The University of Toledo

College of Engineering

2020 - 2023

Strategic Plan for Diversity and Inclusion

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I. Statement from the College Inclusion Officer of the College of Engineering

College of Engineering Mission Statement
In our unique role as the comprehensive engineering school in Northwest Ohio, the University of Toledo's College of Engineering provides outstanding undergraduate and graduate programs to educate the leaders of tomorrow. We are committed to leadership in the creation and transfer of new knowledge and technologies through the efforts of a diverse faculty, staff and student body.

We support the mission of The University of Toledo, as a student-centered public metropolitan research university, recognizing the diversity in our metropolitan area and striving to be responsive to and representative of that community.

The College of Engineering strives to achieve prominence as a student focused college that educates the future engineers and leaders of tomorrow. In an effort to recognize the richness inherent in our national diversity, the College encourages participation by all in an atmosphere in which differences are valued as an integral part of the learning experience. The College of Engineering is working diligently to increase the recruitment and retention of students, staff, and faculty from underrepresented groups. We recognize that retention of increasingly diverse student, staff, and faculty populations will require significant innovation in the infrastructure and programs of the college and we accept the challenge to respond to this need.

This document will outline and describe our progress in creating a college atmosphere that recognizes, celebrates and promotes diversity that will include an increasingly multicultural environment, mirroring the changes in our business and society.

Furthermore, we will introduce an ongoing plan for addressing issues and problems that must be solved if we are to achieve a truly diverse community in the College of Engineering. Our plan, which focuses on meeting and exceeding the diversity efforts of the University's will include four major goals for increasing diversity within the College and identifies the strategies and actions necessary to accomplish these goals.

College Mission Statement (Relating to Diversity)

College of Engineering Diversity Mission Statement
We, The College of Engineering, are committed to diversity. We strive to prepare all students regardless of their race, class, color, religion, national origin, gender identity/expression, ideology, sexual orientation, and presence of any disability for a career in the Engineering Sciences and Technologies. We further encourage an atmosphere among faculty and staff that values cultural differences and recognizes the contributions of a body of people as an integral piece of the learning process and work environment.

COE Vision Statement
Our vision is to achieve national prominence by providing a diverse, student-centered, stimulating learning environment that actively engages undergraduate and graduate students in engineering education and research while benefiting society through the creation of new knowledge and technologies. We are committed to being a source of outstanding engineering graduates, knowledge and expertise as we strive to serve our region, the State of Ohio, and beyond.

II. College Diversity Committee

Chairperson and College Inclusion Officer

Lesley Berhan, Ph.D.
Associate Dean for Diversity, Inclusion, and Community Engagement
Associate Professor, Mechanical, Industrial, and Manufacturing Engineering

Committee Members

Thehazhnan Ponnaiyan, Ph.D.	Lecturer	Chemical Engineering
Azadeh Parvin, Ph.D.	Professor	Civil and Environmental Engineering
Devinder Kaur, Ph.D.	Professor	Electrical Engineering and Computer Science
Weiqing Sun, Ph.D.	Associate Professor	Engineering Technology
Aisling Coughlan, Ph.D.	Assistant Professor	Bioengineering
Sorin Cioc, Ph.D.	Clinical Associate Professor	Mechanical, Industrial, and Manufacturing Engineering
Bryan Bosch	Manager of Diversity, Inclusion, and Community Engagement	

III. The University of Toledo Mission Statement

The mission of The University of Toledo is to improve the human condition; to advance knowledge through excellence in learning, discovery and engagement; and to serve as a diverse, student-centered public metropolitan research university.

Our Core Values:

We recognize that each student has a unique background and individual needs and aspirations. By taking a holistic advising approach:

- We strive for consistent, honest, and respectful interactions with our students, cultivating positive and supportive relationships.
- We understand and educate our students about academic policies and departmental/major information to provide accurate and efficient services on their path toward graduation.
- We encourage and empower our students to be their own strongest advocate by providing the necessary tools and information to make important independent decisions here at UT and beyond.
- We value each students' chosen field of study and motivate enthusiasm and investment in their educational career.

IV. WHAT WE MEAN BY INCLUSION AND DIVERSITY

Inclusion

An inclusive environment provides opportunity for full participation in the life of the university by each of its members. The inclusive university embraces differences and fosters a sense of belonging among all its members, including faculty, staff, students, and the community.

Diversity

Diversity is a core value of The University of Toledo. As a scholarly community that encourages diversity of thought as reflected in our broad array of disciplines, we embrace the many things in life that makes us different. The university is open to people of all racial, ethnic, cultural, socioeconomic, national and international backgrounds. We welcome diversity of pedagogy, religion, age, diverse abilities, sexual orientation, gender identity/expression, and political affiliation. Diversity is essential to our ability to survive and thrive. Every individual is a necessary asset, and we demonstrate this in our policies, practices, and everyday operating procedures.

V. METHODOLOGY AND DATA FINDINGS

Data for this Strategic Plan for Diversity and Inclusion Diversity Plan is comprised of University Institutional Data.

FACULTY AND STAFF COLLEGE OF ENGINEERING DATA

Table 1 shows the gender and ethnic composition of the faculty in the College of Engineering. This data includes tenure and tenure-track faculty as well as lecturers and part-time and adjunct faculty. In Fall 2020, 17.9% of the faculty in the college were female. Four of the 112 faculty are underrepresented minorities. Table 2 shows the staff of the College of Engineering by gender and ethnicity.

Table 1. College of Engineering Faculty Ethnicity and Gender (Fall 2020)

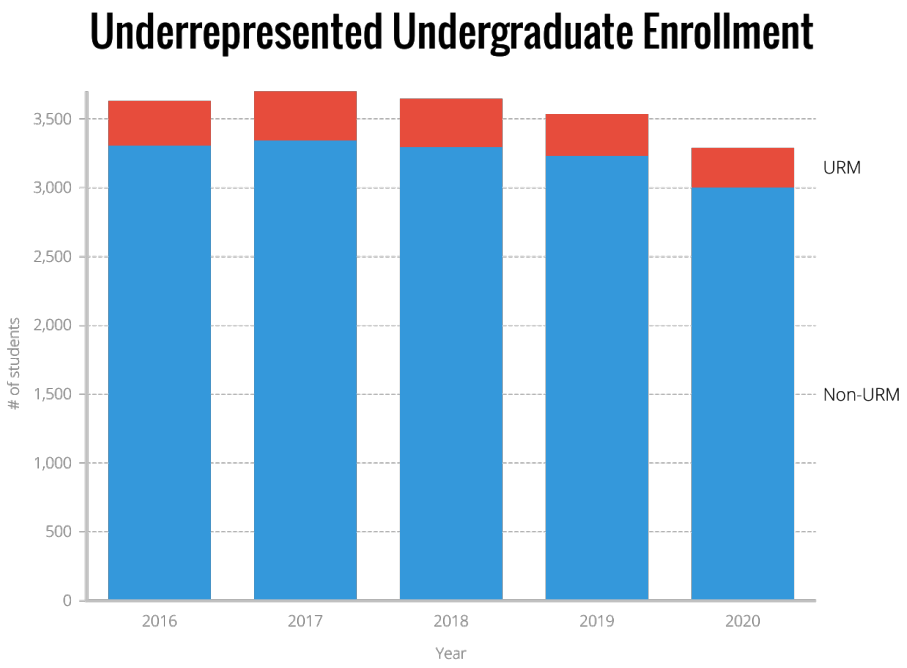
RANK		Assistant Professor	Associate Lecturer	Associate Professor	Lecturer	No Rank	Professor	Senior Lecturer	Sub-total
Female	Asian	1	0	0	1	0	1	0	3
	Black/African American	1	0	1	0	0	0	0	2
	Hispanic/Latino	0	0	0	0	0	1	0	1
	Nonresident alien	3	0	0	1	0	0	0	4
	White	1	1	2	0	2	3	1	10
	Sub-total by Female	6	1	3	2	2	5	1	20
Male	Asian	4	0	2	0	4	11	0	21
	Hispanic/Latino	0	0	1	0	0	0	0	1
	Nonresident alien	2	1	2	0	1	3	0	9
	Two or more races	0	0	0	0	1	0	0	1
	White	7	0	6	2	27	17	1	60
	Sub-total by Male	13	1	11	2	33	31	1	92
Total by COLUMNS		19	2	14	4	35	36	2	112

Table 2. College of Engineering Staff by Ethnicity and Gender (Fall 2020)

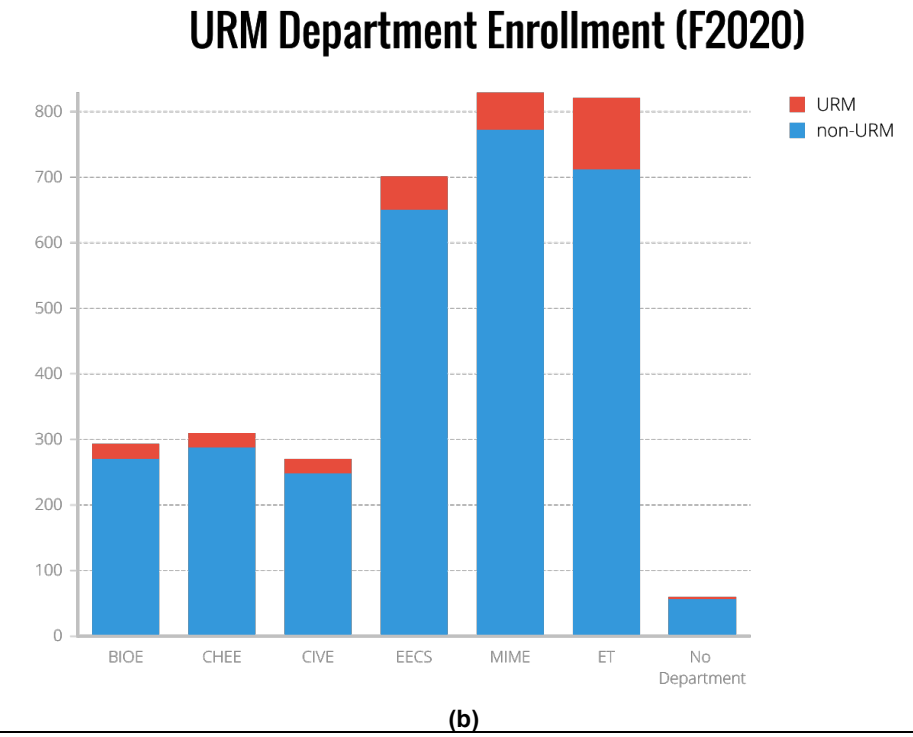
GENDER		Female	Male	Sub-total
Full-time	American Indian or Alaska Native	1	0	1
	Asian	1	2	3
	Black or African American	1	0	1
	Hispanic/Latino	1	0	1
	Nonresident alien	0	2	2
	White	16	16	32
	Sub-total by Full-time	20	20	40
Part-time	Asian	0	1	1
	Black or African American	1	0	1
	Race and ethnicity unknown	0	1	1
	White	9	2	11
	Sub-total by Part-time	10	4	14
Total by COLUMNS		30	24	54

STUDENT COLLEGE DATA

Undergraduate Students



(a)



(b)

Figure 1. (a) 2016 – 2020 College of Engineering undergraduate Enrolment by URM status and (b) Fall 2020 department enrolment by URM status.

The undergraduate enrollment in the college of engineering has seen a slight decrease from an all-time high in 2017 as shown in Figure 1. Figure 1(a) shows that the total underrepresented minority (URM) (i.e. African American, Hispanic/Latino, American Indian, Native Hawaiian/Pacific Islander) enrollment in the college over the past five years has remained largely steady. Engineering Technology has the highest representation of URM students in the college as shown in Figure 1(b).

Figure 2 shows the ethnicity trend in the undergraduate population for the period 2016 - 2020. In the Fall of 2020, the African American/Black undergraduate student population was 3.1% - an increase from Fall 2019 (2.8%), but still below the 5 year average of 3.3%. The Hispanic/Latino undergraduate population has been relatively steady from its high of 3.9% in Fall 2016, however, the Fall 2020 class has seen a slight decline from that number to 3.5%. At 2.9% in 2020 the Asian undergraduate population has continued to show a generally positive trend with the College of Engineering, albeit down slightly from an all-time high 3.0% in Fall 2019. National trends are following what we see in Fall 2020, based largely on the economic impact of the Covid-19 Pandemic hitting populations of color harder, thus causing many likely university enrollees to eschew enrollment until family economic situations stabilize.

Broken down by program, in Fall 2020 African American students made up just 2.0% of all domestic undergraduate enrollees in Engineering Science (i.e. bioengineering, civil and environmental engineering, chemical engineering, electrical engineering and computer science, or mechanical, industrial and manufacturing engineering) as shown in Figure 3. That is up slightly from our 2016 number of 1.8%, however, it still lags behind the national average of 5.0%. The enrollment within our engineering technology

department is currently 7.58% African American, an increase of 1.47% from 2016. The percentage of Hispanic/Latino students in engineering science versus engineering technology were 3.68% and 4.60% respectively.

The distribution of undergraduate students by department is shown in Figure 4. The distribution of Hispanic students in the college is well aligned with the overall undergraduate distribution, with roughly one fourth of the students enrolled in engineering technology. The majority of the African American students in the college are enrolled in Engineering Technology.

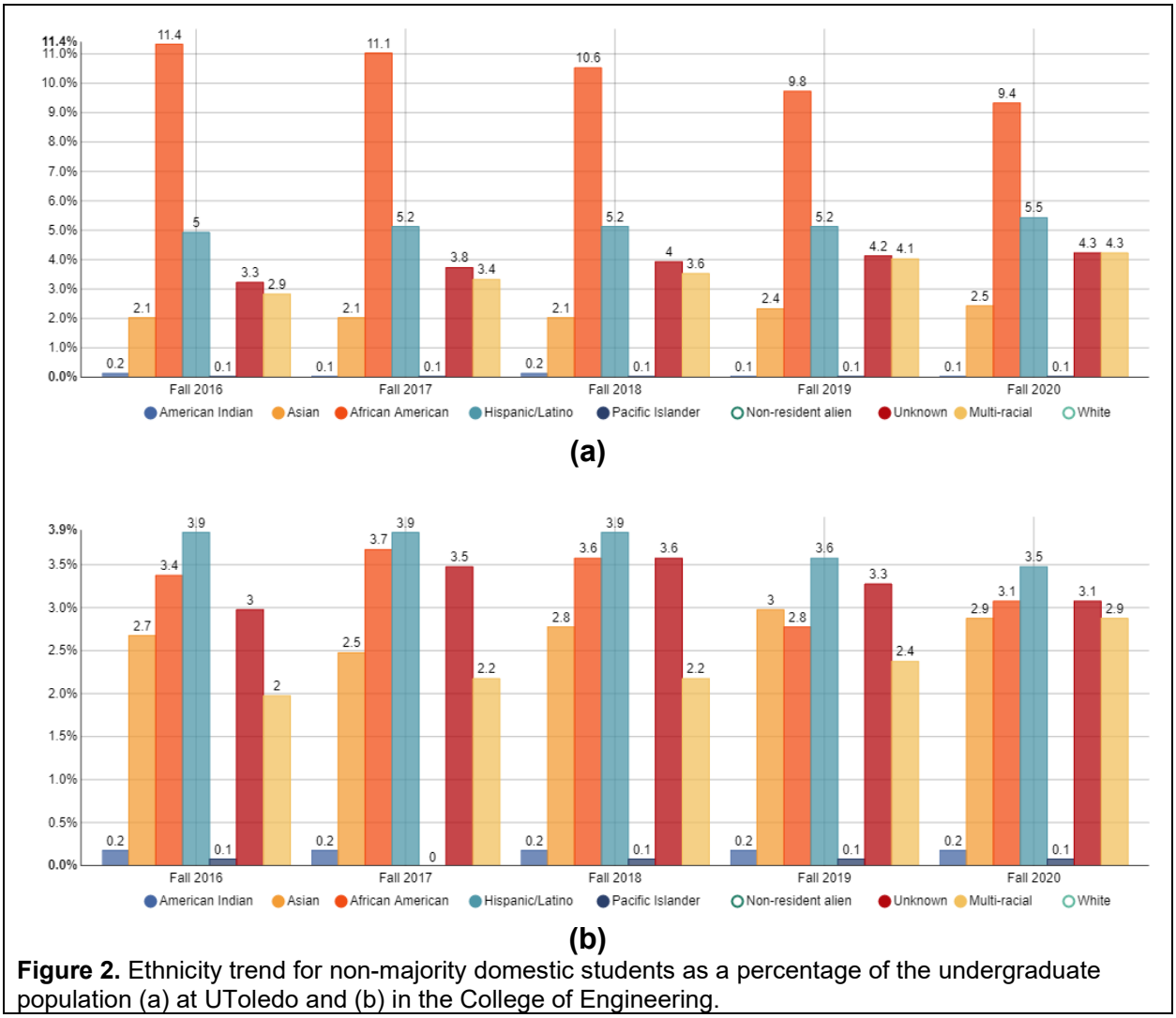


Figure 2. Ethnicity trend for non-majority domestic students as a percentage of the undergraduate population (a) at UToledo and (b) in the College of Engineering.

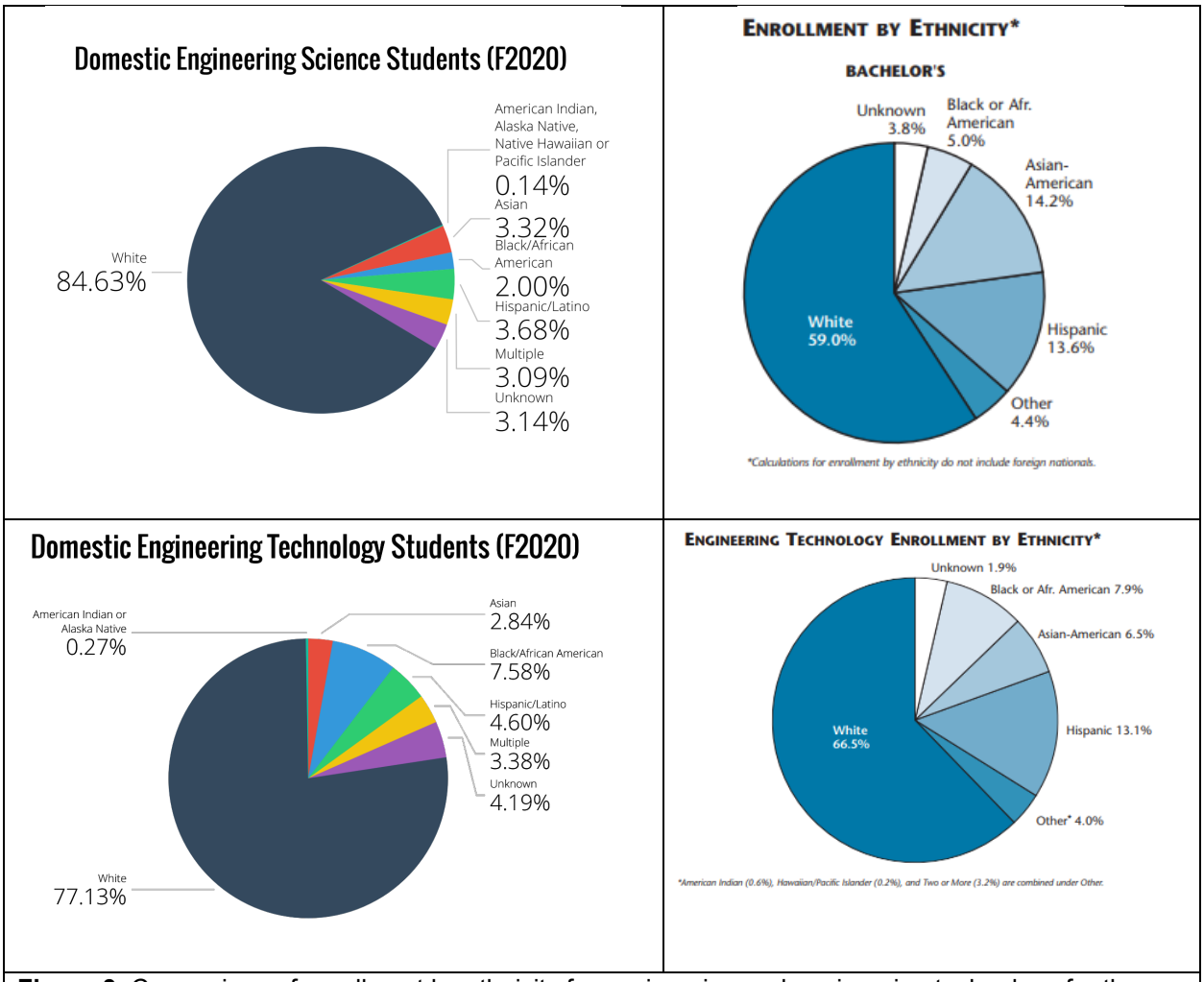


Figure 3. Comparison of enrollment by ethnicity for engineering and engineering technology for the COE and the US. (National data figures taken from ASEE Engineering and Engineering Technology by the Numbers.

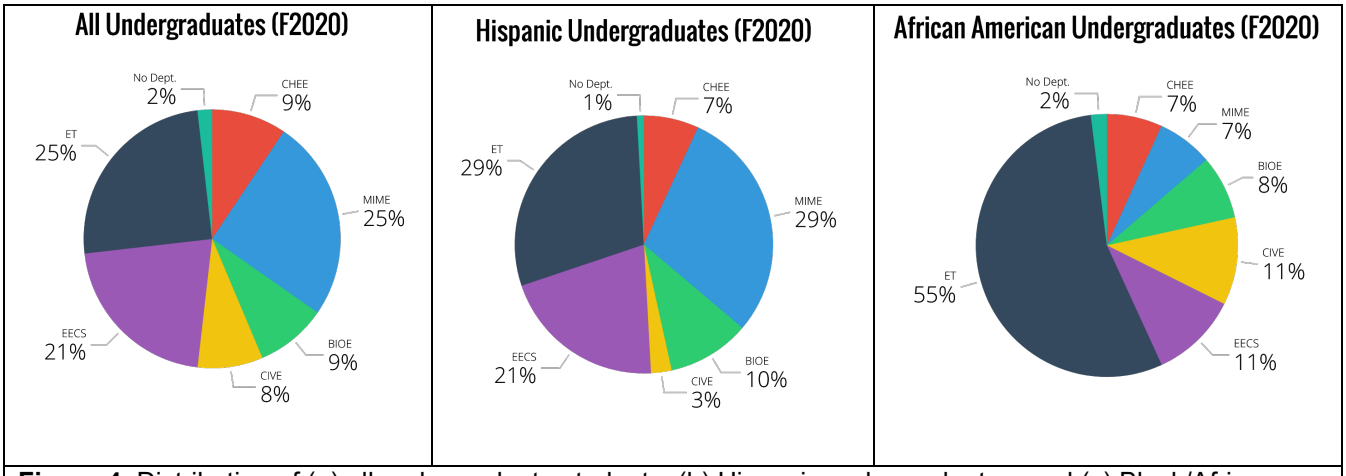


Figure 4. Distribution of (a) all undergraduate students, (b) Hispanic undergraduates, and (c) Black/African American undergraduates in the six departments in the College of Engineering.

Figure 5 shows the gender trend in the undergraduate students in the College of Engineering for the period 2016-2020. The percentage of female undergraduates in the college has increased from 15.6% in Fall 2016 to 18.0% in Fall 2020, which also marks a 7% increase in the last decade.

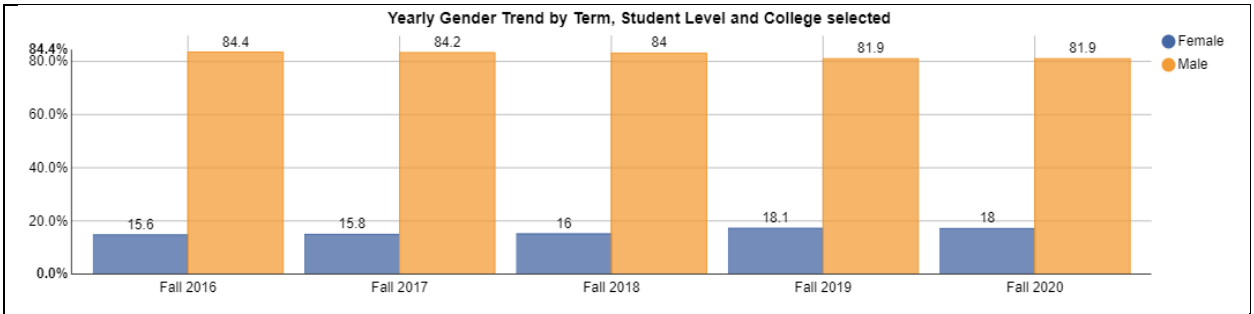


Figure 5. Gender trend for the Undergraduates in the College of Engineering.

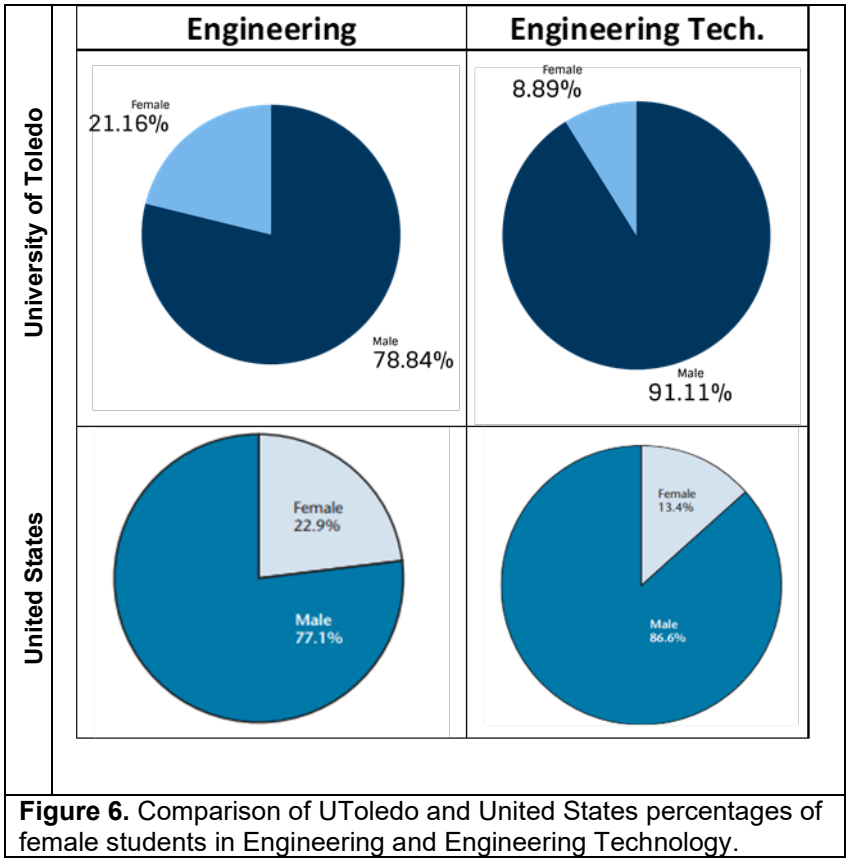


Figure 6. Comparison of UToledo and United States percentages of female students in Engineering and Engineering Technology.

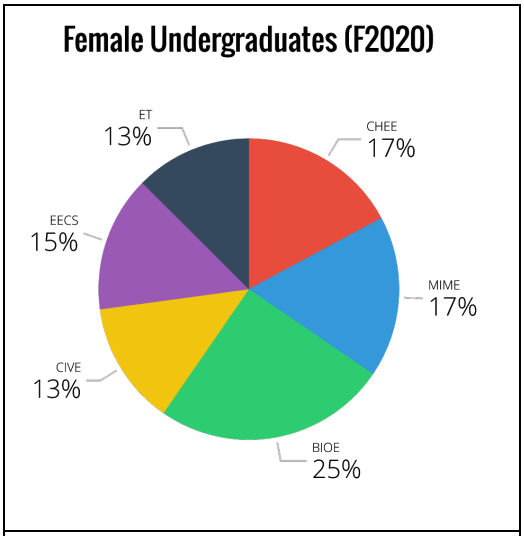


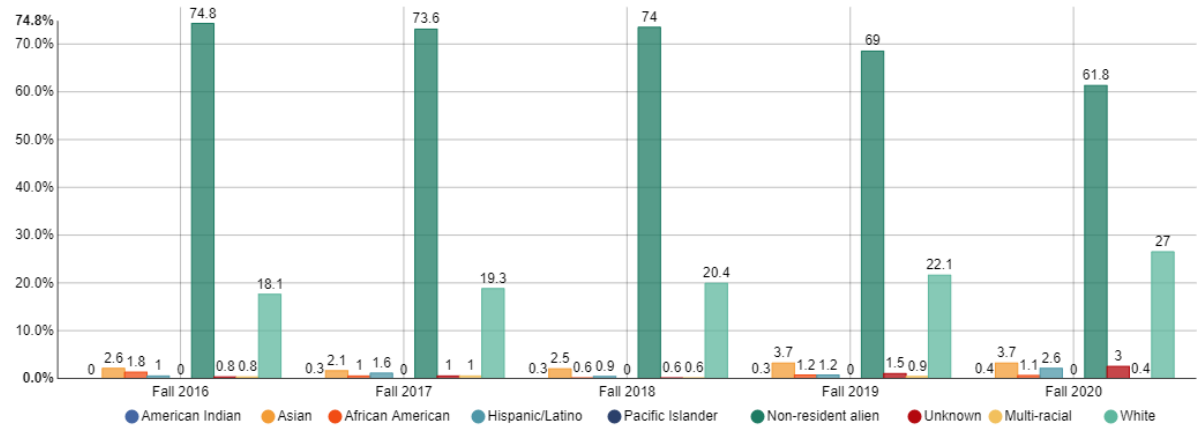
Figure 6. Distribution of undergraduate female students in the COE

The percentage of female students in engineering science and engineering technology in Fall 2020 was 21.2% and 8.9% respectively. Figure 5 show how these numbers compare to national trends. Figure 6 shows the distribution of female students within the college. One quarter of all the female students are in bioengineering, which is the second smallest department.

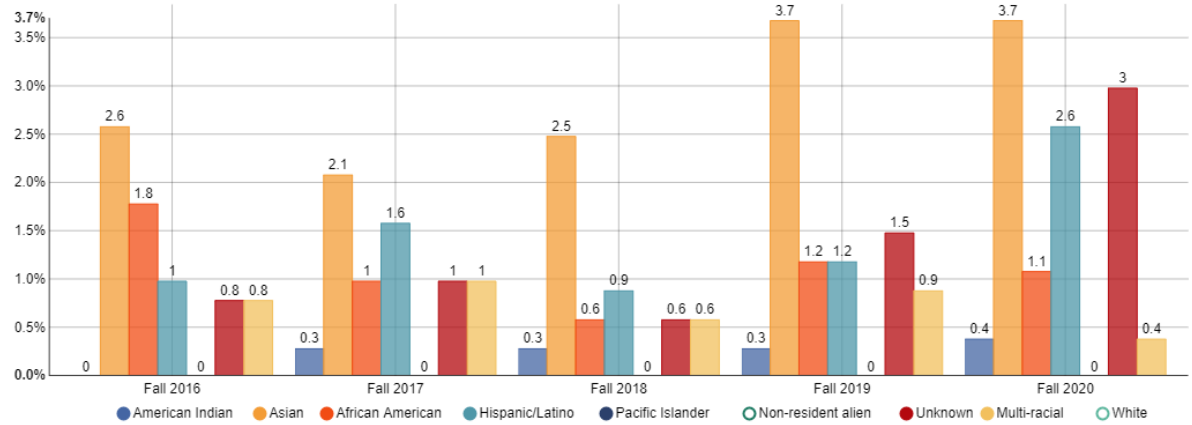
Graduate Students

Figure 7 shows the ethnicity trend for graduate students in the College of Engineering from 2016 -2020. The majority of the graduate student population is international (i.e. non-resident alien) as shown in Figure 7(a), and roughly 62% of the graduate students in the college in Fall 2020 were international. Figure 7(b) focuses on the domestic diversity among the graduate students of the college. In Fall 2020 the graduate student population was 3.7% Asian, 1.1% African American, and 2.6% Hispanic.

Figure 8 shows the gender trend for graduate students in the college of engineering from 2016 – 2020. In Fall 2020 the percentage of female graduate students was 20.6% - a slight decrease from the 21.8% 5-year high in 2019, however, slightly above the 5-year average of 20.5%.



(a)



(b)

Figure 7. Ethnicity trend for (a) all graduate students in the College of Engineering and (b) highlighting domestic non-majority students in the College of Engineering.

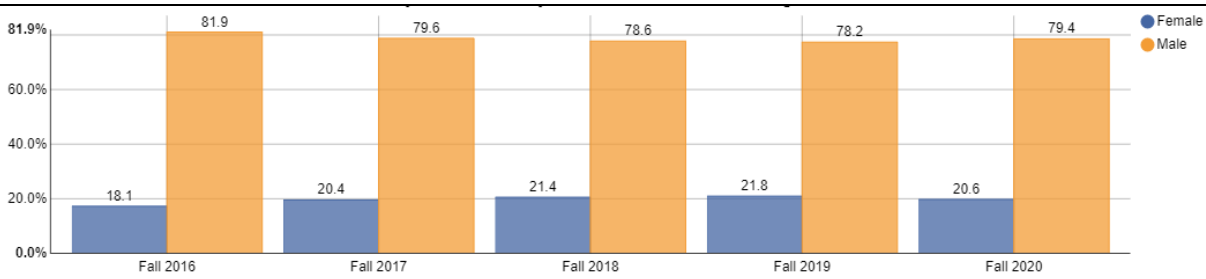


Figure 8. Gender trend for the graduate students in the College of Engineering.

College of Engineering Student Achievement Data

Figure 9 shows the retention rates by ethnicity measured by fall to fall return rates for full time first year degree seeking students. Current Fall denotes the percentage of first year students in Fall 2019 who returned in Fall 2020. The 'Prior Fall' represents the percentage of first year students in Fall 2018 who returned in Fall 2019. The current overall retention rate for the college is 84.18% which is slightly down from the prior year. The current retention rates for Asian/Pacific Islander are above the overall current college retention rate. The current retention rate for African American students is 75%, which is a decrease from 81.25% the prior Fall. As stated previously, across the nation, retention rates within under-represented populations have declined at a higher rate than majority students due to the significant economic hardship tied to those populations with the current Covid-19 Pandemic ongoing. Also, it is the belief of many retention experts that the move to remote learning affect populations of color and low-income populations far more significantly than others due to the higher rate of inconsistent internet and technology access within those populations. Retention rates within certain subsets of students enrolled in the College are also far more variable, as the typical sample sizes are much smaller than our majority population and can be affected far more significantly by a minor nominal change in student outcomes. Table *** provides retention rates by ethnicity for the College of Engineering over the past five years. It also gives the number of students in each group in each cohort.

Figure 10 shows the retention rates for the college by gender. The current retention rate for female students is 83.33% which is slightly lower than the current overall college

retention rate and less than the 90.18% rate reported for female students for the prior fall.

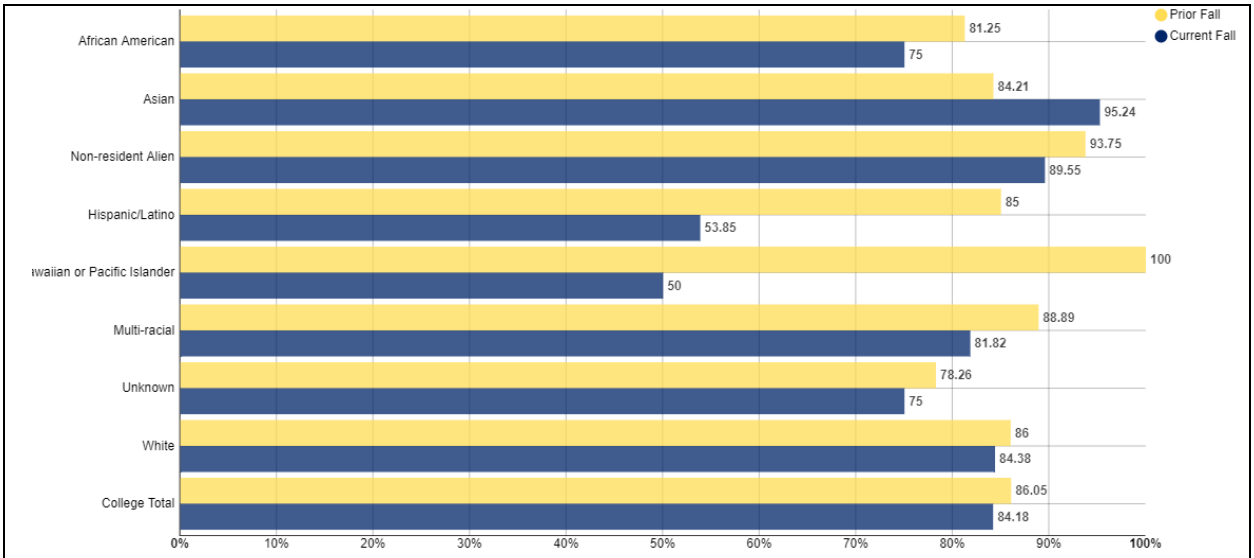


Figure 9. Retention rates by ethnicity for undergraduates in the College of Engineering.

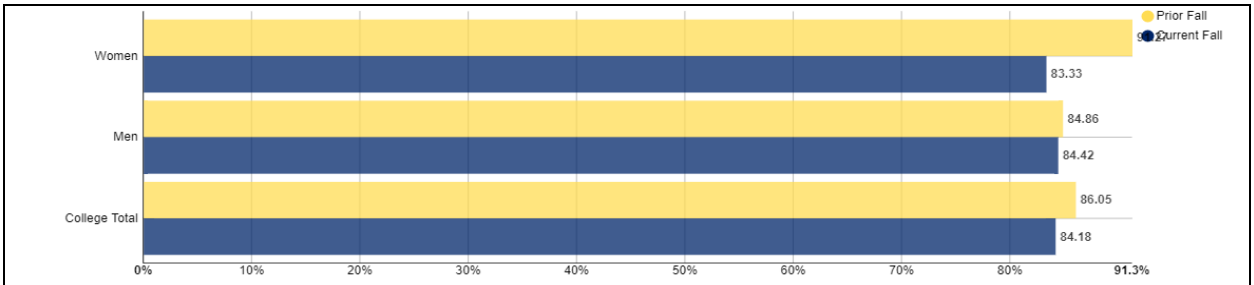


Figure 10. Retention rates by gender for undergraduates in the College of Engineering.

	Fall 2016		Fall 2017		Fall 2018		Fall 2019		Fall 2020	
	Cohort	**Rate**	**Cohort**	**Rate**	**Cohort**	**Rate**	**Cohort**	**Rate**	**Cohort**	**Rate**
African American	16	68.8%	13	38.5%	25	88.0%	16	81.3%	12	75.0%
American Indian	2	100.0%	2	50.0%	3	100.0%	0	0.0%	0	0.0%
Asian	15	86.7%	25	92.0%	12	91.7%	19	84.2%	21	95.2%
Hawaiian or Pacific Islander	1	100.0%	0	0.0%	0	0.0%	1	100.0%	2	50.0%
Hispanic/Latino	28	89.3%	31	77.4%	31	64.5%	20	85.0%	13	53.8%
Multi-racial	19	94.7%	18	94.4%	23	78.3%	27	88.9%	22	81.8%
Non-resident Alien	55	89.1%	29	89.7%	24	83.3%	32	93.8%	67	89.6%
Unknown	30	63.3%	30	90.0%	32	90.6%	23	78.3%	8	75.0%
White	520	86.5%	547	84.5%	554	85.2%	543	86.0%	525	84.4%
Sub-total by Engineering	**686**	**85.7%**	**695**	**84.2%**	**704**	**84.5%**	**681**	**86.0%**	**670**	**84.2%**

Graduation Rates and Degrees Awarded

Figure 11 shows the six-year graduation rates by ethnicity for the College of Engineering. The graduation rates African American has risen significantly for the Fall 2014 enrollees vs. previous years, which is an expected outcome with the roll-out of more significant admissions criteria within the College. All graduation rates of underrepresented minority populations are within +/- 8% of the majority rate of 67.8%, a far better spread that has been seen previously within the College. Figure 12 gives the six-year graduation rates for the college by gender. The graduate rates for female students are consistently higher than those of male students with the most significant difference coming with the most recent data (+21.0%).

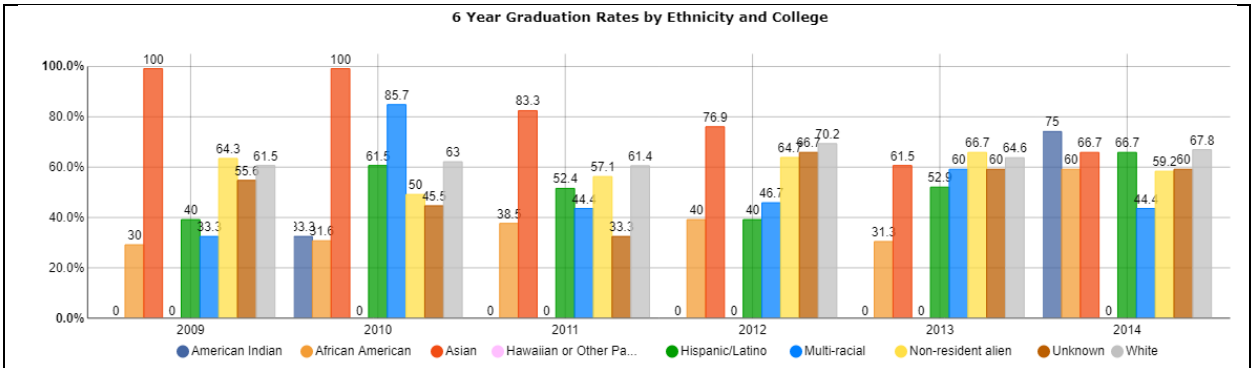


Figure 11. Six-year graduation rates by ethnicity for the College of Engineering.

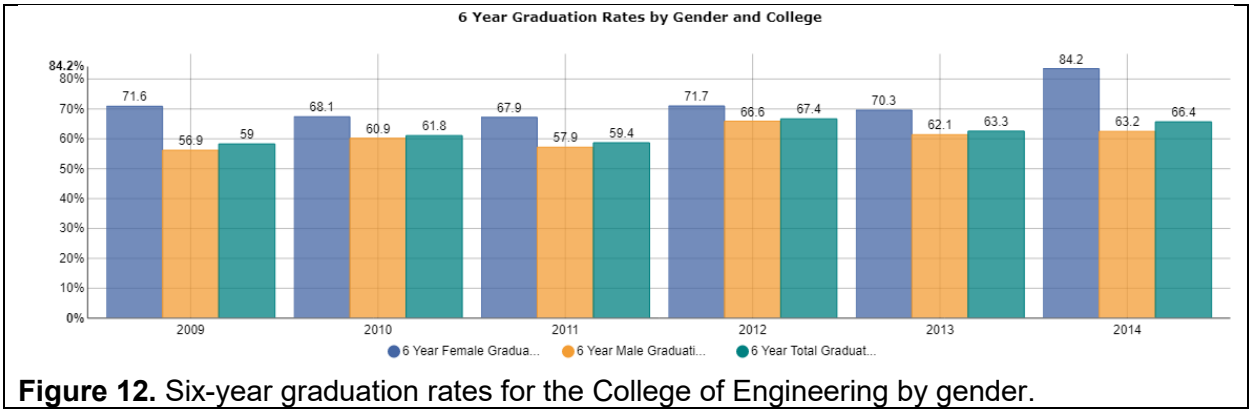


Figure 12. Six-year graduation rates for the College of Engineering by gender.

Figures 13 and 14 show the undergraduate and graduate degrees awarded in 2020 in the College of Engineering by gender and ethnicity.

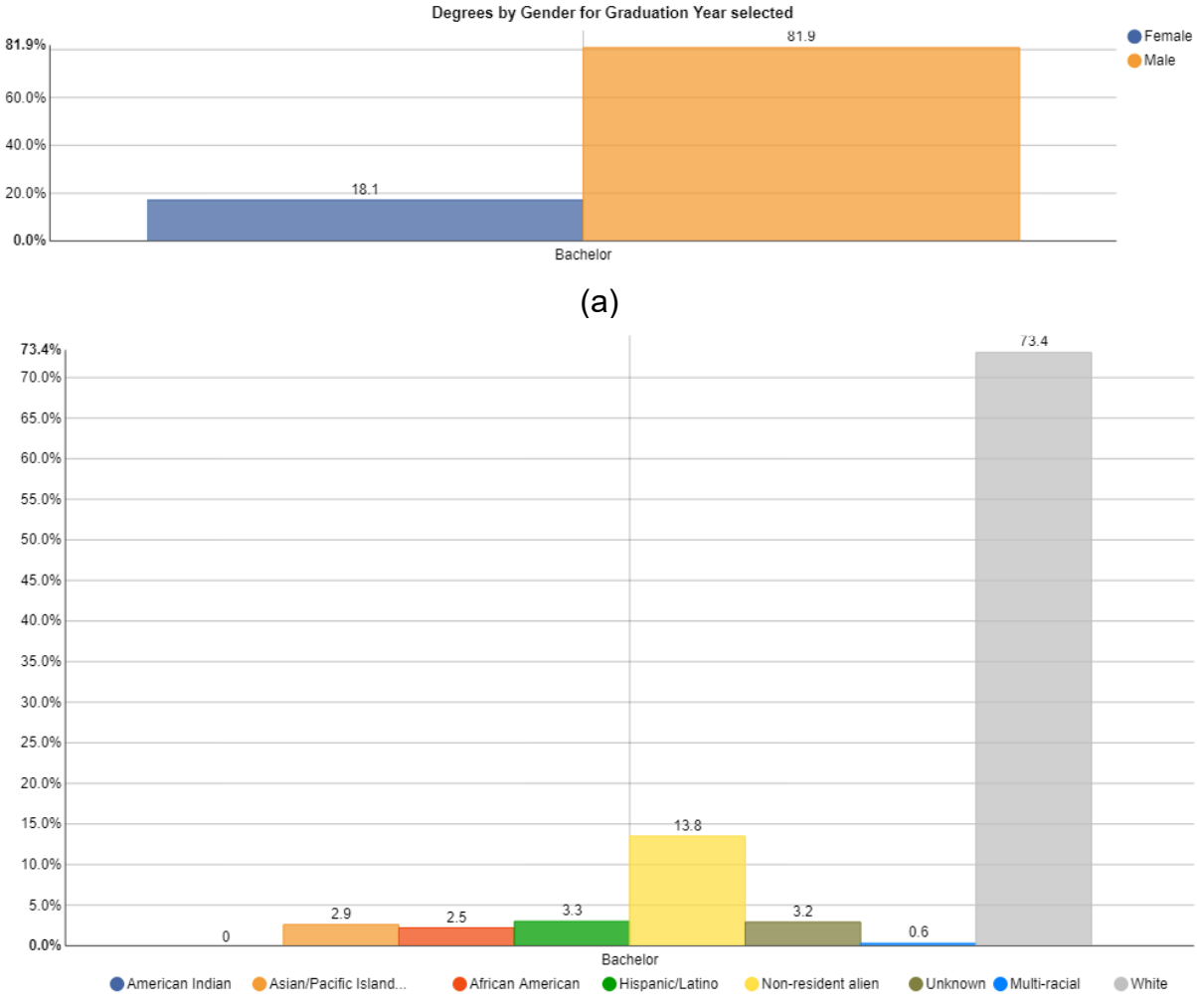


Figure 13. Undergraduate degrees awarded in 2020 in the College of Engineering by (a) gender and (b) ethnicity.

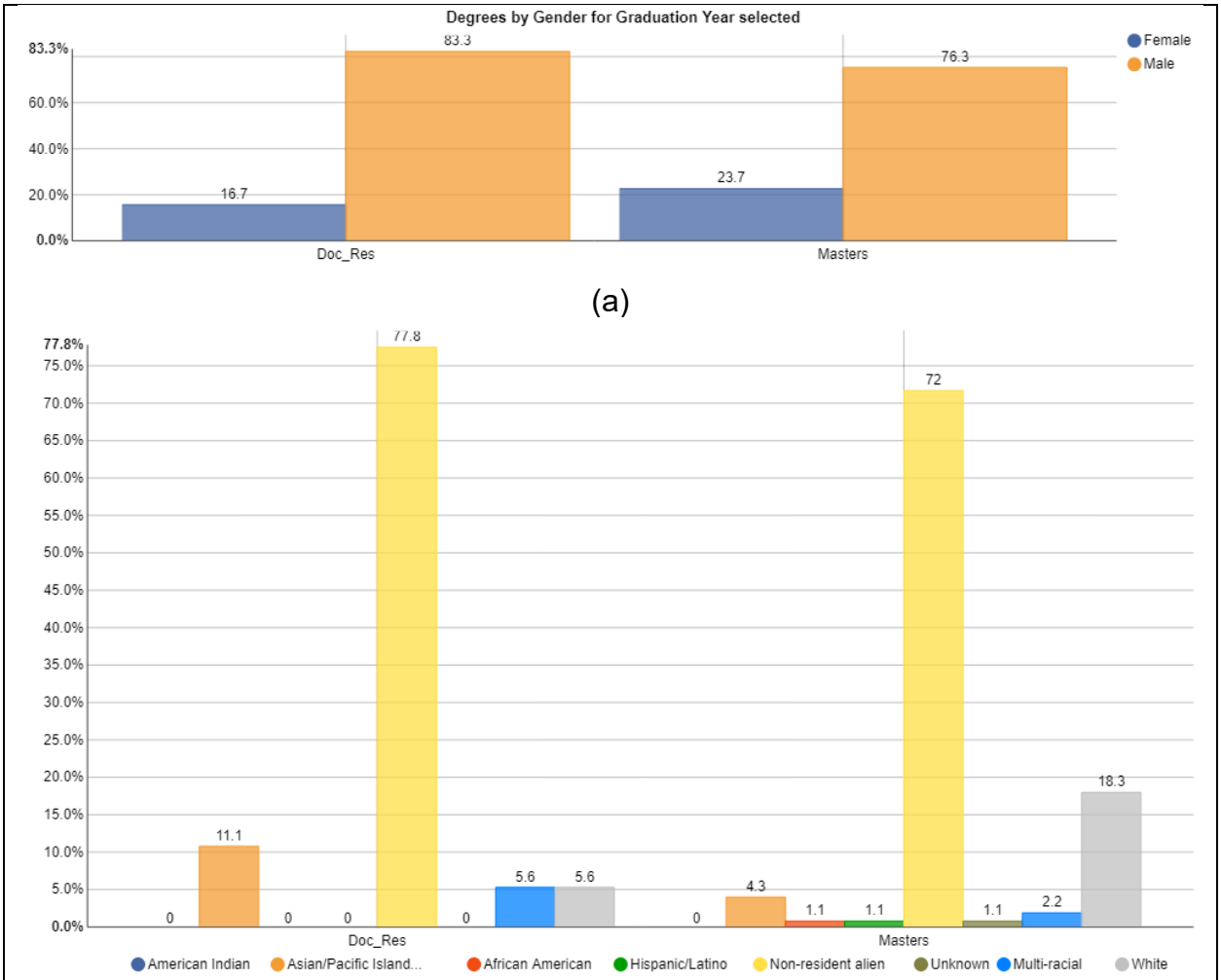


Figure 14. Graduate degrees awarded in 2020 in the College of Engineering by (a) and (b) ethnicity.

VI. GOALS AND STRATEGIES: THE PATH FORWARD

GOAL Timelines

Immediate: 1 to 5 months
Short: 6 to 12 months
Medium: 13 to 24 months
Long: 25 to 36 months

The College of Engineering Plan for Diversity

A plan to be integrated within the overall strategic plan of the college is being developed to enhance diversity within the College of Engineering. It is clear that a successful strategic plan cannot be achieved without addressing diversity. To this end, we have identified three goals, which are described below, together with specific actions that will promote greater diversity and will bring increased excellence to the community.

The College of Engineering diversity plan targets both females and domestic underrepresented minorities, such as African Americans, Hispanics and Native Americans (AAHNA). Females are included because they are underrepresented in engineering.

Goal 1

The College of Engineering will create a college climate that celebrates and respects diversity.

Strategies

1. Foster an inclusive college environment for all students.

2. Educate the members of the College community on ways to embrace diversity.
3. Increase awareness of issues that affect diversity within the college environment.

Actions

1. Support the missions and activities of existing student organizations and facilitate the formation of new student organizations that meet the needs of the diverse student population.

   Time Period: Immediate; 1 to 5 months
2. Provide workshops, seminars, and events in the engineering college community that specifically address diversity related issues.

   Time Period; Short; 6 to 12 months
3. Encourage students, faculty, and staff to attend university and community events that embrace diversity.

   Time Period; Short; 6 to 12 months
4. Support educational and professional development for students, faculty, and staff.

   Time Period; Short; 6 to 12 months
5. Maintain a College of Engineering Diversity website.

   Time Period; Immediate; 1 to 5 months

Qualitative and Quantitative Measurements

1. National Society of Black Engineers (NSBE) and the Society of Women Engineers (SWE) host an annual Leadership Breakfast for representatives from industry (coop

employers and corporate partners) to showcase their organizations and highlight their activities and accomplishments.

2. In February 2017, the College held its first “One Engineering” event to kick off Engineers Week as a celebration of the diversity in the college. The event included a mini student organization fair, as well as a large world map on which students, faculty and staff were invited to indicate their home towns/countries.
3. The UT chapter of ACM-W (Associate for Computing Machinery – W), supporting, celebrating, and advocating for women in computing was started in AY 2016-2017.
4. The University of Toledo became a member of the Academic Alliance (AA) of the National Center for Women & Information Technology in the Spring of 2017.

Challenges

1. At 3.9%, the percentage of Hispanic/Latino undergraduate students was at its highest in Fall 2016. Steps were taken in the Fall of 2016 to start a chapter of the Society of Hispanic Professional Engineers (SHPE); however, these efforts were unsuccessful due to insufficient student interest. This effort will be revisited in the next academic year.
2. The College of Engineering needs to develop a set of workshops or seminars that support and engage faculty in diversity.
3. The college would benefit from having a certified diversity trainer who is a faculty or staff member. This individual would be able to assist in the planning and delivery of workshops, training, and course modules on diversity.

Goal 2

Increase the number of underrepresented minority and female students pursuing undergraduate and graduate engineering degrees at the University of Toledo, College of Engineering over the next 5 years through recruitment and retention programs.

Strategies

1. Advance efforts for recruiting underrepresented minorities and women to the undergraduate engineering and technology programs.
2. Improve the retention efforts for underrepresented minorities and women enrolled in the College of Engineering
3. Enhance the preparation of the applicant pool of underrepresented students through pre-college pipeline programs.
4. Develop a strategy for recruiting a diverse group of domestic students to our graduate programs.

Actions

1. Identify opportunities for targeted recruitment of qualified underrepresented students and female students from regional high schools and engage/encourage them to attend our engineering college.

   Time Period: Short: 6 to 12 months
2. Review existing collaborations with community colleges and explore the feasibility of partnering with other community colleges to develop 2 plus 2 programs.

   Time Period: Medium; 13 to 24 months

3. Develop and implement departmental and college level recruitment strategies for domestic graduate students.

   Time Period: Medium: 13 to 24 months
4. Develop relationships with undergraduate programs at Historically Black Colleges and Universities (HBCUs) from which the college might recruit highly qualified graduate students for our graduate programs.

   Time Period: Medium: 13 to 24 months
5. Collaborate with high schools to develop early entry programs and College Credit Plus courses that might be applied to our degree programs.

   Time Period: Medium: 13 to 24 months
6. Work with corporate partners to develop scholarship programs for underrepresented students.

   Time Period: Short: 6 or 12 months
7. Partner with established pre-college programs for underrepresented students (e.g. Toledo Excel, Upward Bound, etc.).

   Time Period: Short; 6 to 12 months
8. Develop an ambassador program in which female and underrepresented students return to their high schools to share their experiences and encourage students to consider the College of Engineering.

   Time Period: Short; 6 to 12 months

Qualitative and Quantitative Measurements

1. Most departments in the College of Engineering have peer mentors in their orientation course.
2. In the area of targeted recruitment, in Fall 2016 the Director of Engineering Diversity Initiatives attended the following events to recruit underrepresented students for the College of engineering:
    - Women of Color in STEM Conference, Detroit, MI
    - Northeast Ohio NSBE Professionals Chapter Success School, Cleveland, OH
    - NSBE Regional , Chicago, IL
3. The College of Engineering is partnering with corporate partners to offer scholarship incentive programs for students beginning in high school
    - The BP Rocket Engineering Prep Program (REPP) accepted a cohort of rising 11th graders from Toledo Public Schools (TPS) in the summer of 2016. The program includes summer activities in the summers following the 10th, 1tth and 12th grades. Students from the cohort who are accepted into an engineering science program will receive tuition scholarships.
    - The Dana Excelling into Engineering Scholarship Program is a partnership between the University of Toledo College of Engineering, Dana Incorporated, and Toledo Excel aimed at increasing the recruitment, enrolment, retention, and success of underrepresented students in degree programs offered by the College of Engineering at the University of Toledo. The program is designed to give motivated students with an expressed interest in engineering the opportunity to increase their

knowledge of and exposure to a variety of engineering careers and to enhance their academic preparation. The four-stage program begins after the completion of 11th Grade and continues through the completion of a degree from the College of Engineering at the University of Toledo. The program was launched in the spring of 2017.

Challenges

1. The funding for large diversity initiatives is largely from corporate sources. Instead of 'reinventing the wheel' and creating separate programs for each sponsor, resources could be pooled to develop a single sustainable engineering pipeline program for underrepresented students.
2. Within the college structure, resources are needed and a system of rewards put in place for programming that targets the recruitment and retention of underrepresented minorities and female students.
3. There is a need to develop appropriate assessment measures to gage the success of programming geared at recruitment and retention. This assessment could be used to identify and fund effective programming.

Goal 3

Broaden participation in engineering among K-12 students in the Toledo area, and female and students from underrepresented groups in particular, through initiatives geared towards increasing awareness of, and interest in engineering,

Strategies

1. Engage the Toledo community through engineering events that are open to the public.
2. Develop and implement college and department level outreach programs that focus on broadening participation in engineering among underrepresented minority and female students.
3. Foster an ongoing environment focused on diversity by holding at least two meetings annually to discuss college and departmental level outreach efforts that are planned or have been implemented.

Actions

1. Identify opportunities to work with school administrators to facilitate engineering and organizations and area schools.

   Time Period: Short: 6 to 12 months
2. Establish the College of Engineering as being the regional hub of community outreach and engagement in engineering and technology.

   Time Period: Medium; 13 to 24 months
3. Foster an environment that encourages, recognizes, and rewards involvement in outreach activities among students, faculty and staff.

   Time Period: Short; 6 to 12 months

4. Generate an inventory of ongoing outreach activities that students, faculty, and staff are currently involved in, and explore ways to align, support, and connect activities for increased effectiveness and impact.

   Time Period: Short; 6 to 12 months

Qualitative and Quantitative Measurements

1. Dr. Mark Pickett (retired professor and current part time faculty in civil engineering) has coordinated several outreach activities over the years that have involved students from groups typically underrepresented in Engineering and Mathematics, students of low socioeconomic status (SES), and 6-12th grade teachers of these students. These projects include:
   a. 1997-2017: A two-semester sequence of professional development course for the college of education, funded by the Ohio Department of Education programs, such as Eisenhower Teacher Improvement, Improving Teacher Quality, Migrant Education Program, and US Department of Education, GEAR-UP program, 2000-2004.
   b. 1998 – Present: organized and taught (with other faculty) two-week Math/Science summer programs for rising freshmen in the Toledo EXCEL program for underrepresented students.
   c. 1998-2017 organized and taught (with other UT faculty) a Math/Science enrichment program to migrant students at schools in rural locations operated by the Ohio Migrant Education Center, OMEC this also included; 2005-2015, bringing high school students to UT campus for a two-day overnight program

2011-2015, bringing K-8th grade students to UT campus for a half-day program 2016-present, taking programs to K-8th grade students at their rural OMEC school locations.

   d. Latino Youth Summit; Ohio Department of Education and The University of Toledo.

2. In recent years the UT Chapter of NSBE has developed and facilitated a NSBE Jr. Pre-College Initiative (PCI) chapter at Old Orchard Elementary. The PCI chapter was disbanded in AY 2015-2016 due to in sufficient resources at the school to support this after school activity.
3. In Spring 2017 The College of Engineering began sponsoring a Girls Who Code Club (GWC) at Toledo Early College High School (TECHS) in the spring semester of 2017. Girls Who Code is a national non-profit focused on closing the gender gap in technology and to introducing girls to computer programming and careers in computer technology. The TECHS club is the first GWC club in northwest Ohio. A senior computer science student, Ms. Courtney Greer served as the club's mentor, teaching the GWC curriculum to the students twice a week.
4. In February 2017, the College of engineering hosted a screening of the film "Dream Big: Engineering Our World", a film about engineering and how engineers positively impact the world with their designs. The event was free to the public. The screening of the film was followed for a question and answer session with faculty, staff, and students from the College of Engineering at the University of Toledo, as well as practicing engineers from the Toledo area. Students from the University of Toledo chapter of Engineers without Borders (EWB) also shared their experiences and

information on the projects the chapter has been involved in. Approximately 150 people attended the screening. Groups of students from the following schools/programs attended the event: Toledo Excel, Toledo Upward Bound, Start High School, Toledo Islamic Academy, Toledo Early College High School, Gesu School.

5. 2010 to Present: Faculty members from the College of Engineering in collaboration with faculty from the College of Natural Sciences and Mathematics, College of Medicine, and College of Pharmacy, have hosted the Women in STEMM Day of Meetings (WISDOM) – a day of hands-on STEMM activities for female high school sophomores.

Challenges

1. The college must develop a plan to transfer responsibility for the various projects currently under the direction of Dr. Mark Pickett to other faculty members so as to ensure continuity of the program after he transitions to full retirement.
2. Within the college structure, resources should be made available, and a system of rewards for programming that targets broadening participation and outreach activities should be put in place.

Goal 4

Increase the number of underrepresented and female faculty and staff through active recruiting and retention efforts.

Strategies

1. Develop and implement a comprehensive recruitment plan that uses multiple recruitment strategies that will increase the diversity of the college's applicant pool.
2. Strengthen staff and faculty professional development activities to position individuals for career advancement.
3. Enhance awareness of Chairs, Directors, and Administrators of current staffing profile of the College and opportunities for improvement.
4. Promote the engineering college as a dynamic work environment.

Actions

1. Advertise open positions in publications whose targeted audiences are minorities and/or women.

   Time Period; Short; 6 to 12 months
2. Require the presence of underrepresented minorities or a member of the Diversity Committee on all College of Engineering search committees for unfilled faculty and staff positions.

   Time Period; Immediate; 1 to 5 months
3. Establish mentoring programs for all staff and pre-tenure faculty.

   Time Period; Short; 6 to 12 months
4. Provide financial support and assistance to departments to identify and recruit minority and female faculty, in addition to the normal budget for recruitment efforts.

   Time Period; Short; 6 to 12 months
5. Supply funding for professional development activities.

   Time Period; Short; 6 to 12 months

Ethnic Descriptions

ETHNICITY	DESCRIPTION
American Indian or Alaska Native	A person having origins in any of the original peoples of North and South America (including Central America) who maintains cultural identification through 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.
Hispanic/Latino	A person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin, regardless of race.
Native Hawaiian or Other Pacific Islander	A person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.
Nonresident alien	a person who is not a citizen or 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.
Race and ethnicity unknown	Race Unknown
Two or more races	Two or more races
White	A person having origins in any of the original peoples of Europe, the Middle East, or North Africa.

Source: Office of Institutional Data