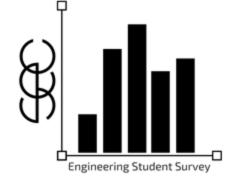


Student Engineers' Council

# ENGINEERING STUDENT SURVEY



### **Results Presentation**

February 7th, 2024



## Survey Executive Summary



### Mission

One of the three primary missions of the Student Engineers' Council is to serve as a representative voice for the students within the College of Engineering. This survey seeks to communicate the student perspective to College of Engineering administration.



### Survey Executive Summary



### Survey Restructuring

Section edits:

- Addition of Advising Questions
- Addition of Career Fair Section
- Adjustments of Community and Belonging Section <u>Handout:</u>
- Demographics section is provided in the handout.
- A summary of highlights from each section is provided in the handout.



### Survey Question Breakdown



Introduction/Demographic Questions Engineering Student Organization Questions Undergraduate Student Questions **ETAM** Questions Graduate Student Questions Post-Graduation Questions Internship and Professional Experiences Questions Career Fair Ouestions International Experience Questions Mental Health Questions Community & Belonging Questions

Slide 07 Slide 19 Slide 24 Slide 41 Slide 47 Slide 53 Slide 59 Slide 66 Slide 74 Slide 81 Slide 88



Survey Response Summary



### **6-Week Survey Period** October 31st, 2023 – December 12th, 2023

### **3,829 Total Respondents** ~16% of Engineering Student Body (75% from Undergraduate Students + 25% from Graduate Students)



Special Thanks



Dr. Andrea M. Ogilvie, Assistant Dean for Student Success Dr. Angie Hill Price, Associate Dean for Undergraduate Programs Dr. Harry Hogan, Senior Associate Dean for Academic Affairs, SEC Advisor

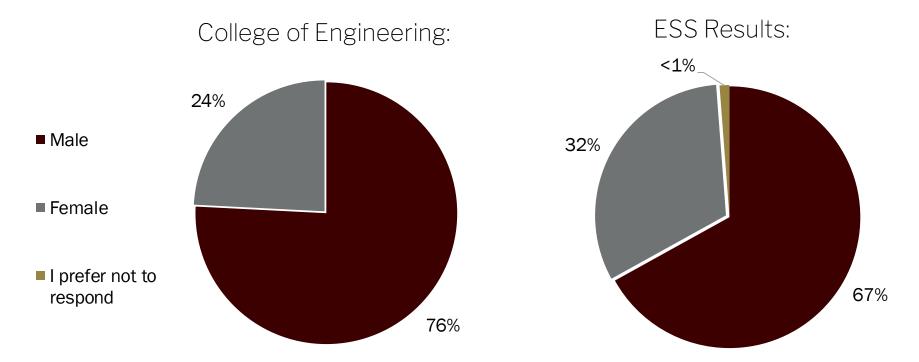
> Vivian Zheng, SEC President Samantha Lo, SEC VP Internal

# Introduction/Demographic Questions

Asked to all students

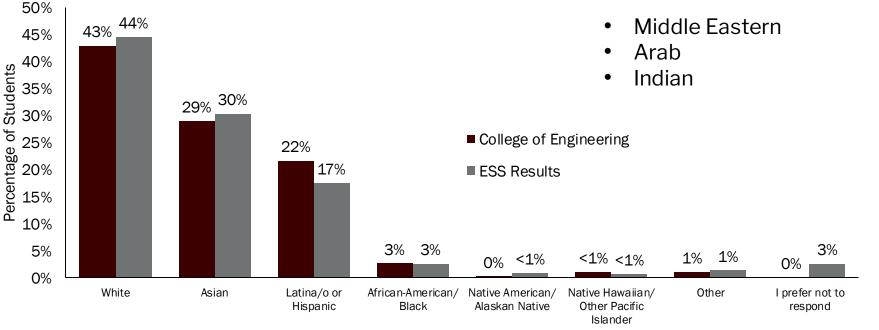


What gender do you identify as?



Fall 2023 Engineering Student Survey

9



Race/Ethnic Identification: (select all that apply)

#### Responses: 3829

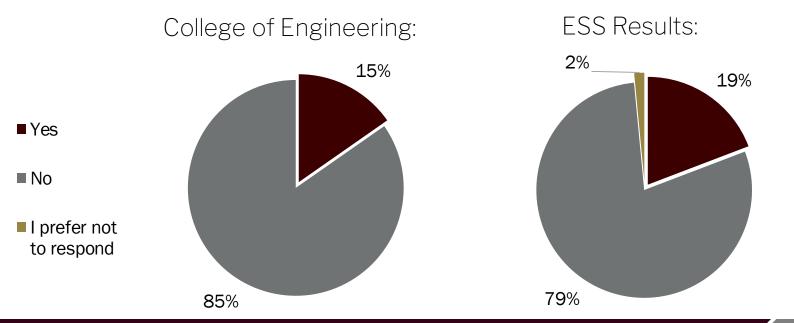


Popular "Other" responses:



### Are you a first-generation college student?\*

\*The U.S. Department of Education defines a first-generation college student as a person "whose parents both have had no postsecondary education experience and have a high school education or a lower level of educational attainment." (https://nces.ed.gov/pubs2018/2018009.pdf)



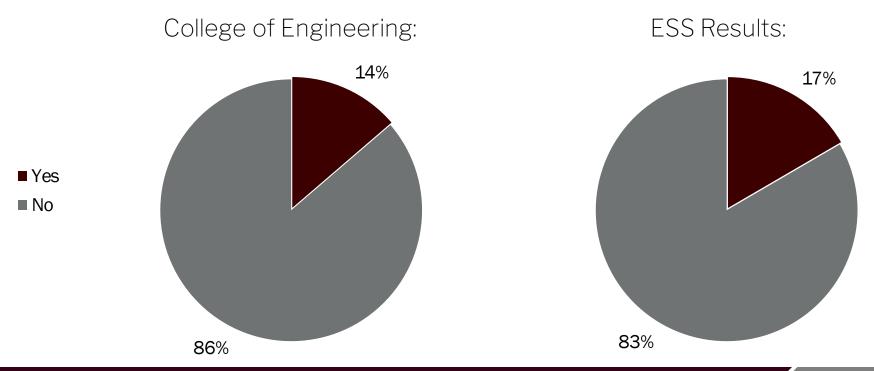
Are you the first member of your family to study/have a career in engineering?

2023: 2022: Yes 48% ■ No 49% 51% 52%



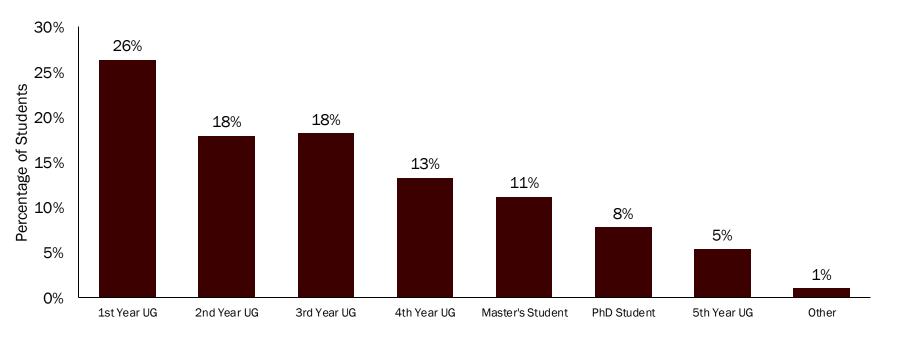


Are you an international student?



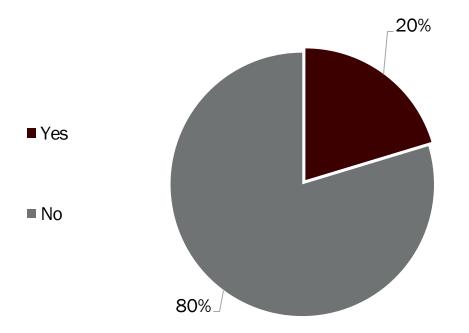


Which of the following most accurately represents your class year at Texas A&M University?



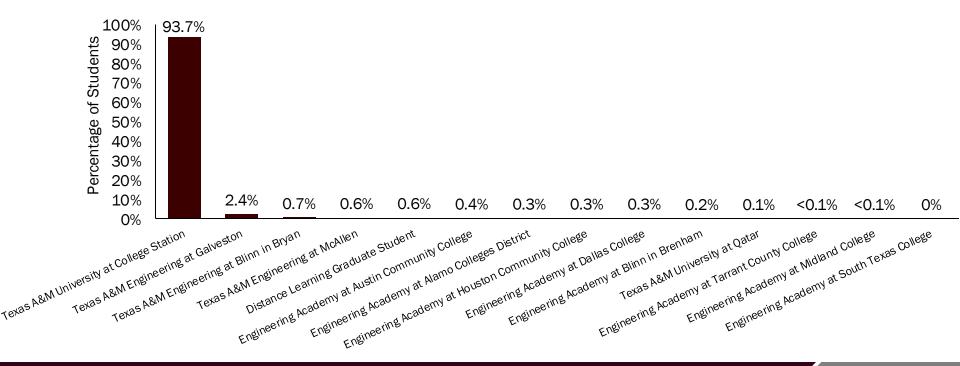


Are you graduating in December 2023 or May 2024?

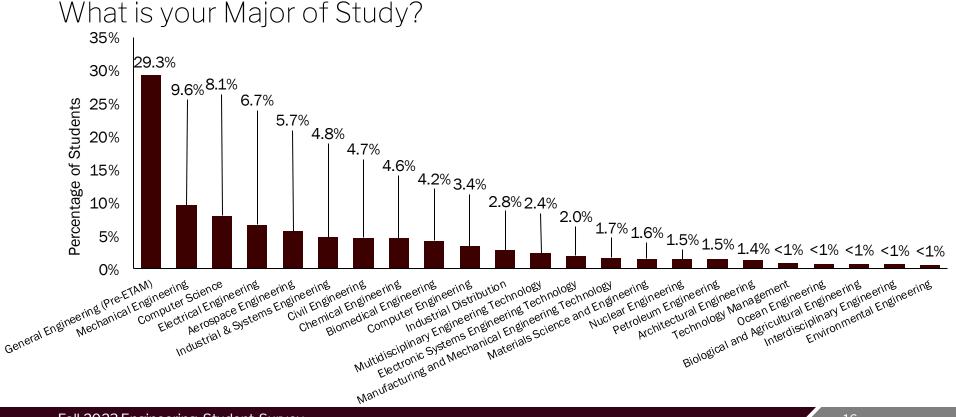




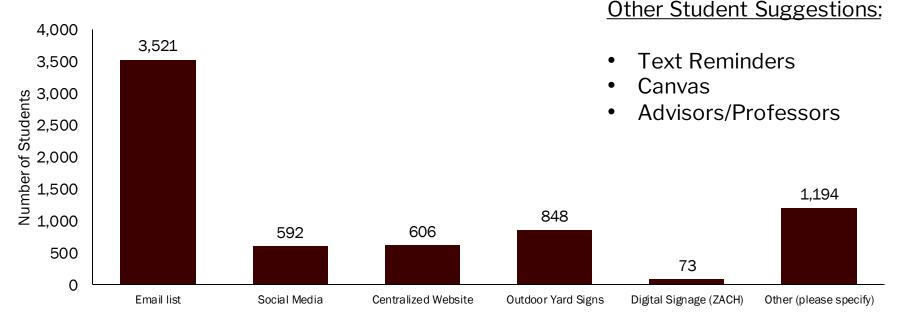
At which campus do you currently take the majority of your courses?







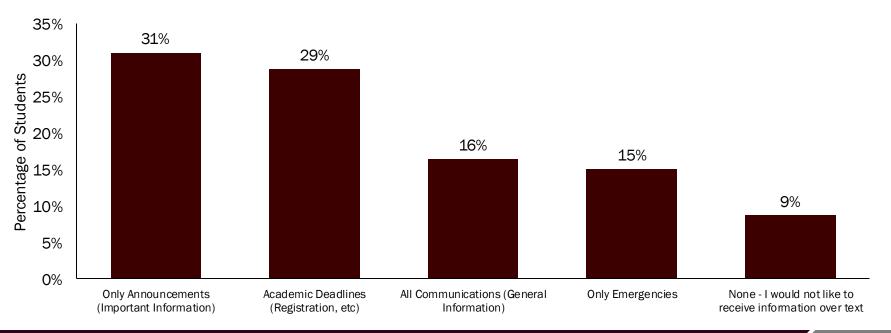
How would you prefer to receive information about events, scholarships, career opportunities, and other general information from the College of Engineering? (select all that apply)







If the College of Engineering were to use text messages as a method of communication, how much information would you like to receive?



# Questions?

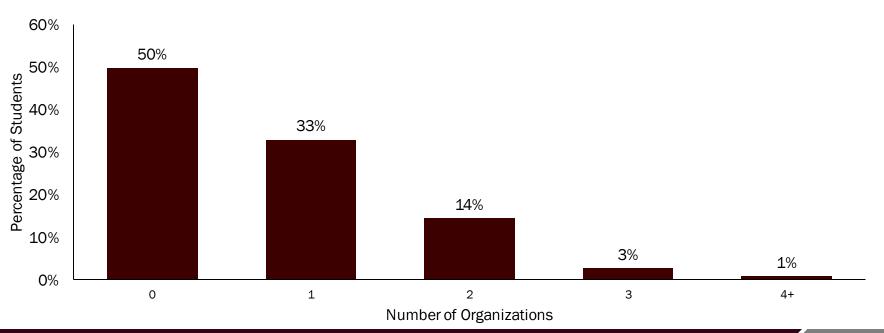
Engineering Student Organization Questions

Asked to all students



# How many Engineering Student Organizations (ESOs) and/or Engineering Societies are you currently involved in?

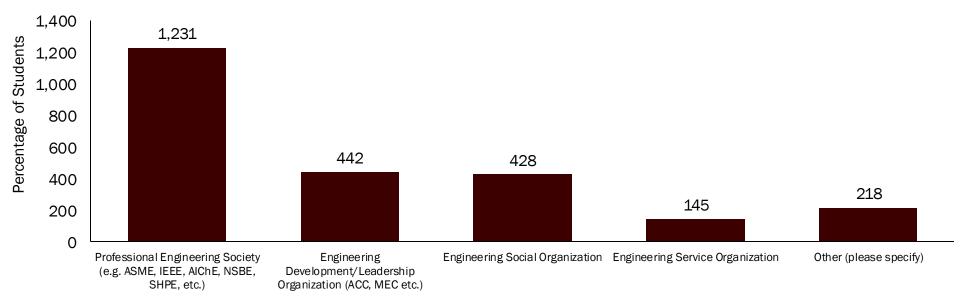
\*An ESO is defined as an organization that is recognized by StuAct or the COE as an Engineering Organization.



Asked to students who are involved in 1+ organization(s) Responses: 1914



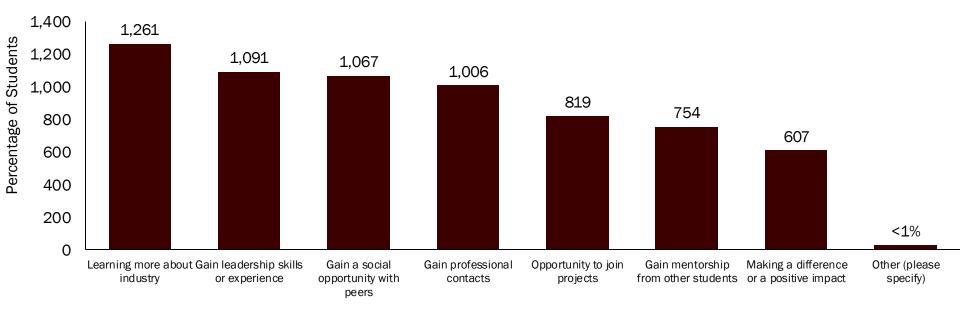
What type of Engineering Student Organizations (ESOs) and/or Engineering Societies are you involved in? (*select all that apply*)



### Asked to students who are involved in 1+ organization(s) Responses: 1914

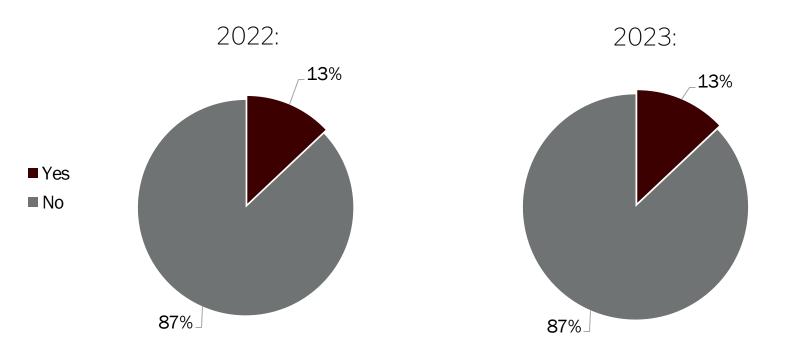


Why did you become involved in your Engineering Student Organization(s)? (select all that apply)





Did you attend the Engineering Student Organization (ESO) Open House this semester on Wednesday, August 30th?



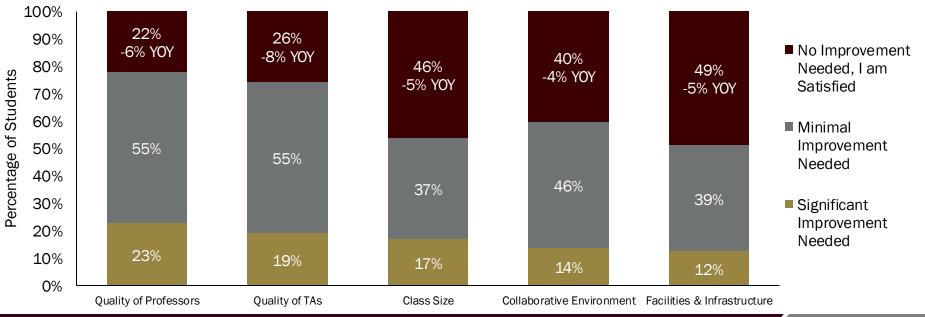
# Questions?

# Undergraduate Student Questions

Asked to undergraduate students only



Please indicate, for each College of Engineering attribute, the level of improvement you believe is necessary.



Fall 2023 Engineering Student Survey



Please indicate the effect that each of the following College of Engineering attributes has on your undergraduate student experience. *(open ended)* 

### Improved Selection of Professors and TAs for courses

- "... [It's] important to hire professors who really are enthusiastic, great at teaching, and empathetic, truly caring about the students."
- "Instead of hiring faculty/TAs based on their research and expertise for first year or intro classes, hiring should be based on teaching capabilities."
- "Some TA's have no understanding of the material, also very little to no communication between TA's and instructors"

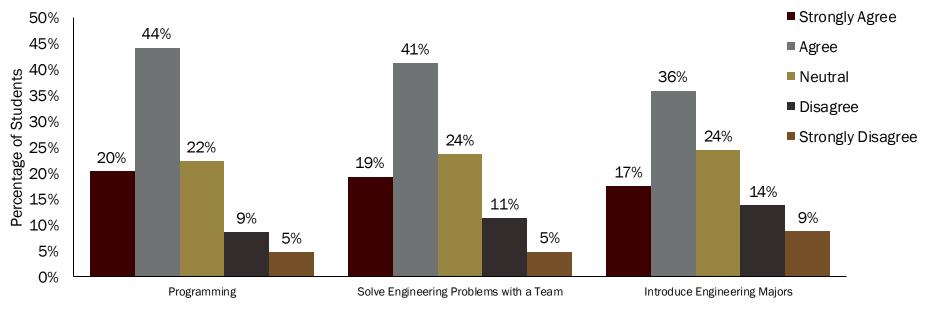
#### Facilities and Class Size

- "There needs to be more study tables in ZACH. There is too much unused open space, study rooms are always taken or reserved, and no ones shows up to them."
- Engineering buildings (other than Zachry) need updates and renovations.
- "Reductions in class size can result in more direct professor-student contact & learning."
- "... We need more hands-on projects"

#### Asked to non-first year undergraduate students Responses: 2303



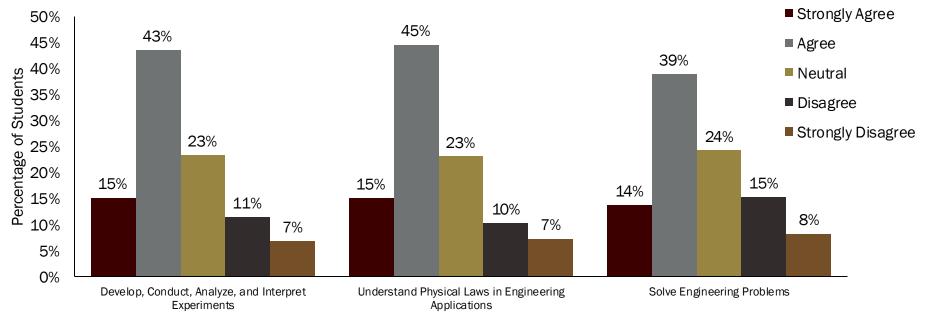
My ENGR 102 coursework adequately prepared me to be an upper level engineering major in the following ways. *Notable statistic: No category had a year-over-year change > 2%* 



#### Asked to non-first year undergraduate students Responses: 2213



My ENGR 216 and 217 adequately prepared me to be an upper-level engineering major in the following ways. *Notable statistic: No category had a year-over-year change > 2%* 



### Asked to non-first year undergraduate students Responses: 681



Please elaborate on how the coursework did or did not adequately prepare you to be an upper-level engineering major. *(open ended)* 

#### Inconsistencies Between Professors

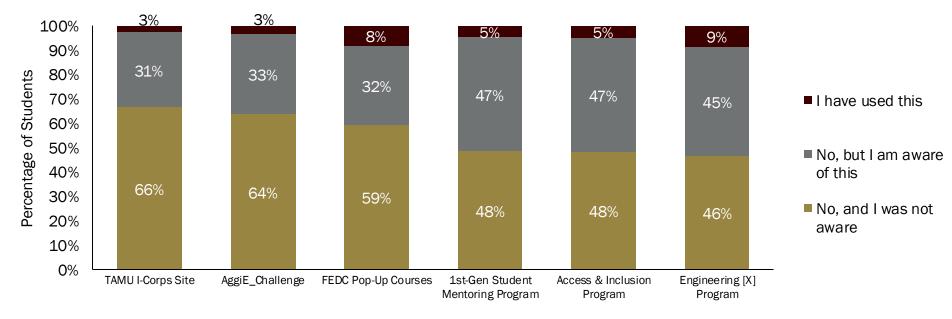
• For 102 and 216/217, there were vast differences in how material was taught/tested; thus, any given student seemed to learn different things.

#### Course Topics/Structure

- Some upperclassmen noted they "can't remember what was even taught" in 216/217.
- "216 and 217 touched on so much so fast that they were worthless... Watered down information from 206 and 207."
- "I never saw many engineering applications in either 216 or 217, we just did experiments."
- "102 ... is not in favor of the student. It ... creates much more confusion."
- "[102] taught virtually nothing about the other majors ... you had to do your own research to learn valuable information."

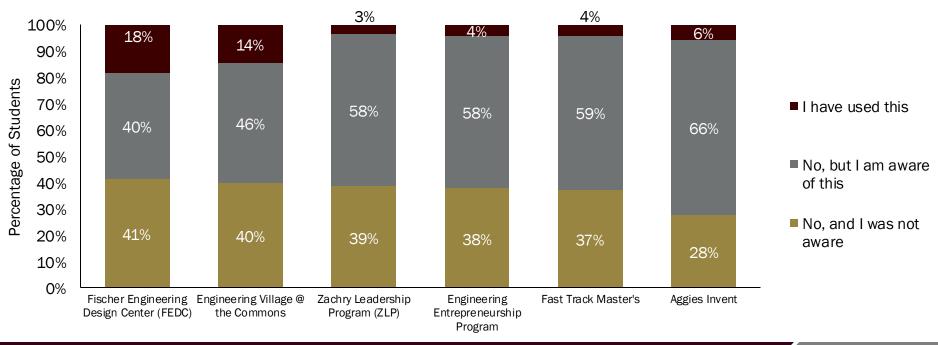


Have you used or participated in the following Programs and/or High-Impact Experiences during your time in the College of Engineering? Notable statistic: each of the 6 categories shown showed a 3%-6% YOY decrease in awareness



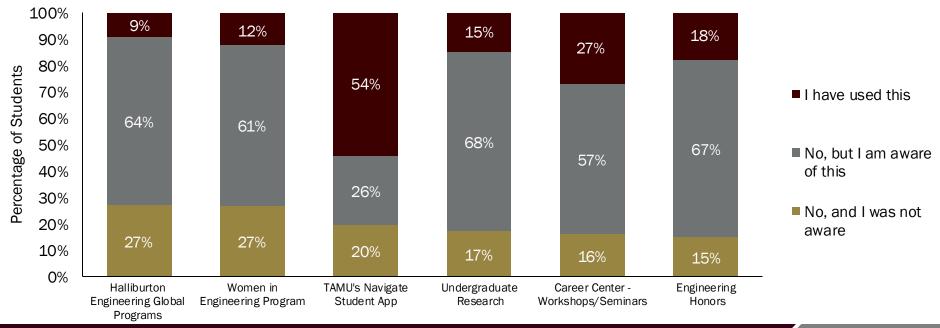


Have you used or participated in the following Programs and/or High-Impact Experiences during your time in the College of Engineering?





Have you used or participated in the following Programs and/or High-Impact Experiences during your time in the College of Engineering? Notable statistic: Navigate App usage increased from 49% to 54% year-over-year



Fall 2023 Engineering Student Survey



What suggestions do you have to improve the Programs and/or High Impact Experiences above? (open ended)

#### More awareness for programs

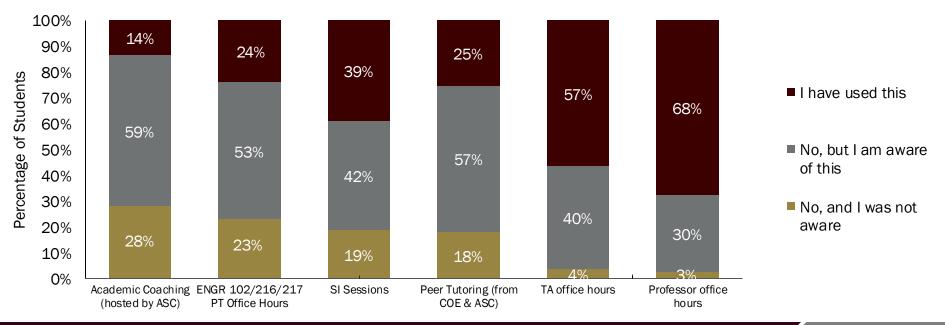
 "The programs themselves are good (as far as I know), but I feel that the department should do more to make students aware of them. I didn't know most of those existed until mid-way through my Junior year."

#### Program Specific Suggestions

- "FEDC: It's way, way too hard for students to access. It feels more like eye-candy for engineering recruits than an actual resource for engineering students."
- "Aggie's Invent: Increasing access to resources" and "providing a wider range of problem [statements]"
- Women in Engineering: Many students are passionate about its growth (this category had the highest YOY jump in awareness of the 15, at 5%).
  - "Without the Women in Engineering program I would've never stayed in my engineering major."



Have you used or participated in the following Academic Support Services during your time in the College of Engineering? *Notable statistic: Academic Coaching (ASC) usage increased 5% year-over-year* 



# Asked to students who have participated in 1+ services Responses: 518 – 2587



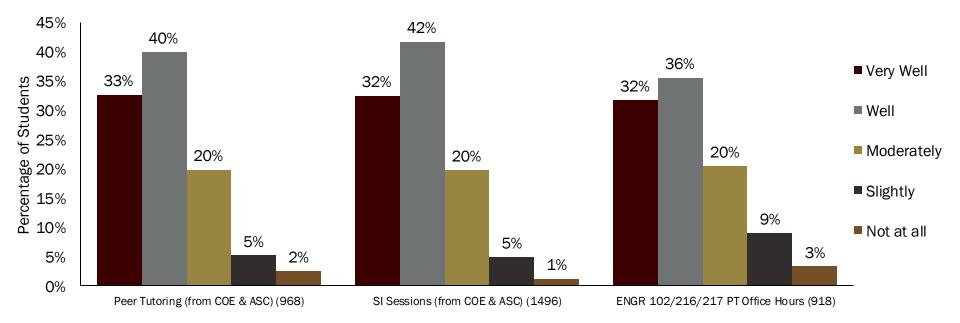
Of the College of Engineering Academic Support Services you have used, how well did they meet your needs? *Notable statistic: Academic Coaching (ASC) satisfaction increased significantly year-over-year* 

45% 41% 40% 40% 38% 40% 36% Very Well 34% of Students 35% 30% Well 25% 21% Moderately Percentage 20% 16% 14% Slightly 15% 10% Not at all 6% 4% 4% 3% 5% 2% 1% 0% Professor office hours (2587) TA office hours (2166) Academic Coaching (hosted by ASC) (518)

Asked to students who have participated in 1+ services Responses: 518 – 2587



Of the College of Engineering Academic Support Services you have used, how well did they meet your needs?



# Asked to students who have participated in 1+ services Responses: 604



What additional College of Engineering Academic Support Services would be helpful to you in meeting your needs? *(open ended)* 

# More Availabilities for Tutoring Opportunities

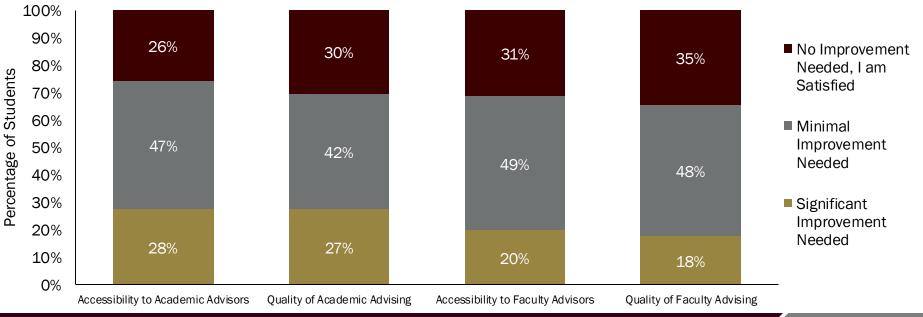
- Regarding nearly every academic support opportunity, the vast majority of requests are for extended hours (PT, SI, ASC, Office Hours)
- The PTs need to be able to assist with homework better
- SI Sessions and videos (similar to those provided for 206/207) should be extended to more base engineering classes

#### <u>Upper-Level, Course Specific Academic Support Options</u>

• "More tutoring services for major coursework, such as ECEN tutoring"

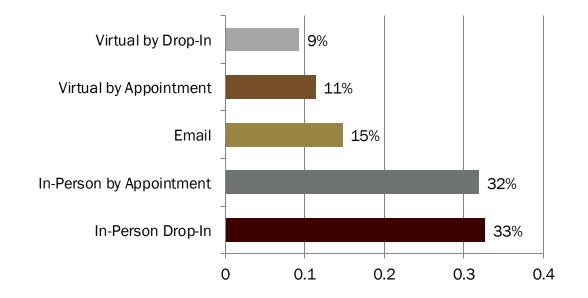


Please indicate, for each College of Engineering attribute, the level of improvement you believe is necessary.



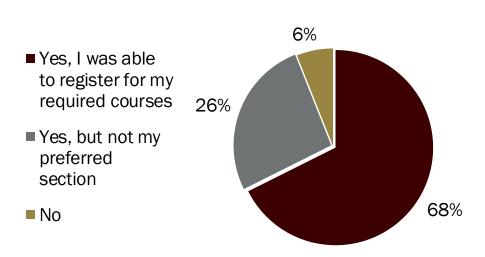


What is your preferred method of advisor communication?





When registering for the Fall 2023 semester, were you able to register for the courses that are required for your major?



Top courses students could not register for: (open ended)

- 1. ENGR/PHYS 217 (24)
- 2. MEEN 210 (9)
- 3. ECEN 248 (8)
- 4. MEEN 464 (7)

2% YOY increase in preferred sections, but *No* remained the same

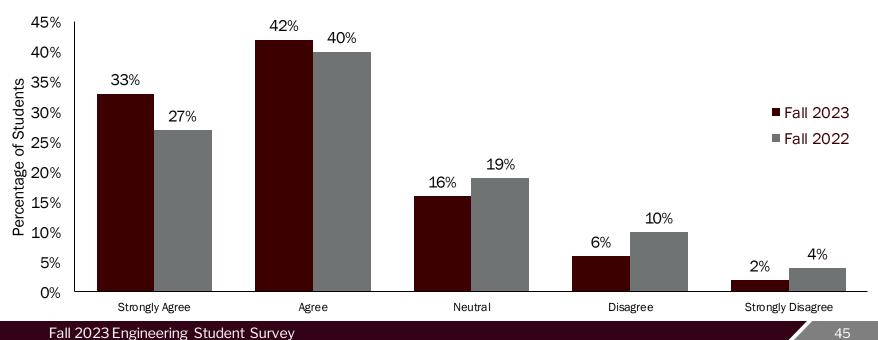
# Questions?

# Entry-to-a-Major Questions

Asked to all students who said that they had completed ETAM

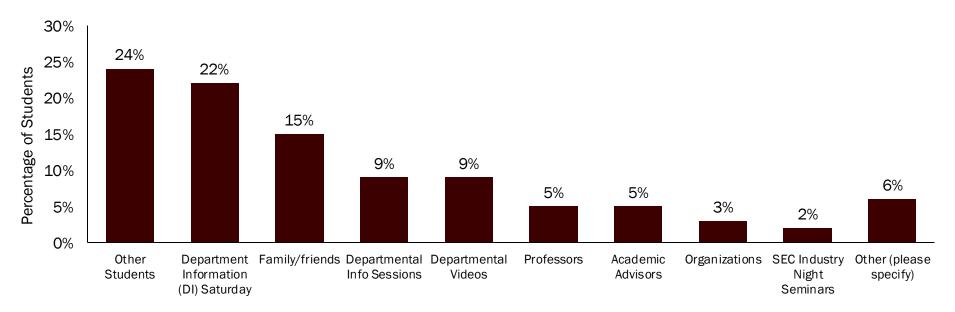


Did you feel as if you received sufficient information about the different engineering majors to make an informed decision regarding choosing your major?





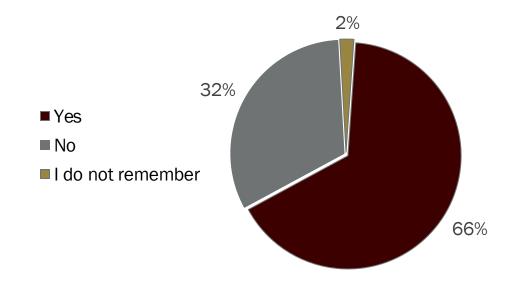
During your first year at Texas A&M University, what is/was the <u>most helpful</u> source of information when selecting or confirming your choice of major for the ETAM process?



Asked to 2<sup>nd</sup> year undergraduate students Responses: 539



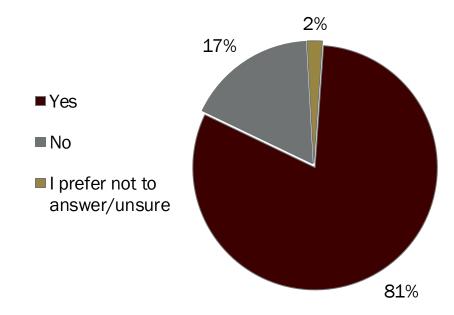
To the best of your recollection, when undergoing the ETAM process, was your first-choice major the same major you chose when you applied to Texas A&M University?



Asked to 3<sup>rd</sup> year undergraduate students Responses: 661



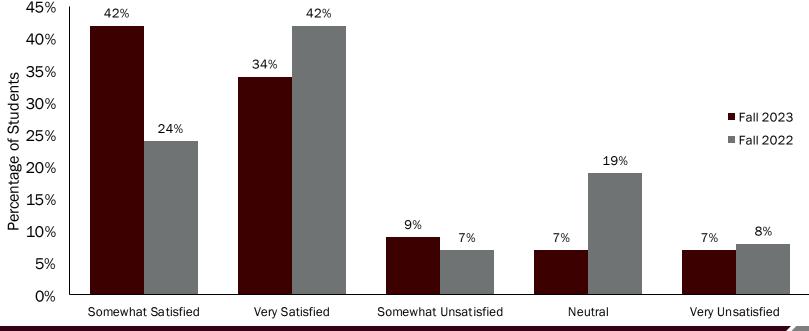
Was the major you were offered during the ETAM process your first preference when you applied to ETAM?



Asked to 3<sup>rd</sup> year undergraduate students who answered 'No' Responses: 116



After spending time in your major following the ETAM process, how satisfied are you with your offered major?



Fall 2023 Engineering Student Survey

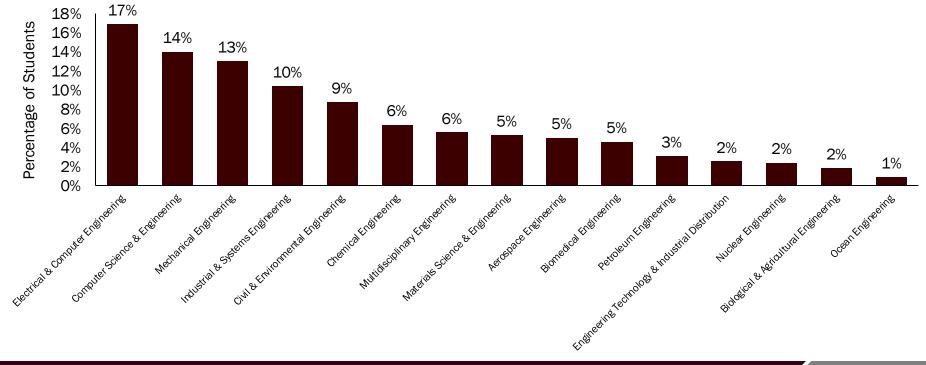
# Questions?

# Graduate Student Questions

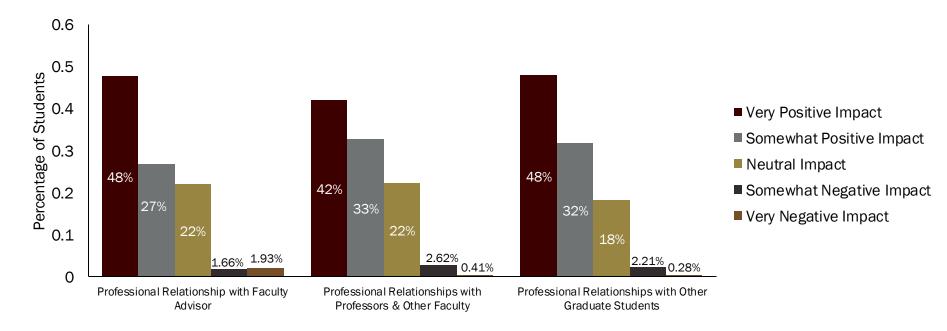
Asked to Master's & PhD students



# In which department are you enrolled as a Graduate student?



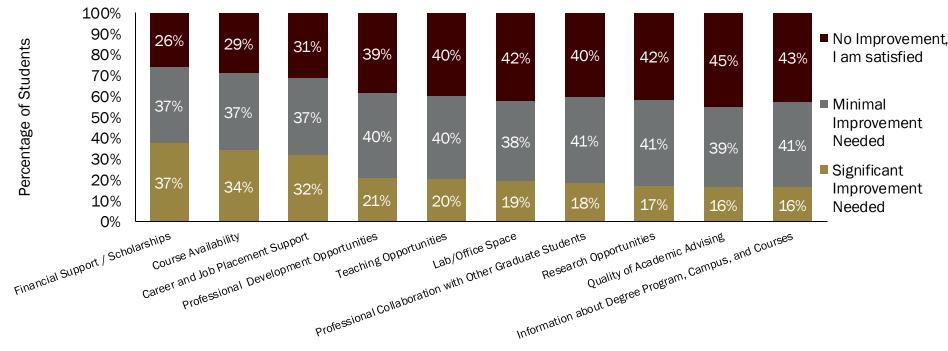
Please rate the impact of the following relationships on your Graduate Student Experience.







Please indicate, for each College of Engineering Graduate Student attribute, the level of improvement you believe is necessary.





Please provide any suggestions you may have for the College of Engineering Graduate Student attributes you believe could be improved. *(open ended)* 

#### Financial Support / Scholarship Opportunities

- "The inflation affected many students whose graduate assistantship salaries remained the same over the years with no increase. Most of these graduate assistants are international students and therefore are not allowed to work outside the university. Hence these salaries are their only source of income in a college town where the prices are going up every year."
- "As I support two people on my research assistantship, it would have been supremely helpful to be eligible for financial support in my first year/semester."

## Course Availability

- "Courses should be offered more regularly. For a master's student that might be completing their degree in one year, if a course is only offered every 3 semesters, they might not be able to take it even if relevant to their desired focus."
- "We had to check every 15-30 mins to see if seats have become available."



Please provide any suggestions you may have for the College of Engineering Graduate Student attributes you believe could be improved. *(open ended)* 

#### Career and Job Placement Support

• "Career fair was a bust compared to my undergrad career fair -- all the 'recruiters' weren't actively recruiting, they were simply giving information about their company and telling students to apply online."

#### Research Postings

- "There has to be a better way for professors to advertise their research opportunities. Chasing them all down and trying to get a grasp of how their research group functions and if there is funding available is currently a nightmare."
- "There could be **clearer ways to connect students to research groups/professors.** Perhaps a centralized website where professors can put up available research positions (like a job posting), which updates once the position(s) are filled."
- "It would be better if there is information about the **list of professors who have funding** for Master or PhD students, **so students can easily know which professors they should ask** to get the opportunity."

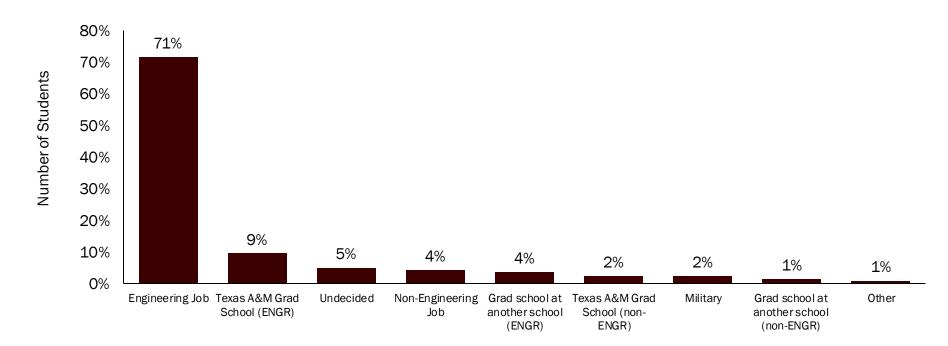
# Questions?

# Post-Graduation Questions

Asked to students graduating in December 2023 or May 2024



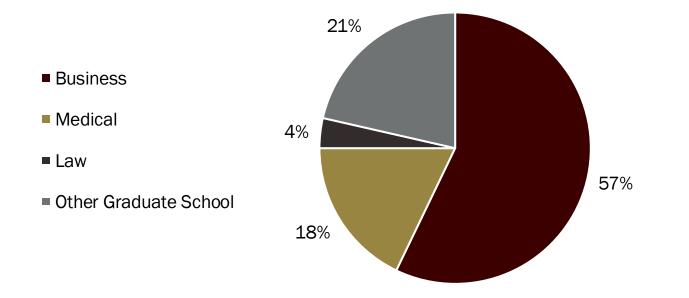
Which of the following will you pursue after you graduate?



# Asked to students pursuing non-engineering graduate school Responses: 28



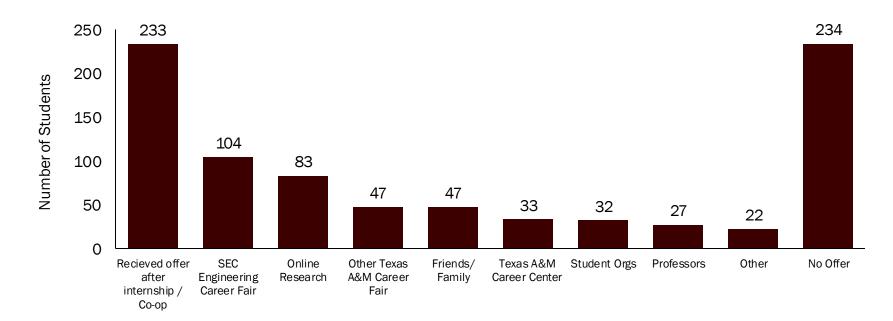
What kind of graduate school are you pursuing after you graduate?



# Asked to students pursuing a full-time job after graduation Responses: 588



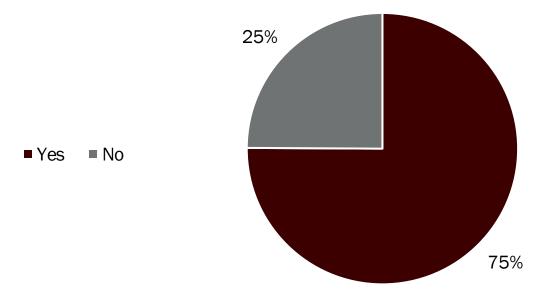
How did you obtain your full-time job opportunity (select all that apply)?



# Asked to students who have received a full-time job offer Responses: 586



Were you given sufficient time (2 weeks or more) to make a decision regarding the employment offer?



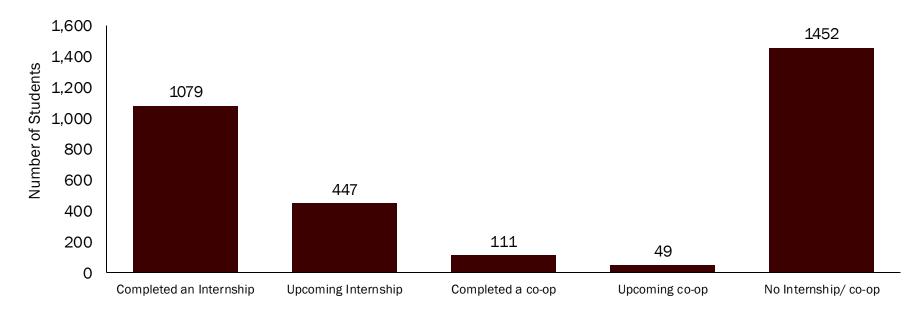
# Questions?

Internship and Professional Experiences Questions

Asked to all non-first year students



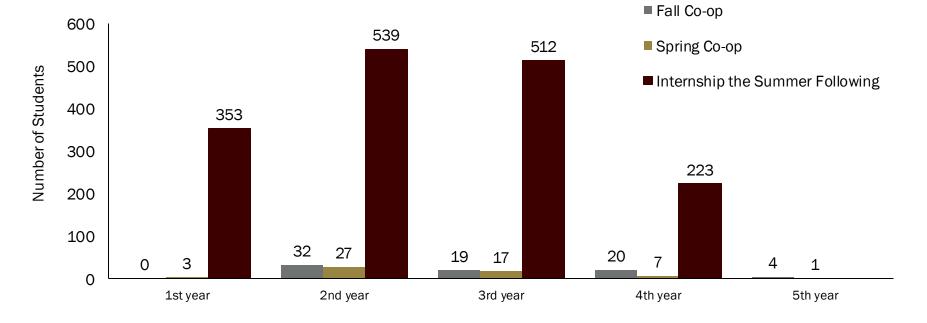
Have you completed an internship or co-op, or have you accepted an offer for Spring or Summer 2024?



# Asked to students who have completed an internship/ co-op Responses: 1190



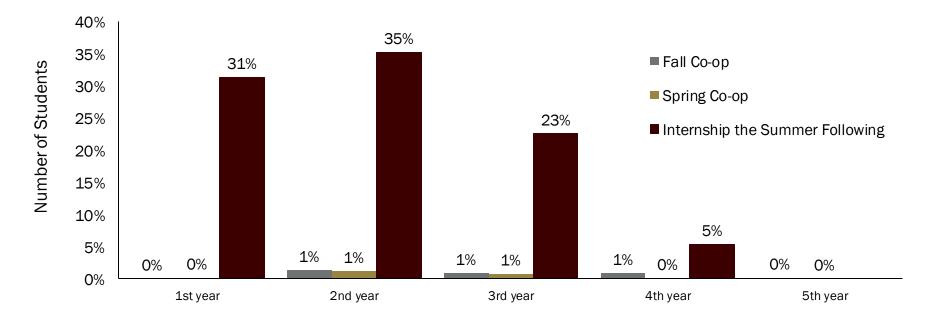
Classify your completed internship/ co-op experiences(s). (Select all that apply)



# Asked to students who have completed an internship/ co-op Responses: 1117



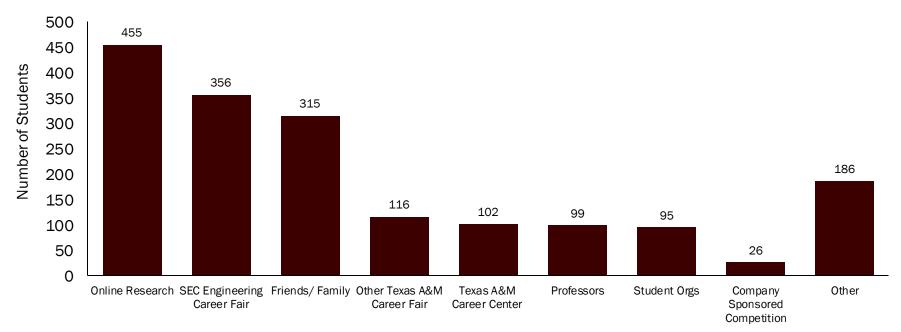
When was your first internship/co-op experience?



# Asked to students who have completed or have an upcoming internship/ co-op Responses: 1686



How did you obtain your internship/ co-op opportunity (select all that apply)?



## Students who selected other (please specify) Responses: 169



How did you obtain your internship/co-op opportunity (select all that apply)?

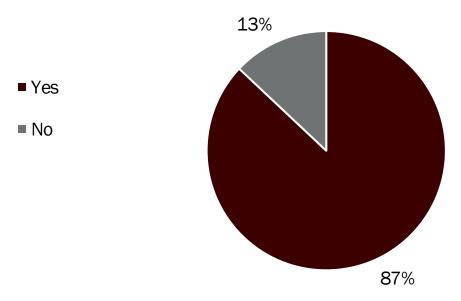
## Answers from Other (please specify)

- Master's program connections
- Networking/reaching out to people
- LinkedIn
- Mass applying online
- Emails from advisors or department with opportunities

# Students who have completed or have an upcoming internship/ co-op Responses: 586



Were you given sufficient time (2 weeks or more) to make a decision regarding the employment offer?



# Questions?

# Career Fair Questions

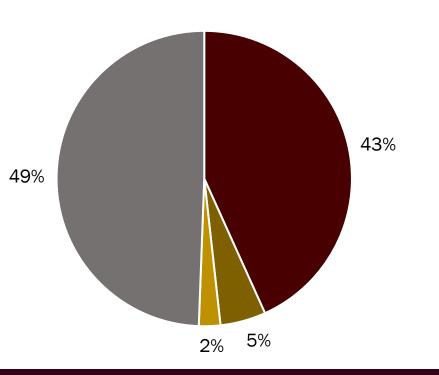
Asked to all students



### Did you attend the Fall 2023 SEC Engineering Career Fair?

- Yes, in-person only
- Yes, in-person and virtually
- Yes, virtual only

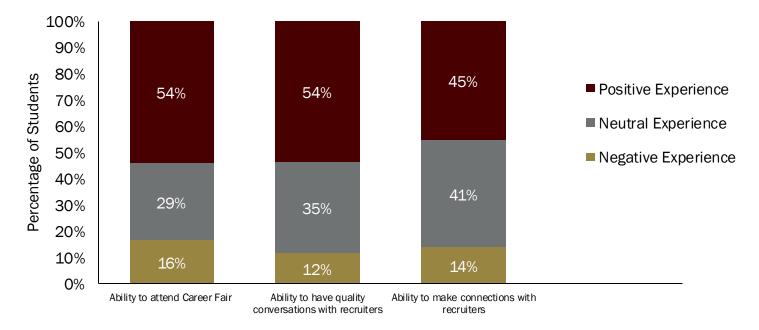
■ No



Asked to students who attended the in-person Career Fair Responses: 1847



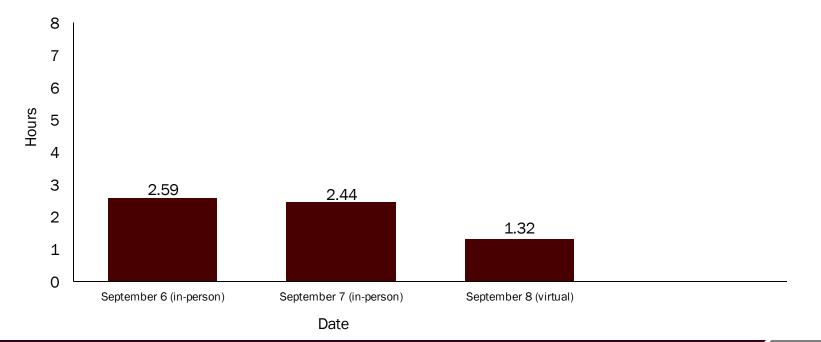
Please rate your experience of the following statements for the in-person Career Fair



Asked to students who attended the Career Fair Responses: 1937



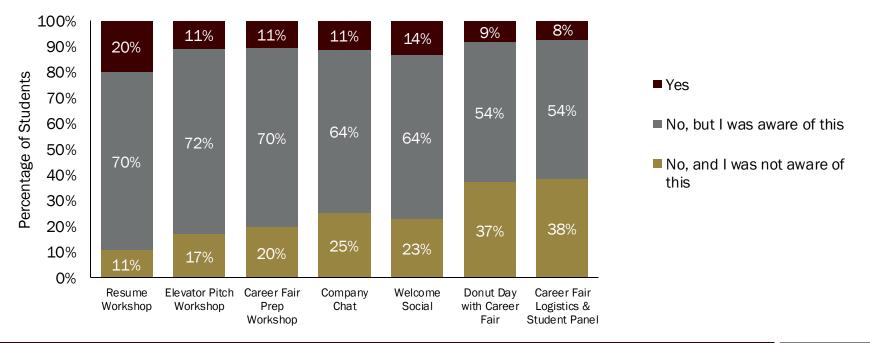
Please indicate the total number of hours you spent at each day of the Career Fair



Asked to students who attended the Career Fair Responses: 1937



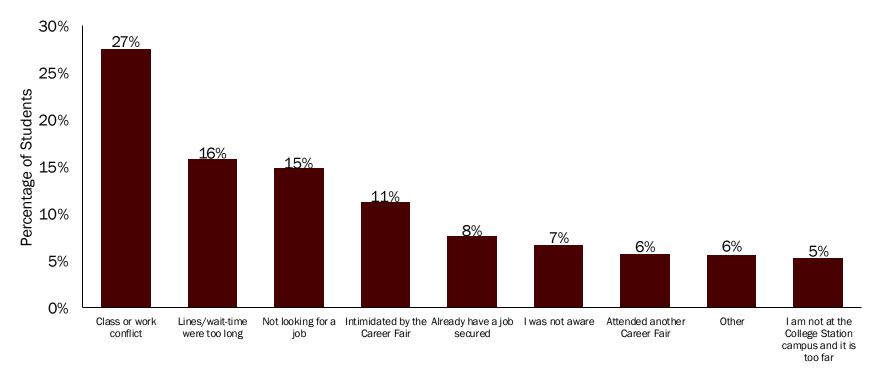
# Did you attend the following Fall 2023 SEC Pre-Career Fair Events?



Asked to students who did not attend the Career Fair Responses: 2953



### Why did you not attend the Career Fair?



Asked to students who did not attend the Career Fair Responses: 1809



### Why did you not attend the Career Fair? – Other (please specify)

#### Lack of experience within major

- "I'm a freshman and I am aware that they don't receive many opportunities and neither do most sophomore students"
- "As a freshman, I don't think I am qualified for anything yet"
- Companies present did not match field of study/graduate classification
- "Most companies are geared towards undergraduates and US citizens."
- "Seldom opportunities for BMEN"

#### Past experiences did not meet expectations

- "My general experience for the career fair, which I have attended at least four times, is that you wait in line for a recruiter to tell you to apply online..."
- "Talking to a representative only to have them say "okay go apply online" really does not instill confidence that my time at the career fair was well spent"

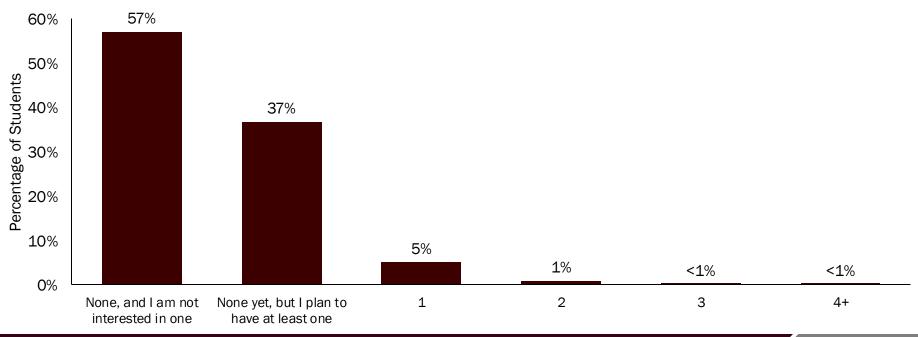
## Questions?

## International Experiences Questions

Asked to all students



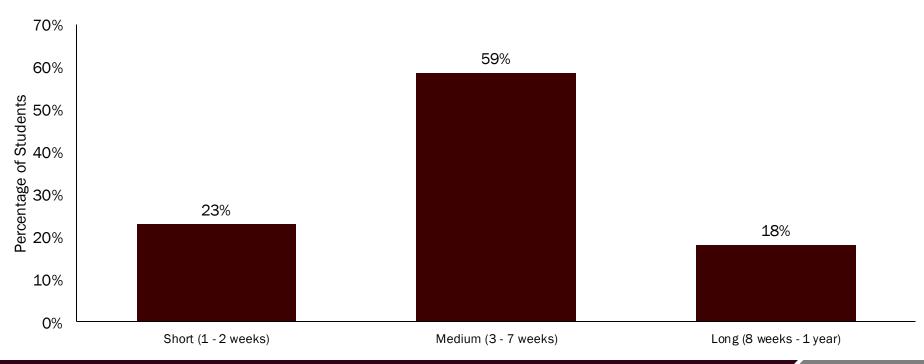
How many learning experiences have you had outside the U.S. led by the Halliburton Engineering Global Program?



#### Asked to students who completed 1+ international experience Responses: 229



What was the average length of your experience(s) abroad?

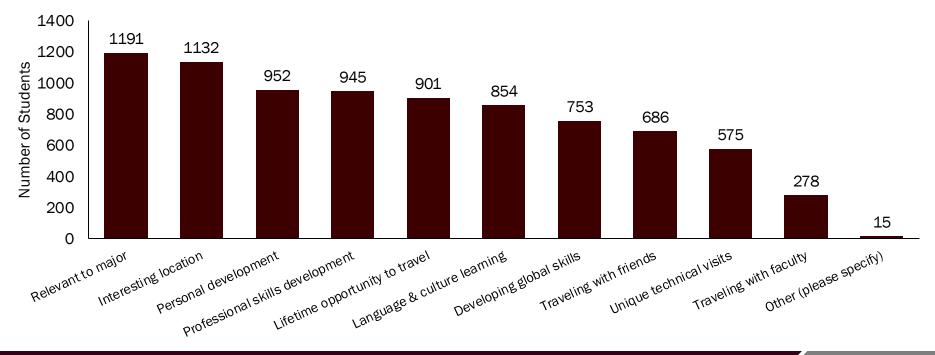


Fall 2023 Engineering Student Survey

## Asked to students who plan to complete an experience abroad Responses: 1417



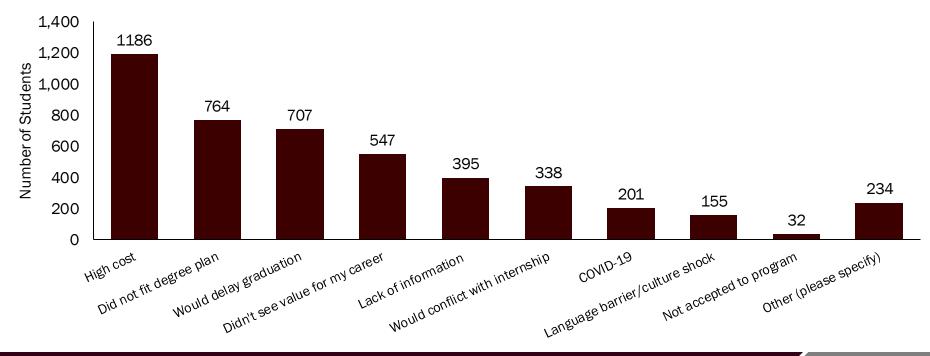
What aspects of an international learning experience would make you want to participate in it? (select all that apply)



## Asked to students not interested in an experience abroad Responses: 2183



Why did you choose not to participate in international learning experience(s)? (select all that apply)



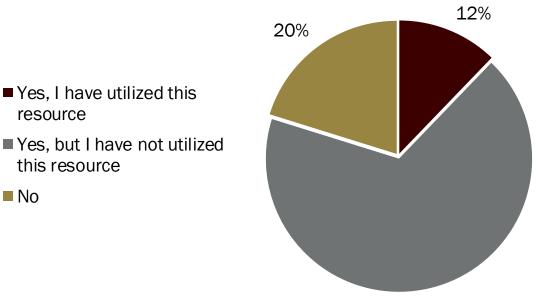
## Questions?

## Mental Health Questions

Asked to all students

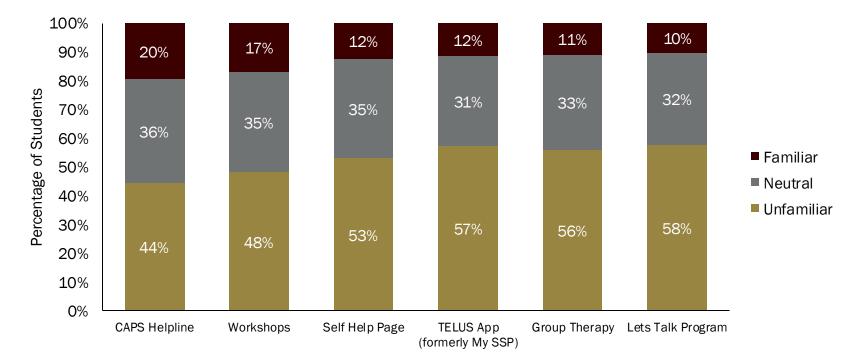


Have you heard about CAPS/UHS within the College of Engineering?





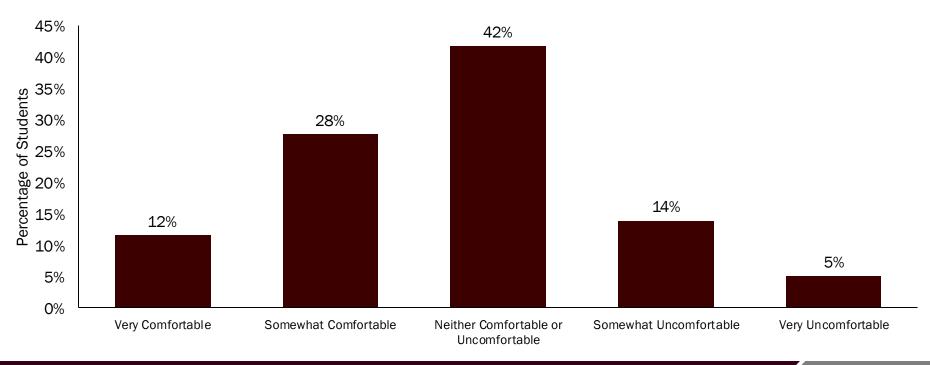
#### How familiar are you with the following CAPS/UHS resources?



#### Asked to students who had not utilized CAPS/UHS resources Responses: 3362



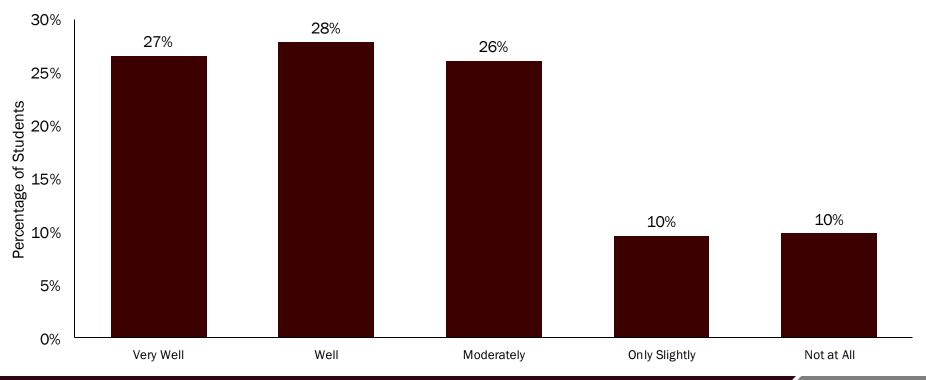
How comfortable would you feel using CAPS/UHS resource within the COE?



#### Asked to students who utilized CAPS/UHS resources Responses: 460



How well did CAPS/UHS meet your mental health needs?





Please share any suggestions or feedback you may have for the COE in regards to student mental health awareness or CAPS/UHS resources.

#### Increased Advertising for Services and Location

- "Marketing could be improved since I wasn't aware of this resource."
- "Honestly, I do not know where the CAPS resource is physically located in Zach." <u>Capacity Concerns</u>
- "Last year I tried to use it but they did not have the capacity for another student."
- "Hire more counselors/resources. There is a wait time most often of 2 weeks." <u>Anonymity Concerns</u>
- "Booking an appointment with a counselor without anonymity scared me off."
- "Sometimes it is hard to seek help. Making more anonymous opportunities to express that you need help could benefit students who are afraid."

## Questions?

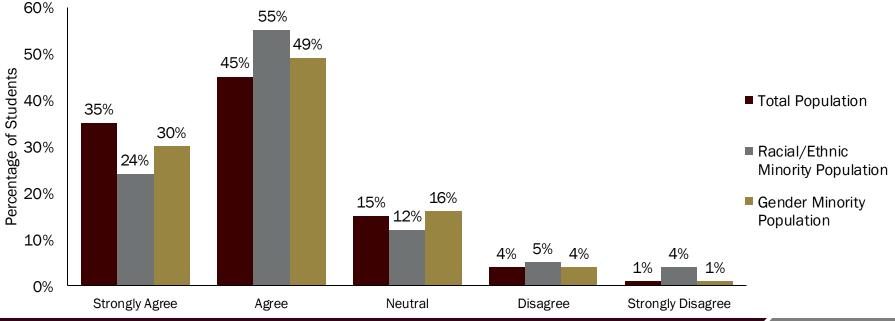
## Community & Belonging Questions

Asked to all students



94

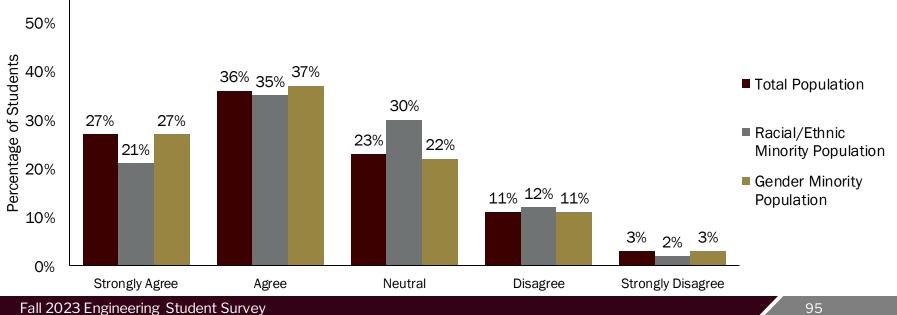
Please rate your agreement with the following statements. – I feel welcome in the College of Engineering.



Fall 2023 Engineering Student Survey

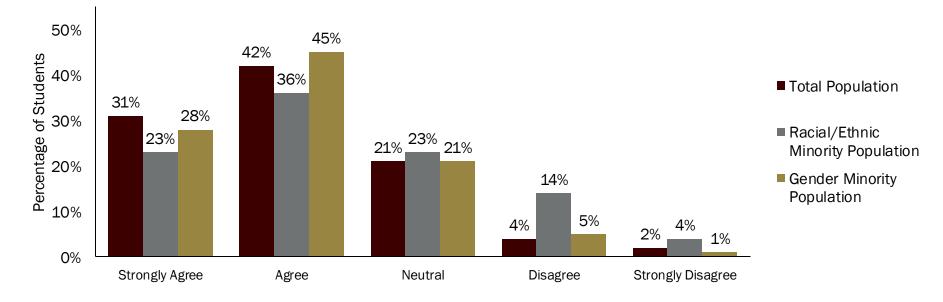


Please rate your agreement with the following statements. – I am meeting as many people and making as many friends as I want in the College of Engineering.



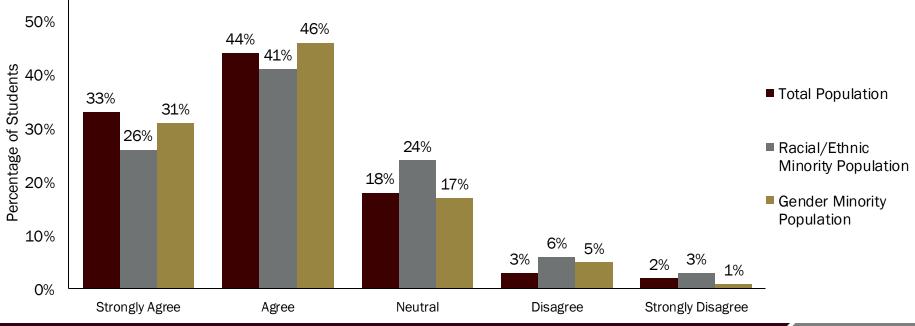


Please rate your agreement with the following statements. – The College of Engineering promotes a diverse engineering student body.



ENGINEERING

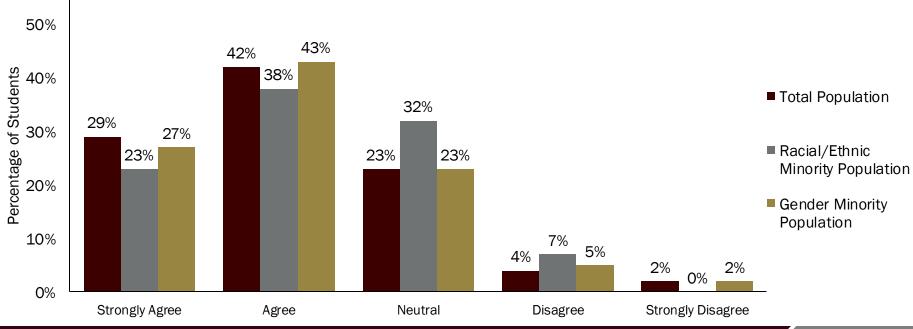
Please rate your agreement with the following statements. – The College of Engineering values diversity by having a diverse engineering faculty.



Fall 2023 Engineering Student Survey

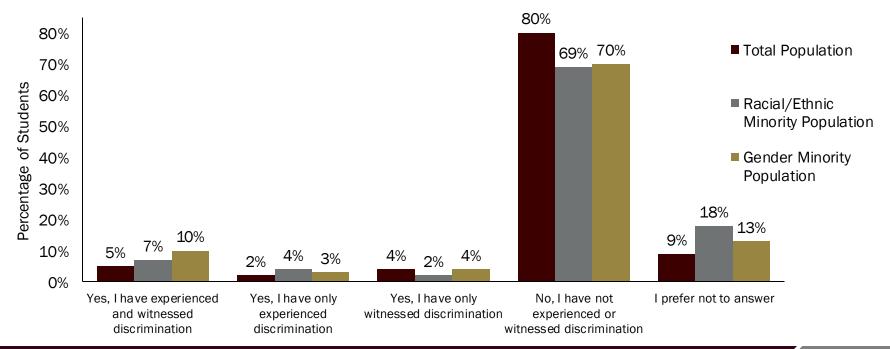


Please rate your agreement with the following statements. – The College of Engineering values diversity of thought.





Have you experienced or witnessed discrimination within the College of Engineering?

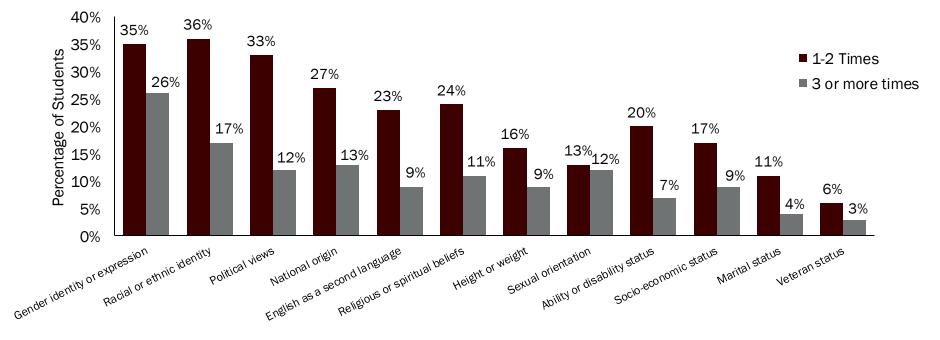


Fall 2023 Engineering Student Survey

#### Asked to students who have experienced discrimination Responses: 290



Over the past year, how often have you experienced discriminatory events within the College of Engineering because of your... (select all that apply)



#### Asked to students who have experienced discrimination Responses: 143



What type of discrimination have you experienced? (open ended)

Microaggressions & biased statements

- "Biased statements about women in engineering."
- "Regular microaggressions and biased statements from peers and professors."

#### Gender and religious discrimination

- "Biased towards male peers"
- "Unwelcoming looks and degrading comments based on my physical appearance."

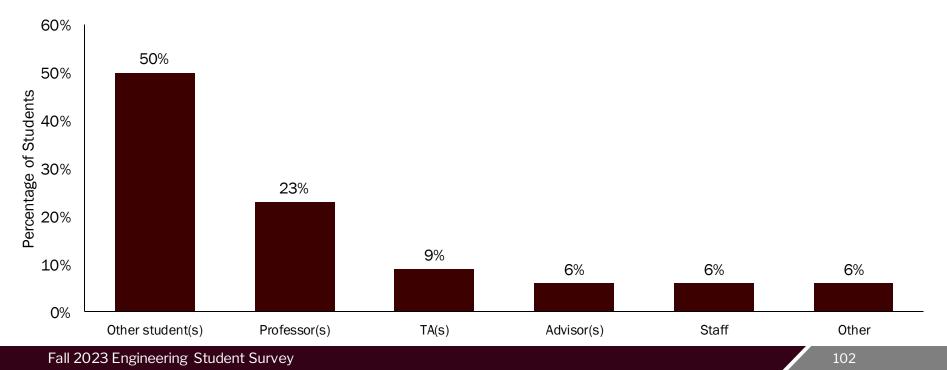
Discrimination against disabled individuals

• "Department would not accommodate my disabilities"

## Asked to students who have experienced discrimination Responses: 401



Which of the following groups have discriminated against you? (select all that apply)



#### Asked to students who have experienced discrimination Responses: 113



How can the College of Engineering take steps to prevent instances of discrimination from happening in the future? (open ended)

#### Improve access to education about cultural diversity

- "Promote diversity and correct cultural information among students and staff."
- "Have cultural and diversity awareness courses and workshops."
- "Have a DEI program."

#### Improve upon resources for disabled students

- "More online resources for students with disabilities and more awareness from professors and TA's."
- "Allow disabled students to be competitive and have a chance at the major they want."

#### Listen to students

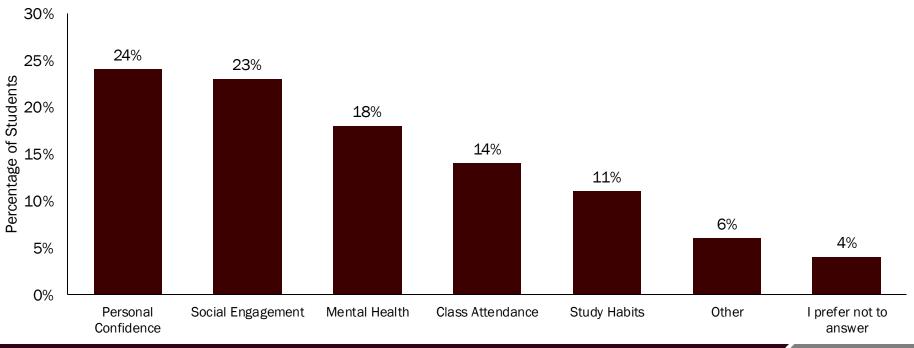
• "Listen to student complaints and reviews on professors."

#### Asked to students who have experienced discrimination Responses: 594



104

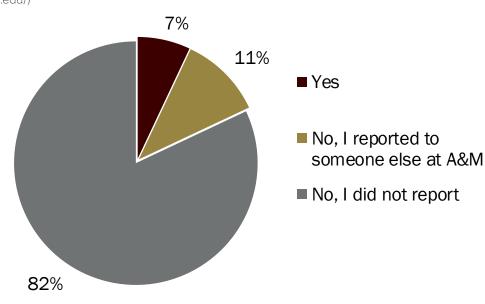
In what areas of your life has your experience of discrimination affected you? *(select all that apply)* 



## Asked to students who have experienced or witnessed discrimination Responses: 445



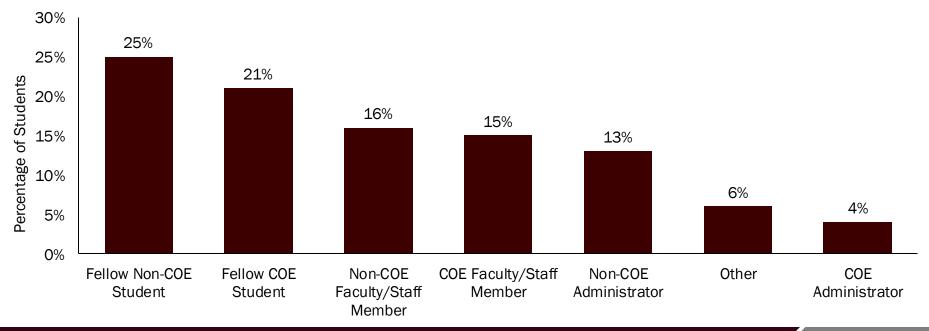
If you experienced or witnessed any discrimination within the College of Engineering, did you report the incident through an official A&M resource?



Asked to students who reported to 'Someone else at A&M' Responses: 67



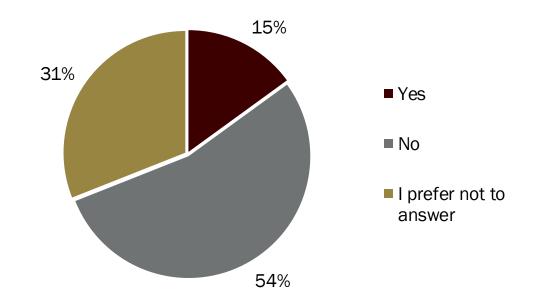
Who did you tell? (select all that apply)



Asked to students who receive disability services Responses:118



If you are receiving disability services, have you experienced discrimination from an engineering faculty member because of this?





How can the College of Engineering increase your sense of belonging? *(open ended)* 

#### More events

- "More engineering events, whether that be social or professional to help foster a sense of community in the College of Engineering."
- "More events to get to know people from other departments."
- "Cultural events to build a stronger community."
- **Diversity and inclusion**
- "Increase support for minorities."
- "Add a diversity and inclusion module into 102/216."

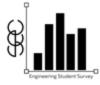
More organizations

• "Provide more organizations to gain experience in and meet people, especially for freshmen."

## Questions?



### 2023-2024 Legislation Committee



### Co-Chairs

Kendra Schmieg '24 Isabel Wabnitz '26

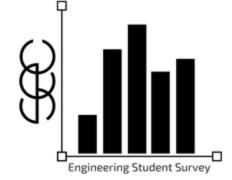
### Members

Cole Cieslewicz Trevor Gard Julia Hoke Jake Isakson John Lehan Avery Miller Katie Pettigrew



Student Engineers' Council

### ENGINEERING STUDENT SURVEY



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