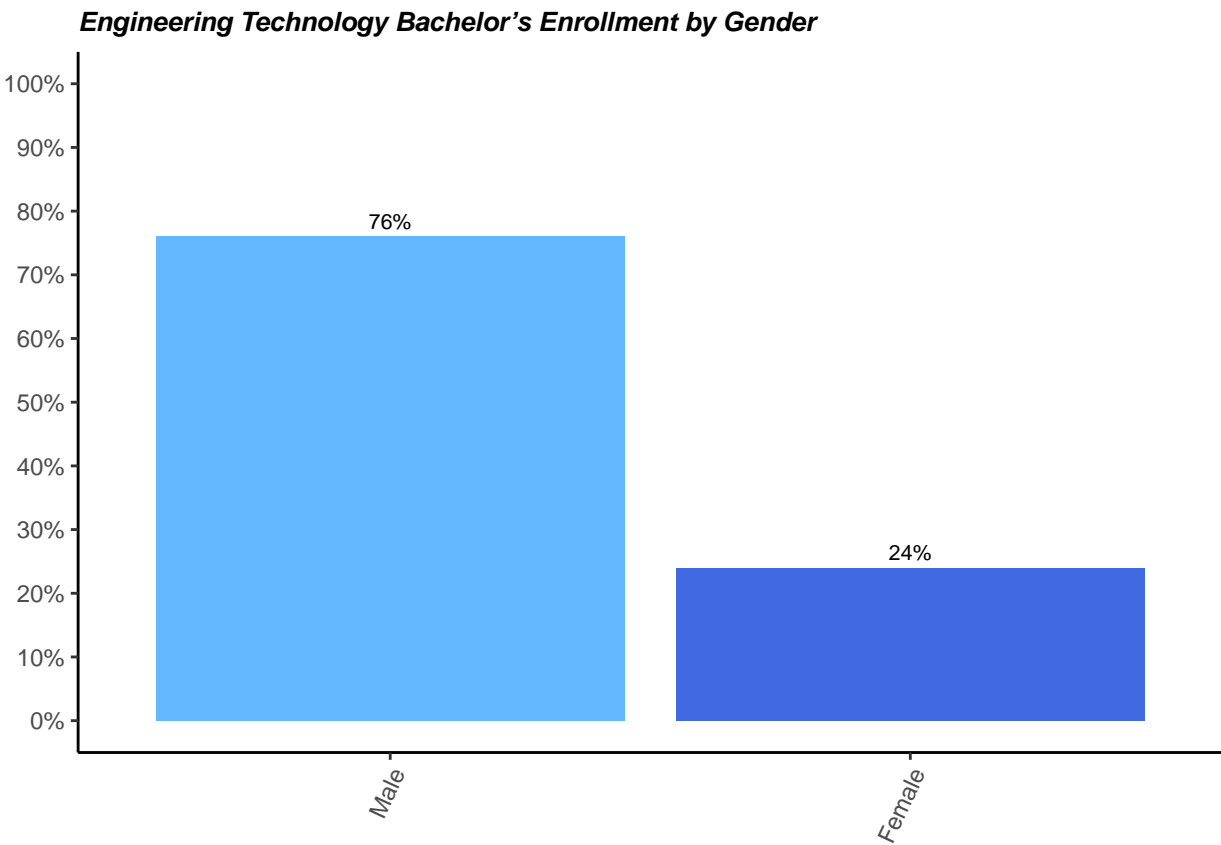
No	Institutions	Enrollments
47	University of Hartford	199
48	University of Arkansas at Little Rock	165
49	Trine University	164
50	University of Massachusetts Lowell	134

\* 111 Institutions reported.  
\* Enrollment is for full-time and part-time bachelor’s degree candidates in engineering technology.

9.2.3 Engineering Technology Enrollment by Gender

Table 124: Engineering Technology Enrollment by Gender

Gender	Percentage
Female	24%
Male	76%

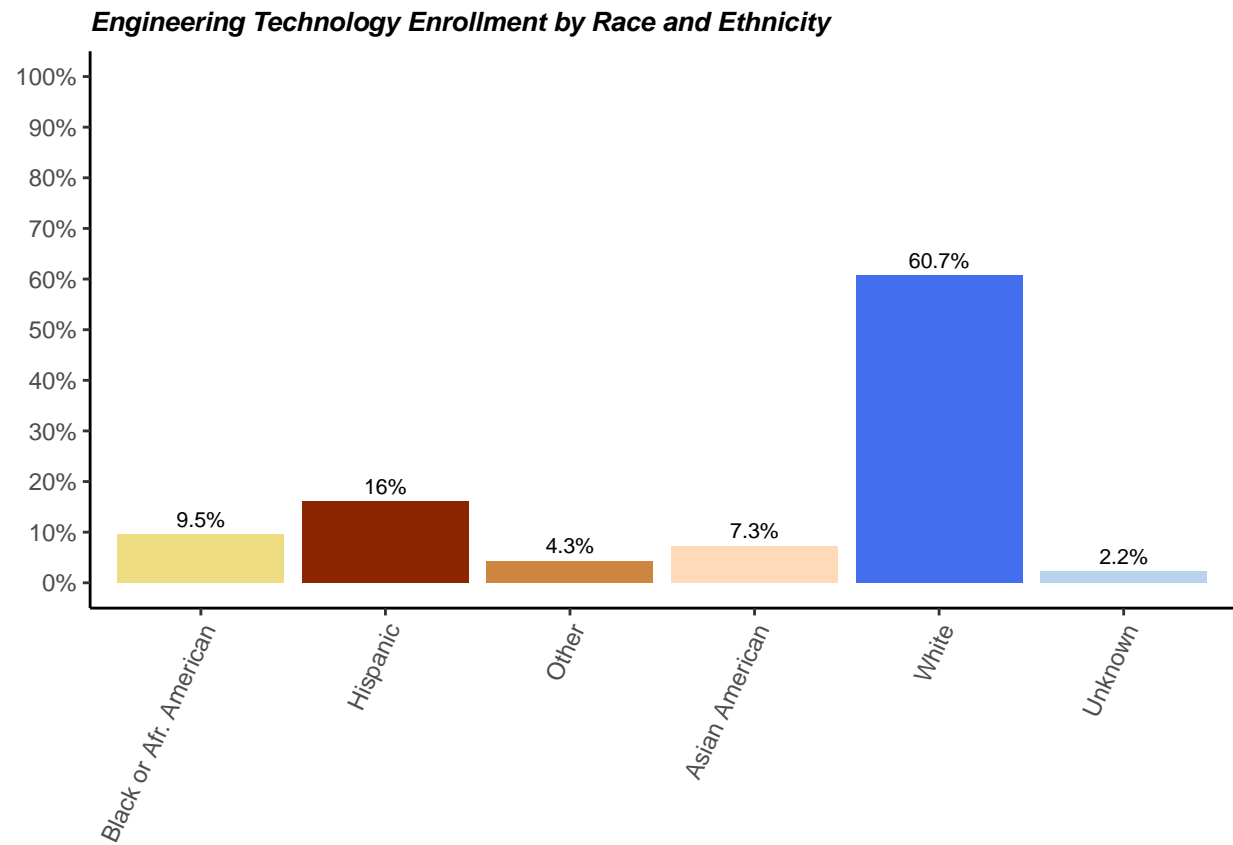


9.2.4 Engineering Technology Enrollment by Race and Ethnicity

Table 125: Engineering Technology Enrollment by Race and Ethnicity\*

Ethnicity	Percentage
Black or Afr. American	9.5%
Hispanic	16%
Other	4.3%
Asian American	7.3%
White	60.7%
Unknown	2.2%

\* American Indian/Alaska Native 0.5% Native Hawaiian/Other Pacific Islander 0.2%  
\* and Multiracial 3.5% are combined under other  
\* \*Data on ethnicity does not include foreign nationals.

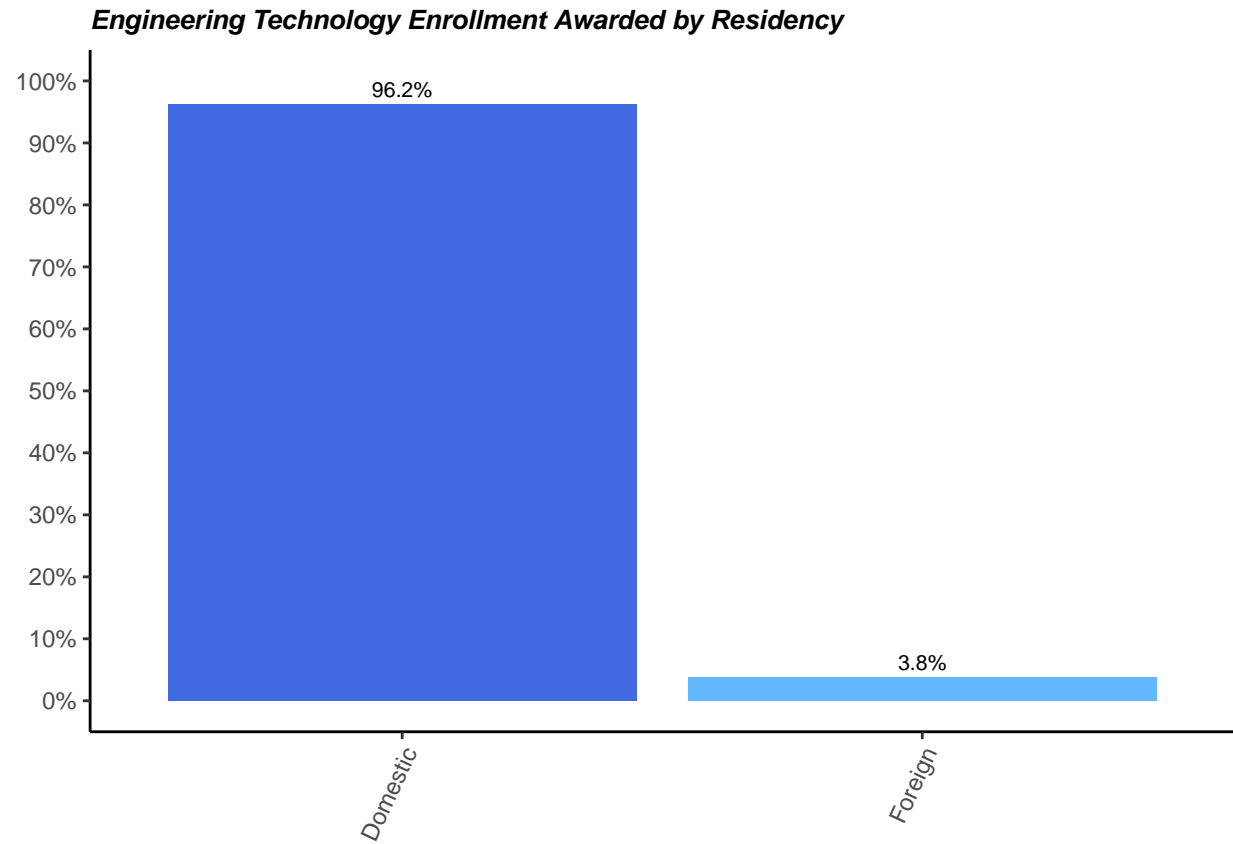


9.2.5 Engineering Technology Enrollment by Residency

Table 126: Doctoral Enrollment 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  
\* 63 Institutions reported.



# 10 SURVEY DEFINITIONS

Joseph R. Roy, Ph.D.

Below are the definitions used for the Profiles Survey. The definitions are the same for both the Engineering and Engineering Technology portions of the survey.

## 10.1 Race/Ethnicity

The definitions of race/ethnicity align with the US Department of Education’s data collections in order to ensure that institutions have and can report the data requested. We do not survey individual students or faculty, but institutions and only receive total (unduplicated) headcounts for each program or department we collect data for.

**American Indian or Alaska Native:** A person having origins in any of the original peoples of North and South America (including Central America), and who maintains tribal affiliation or community attachment.

**Asian:** A person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam.

**Black or African American:** A person having origins in any of the black racial groups of Africa. Terms such as “Haitian” or “Negro” can be used in addition to “Black or African American.”

**Hispanic or Latino:** A person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin, regardless of race. The term, “Spanish origin,” can be used in addition to “Hispanic or Latino.”

**Native Hawaiian or Other Pacific Islander:** A person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.

**White:** A person having origins in any of the original peoples of Europe, the Middle East, or North Africa.

**Nonresident alien:** A person who is not a citizen or a national of the United States and who is in this country on a visa or temporary basis and does not have the right to remain indefinitely.

**Two or more:** Persons who reported themselves as belonging to more than one of the race categories. These individuals should only be counted in this field and not any of the race categories.

**Unknown:** Those individuals who do not select any of the above options.

Hispanic/Latino includes individuals of any race who identify as Hispanic or Latino. The five race categories include only persons who reported one of those fields as their sole race and did not report Hispanic/Latino ethnicity.

Nonresident aliens are not included in any of the race or ethnicity fields.

Canadian institutions and other non-US institutions report students under two categories: Unknown and Nonresident Alien.

## 10.2 Gender

Institutions were given an option how to report their data for graduation, enrollment and faculty counts.

Gender Category Options:

-Male/Female -Male/Female/Non-binary Gender/Another Gender or Unknown

Institutions that choose the binary gender option spreadsheet, are reporting data to ASEE as it would be reported to the U.S. Department of Education’s Integrated Post-Secondary Education System (IPEDS) survey. Gender for individuals (student or faculty) which is unknown or another gender besides male or female would be reported in one of the two categories (male or female) selected by the institution, as noted in the IPEDS FAQ’s. Under this option, institutions included counts for all individuals.

For the second option, institutions were asked to report with four gender categories: -Male -Female -Non-binary Gender -Another Gender or Unknown

This change has been made in response to a request from institutions to reflect their changing student and faculty composition. Please see the technical review panel discussion from 2016 for more information about the collection of gender information at a national level.

### 10.2.1 Reporting Period

The reporting period for the 2019 data collection are listed below.

- For degrees awarded we include all completions between July 1, 2018 to June 30, 2019.
- For enrollment, institutions were instructed to report their data for the Fall 2019 session.
- For full time and part time faculty data, institutions were instructed to report for the Fall 2019 session.
- For research expenditures, institutions were asked to report their data for fiscal year 2019.

## 10.3 Other Definitions

- 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.

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