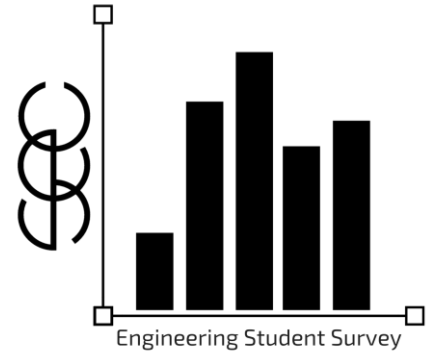
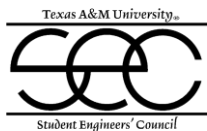


ENGINEERING STUDENT SURVEY

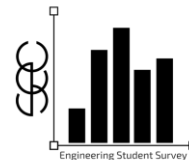


Results Presentation

February 7, 2019



Survey Executive Summary

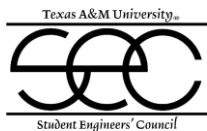


Open-Ended Questions

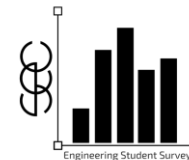
Questions labeled “Open-Ended” allowed for open-ended student responses. These responses were read by members of SEC’s Legislation committee and sorted into representative categories.

Productive Feedback

This survey features questions that focus on students’ positive and negative feedback. This is intended as helpful, productive information highlighting effectiveness of certain areas and potential areas of improvement.



Survey Response Summary



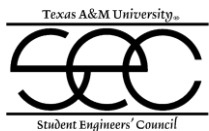
40-Day Survey Period

Nov. 2, 2018 – Dec. 12, 2018

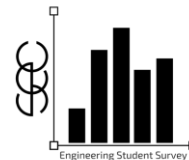
6696 Total Responses

≈34% of Engineering Student Body

(79% of responses from Undergraduate Students, and 21% from Graduate Students)



Survey Vetting



Working With TAMU's Public Policy Research Institute

This year we were able to start the process of working with a specialized third party to vet the survey. The aim of this is to help us make it as unbiased and effective as possible.

“Each year, PPRI administers 100,000 phone, 300,000 mail, and 10,000 in-person survey interviews.”

Source: <https://ppri.tamu.edu/about-ppri/>

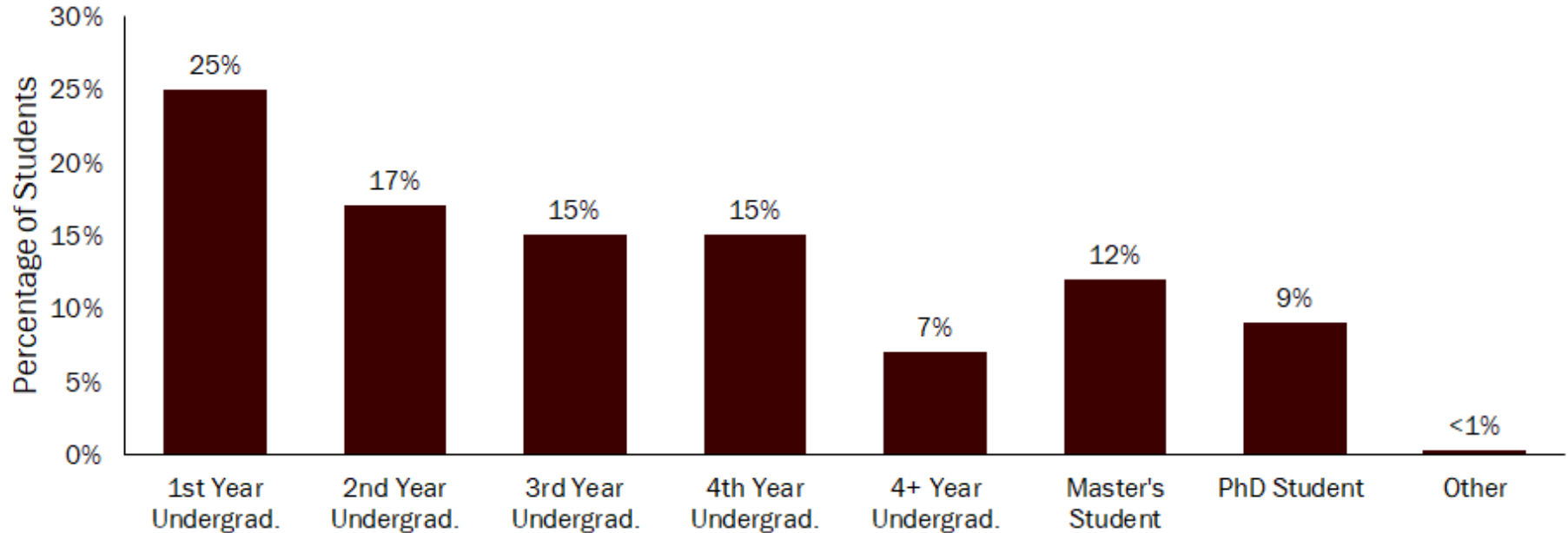
Demographic Questions

Asked to all students

Responses: 6396



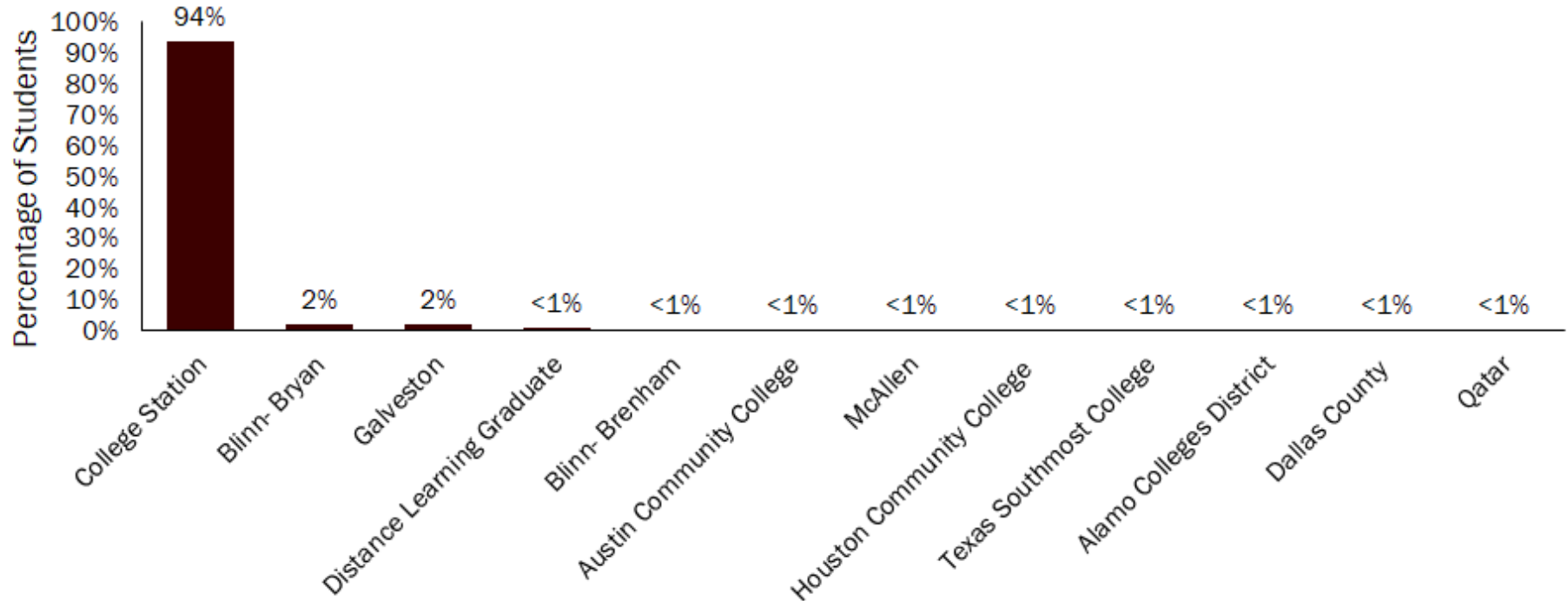
Which of the following most accurately represents your class year at Texas A&M University?



Responses: 6396



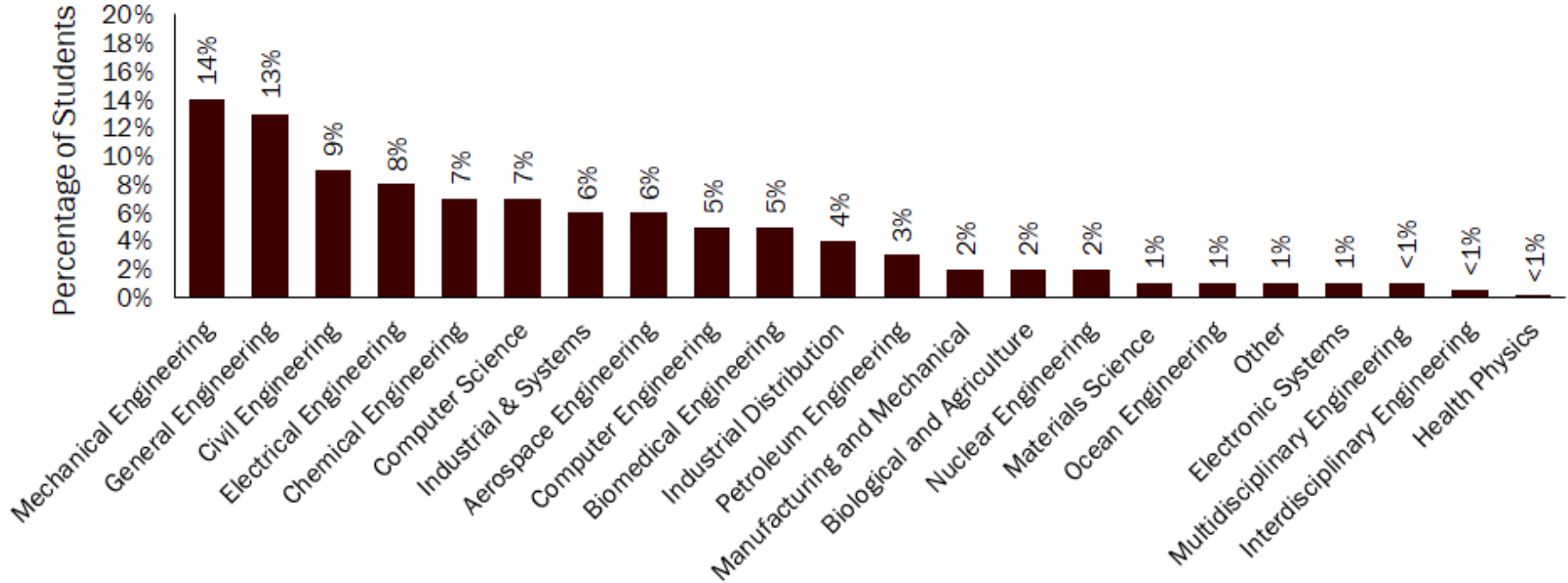
At which campus do you take the majority of your courses?



Responses: 6394



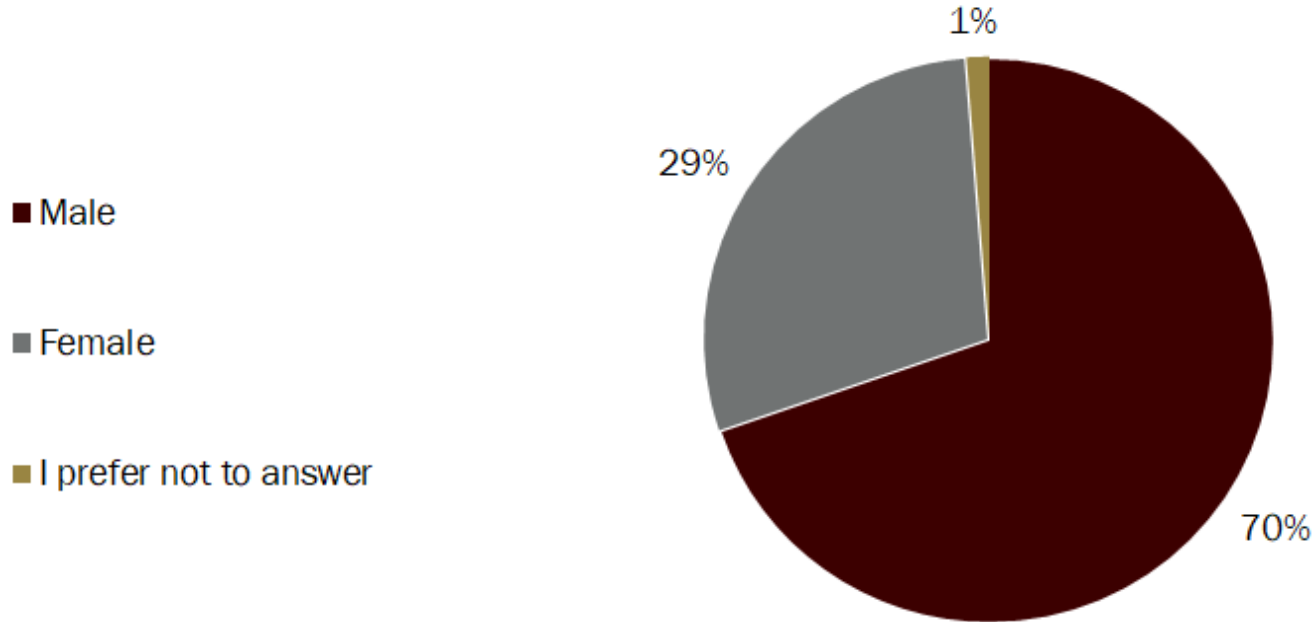
What is your major?



Responses: 6289



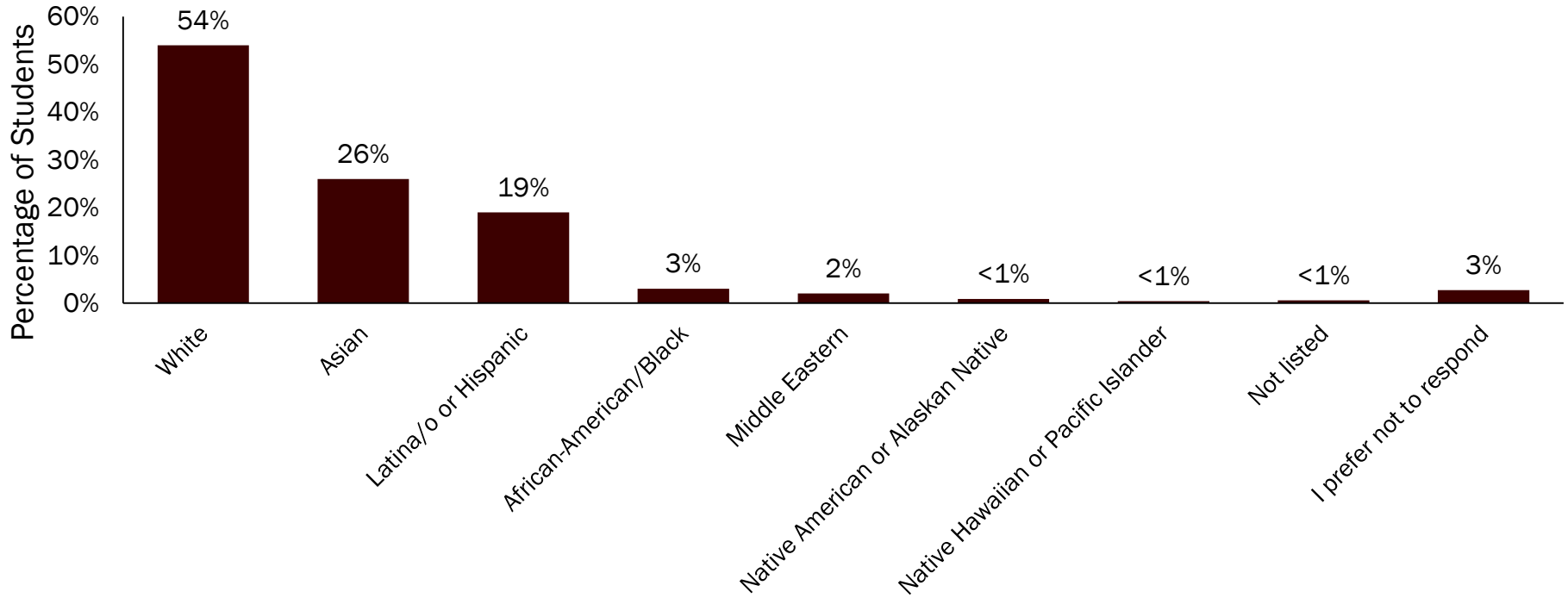
Sex/Gender



Responses: 6289



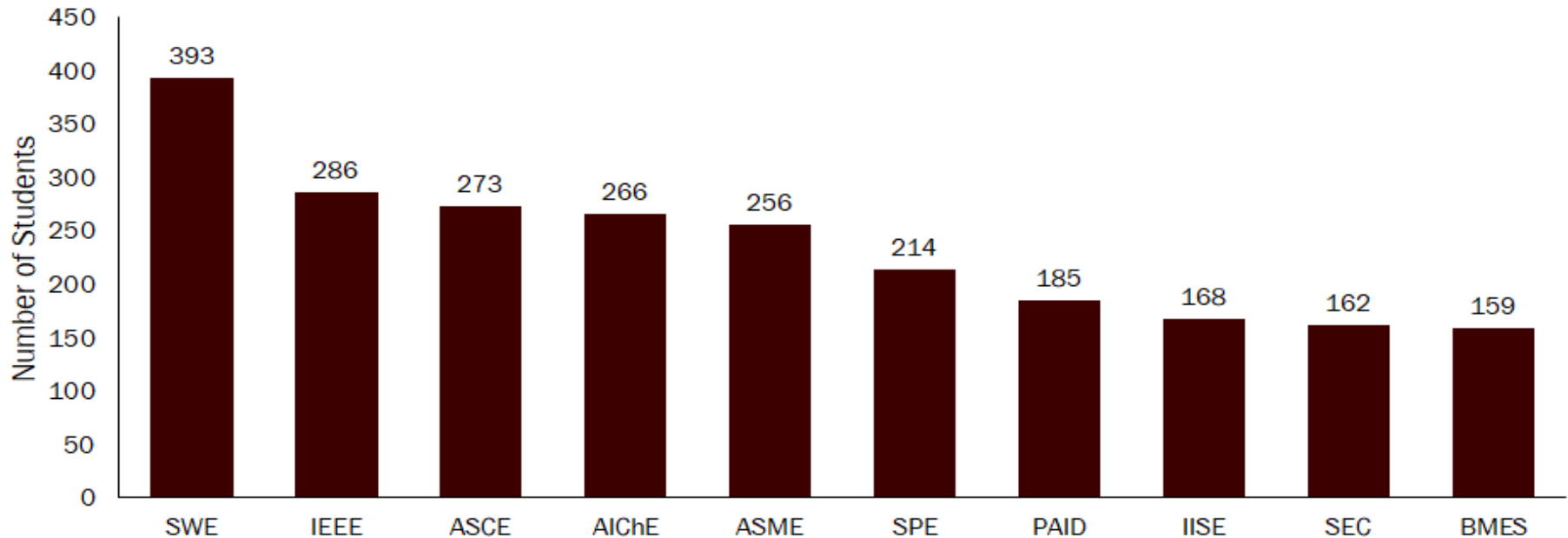
Race/Ethnic Identification (Select all that apply):



Responses: 6394



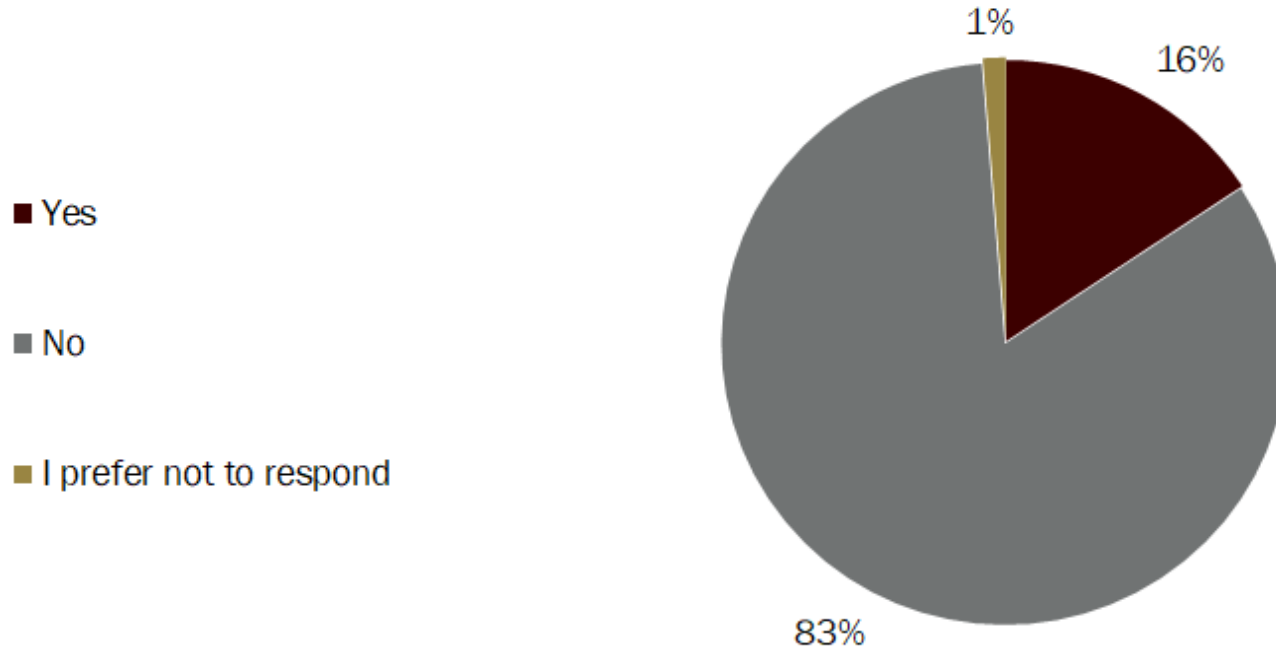
What Engineering Organizations and/or societies are you currently involved in? (Select all that apply)



Responses: 6289



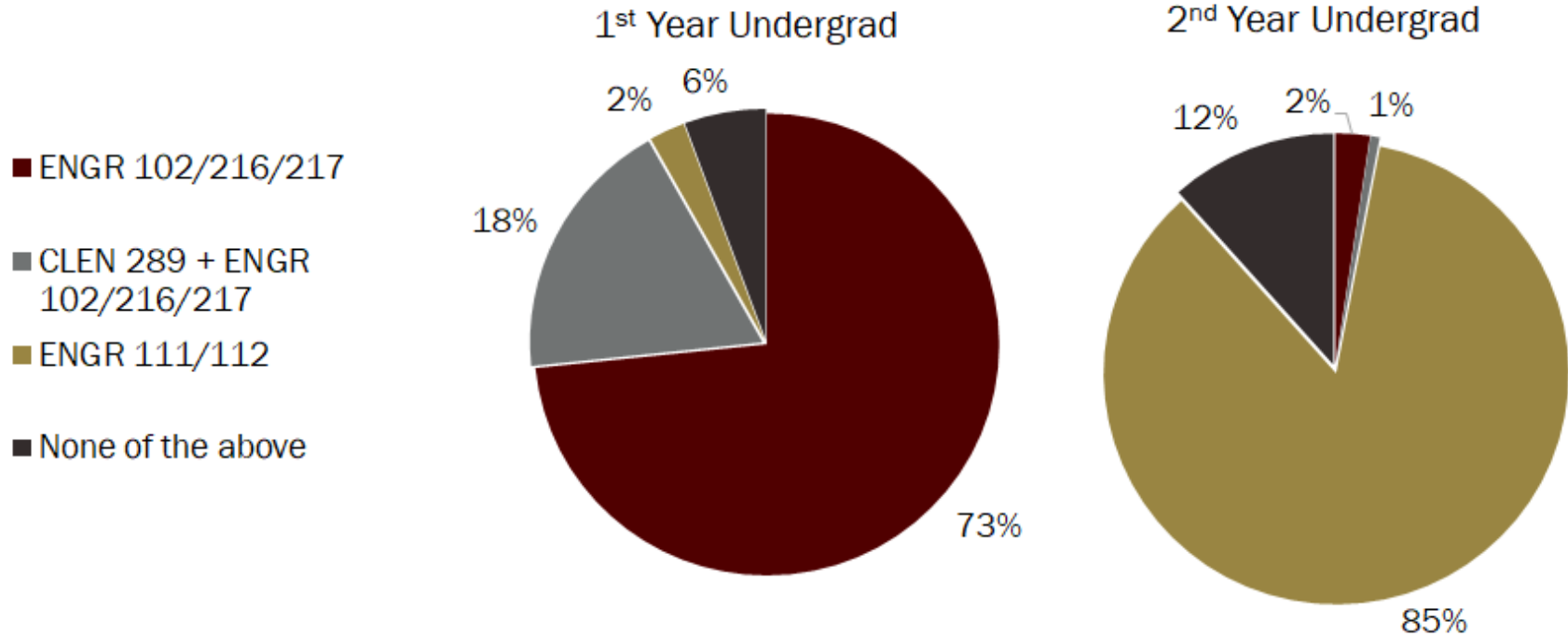
Are you the first member of your family to go to college?



Asked to only 1st and 2nd Year Undergraduate Students
Responses: 2655

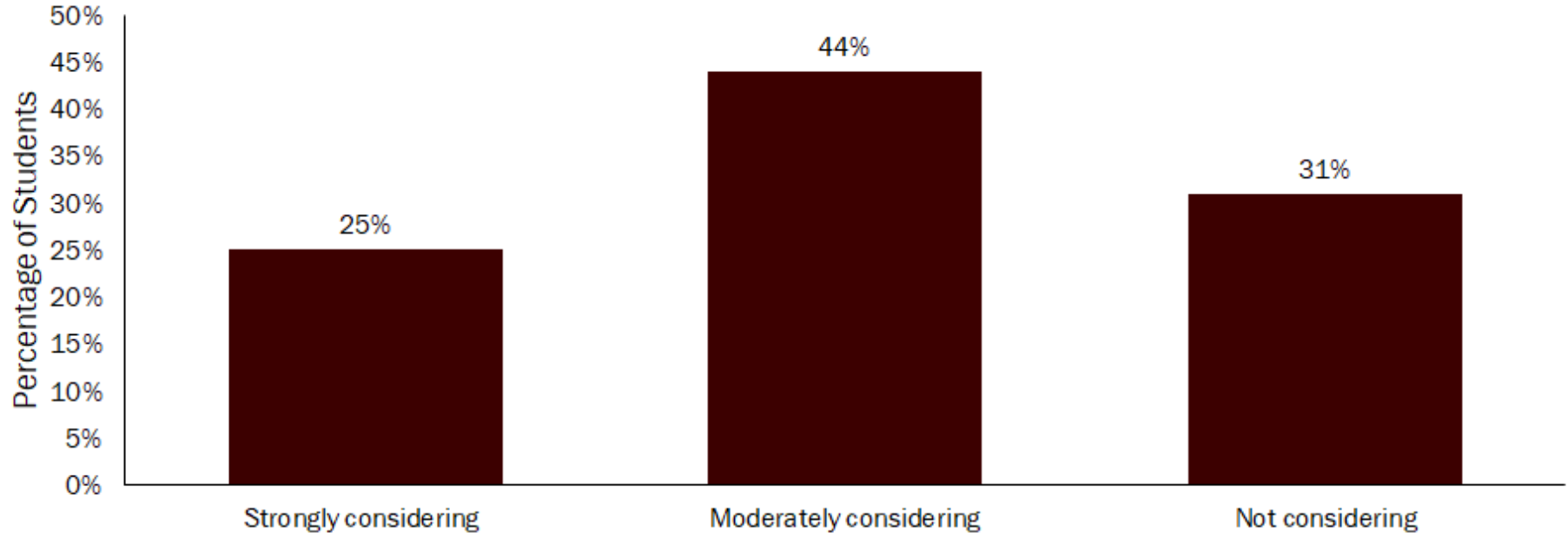


Which introductory courses are you enrolled in/have you taken?





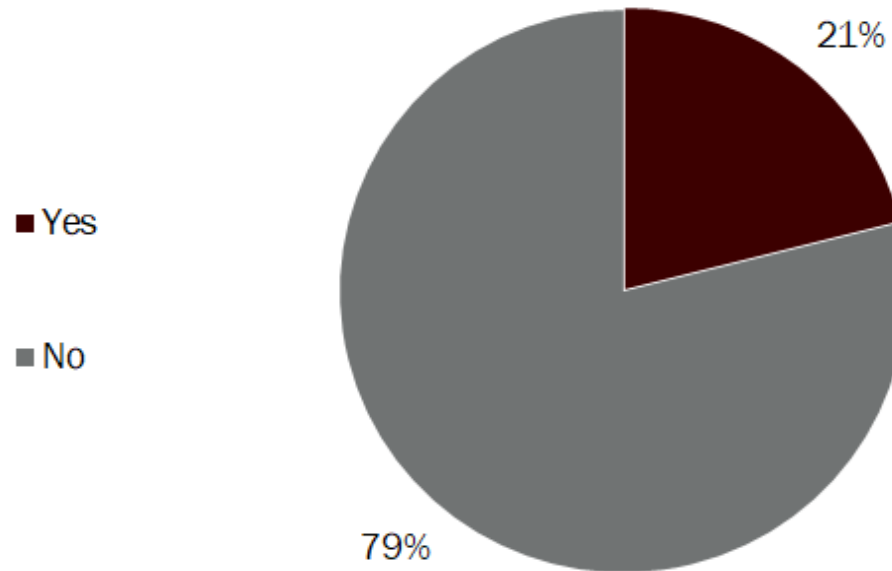
To what extent are you considering graduate school?



Responses: 6292



Are you graduating in December 2018 or May 2019?



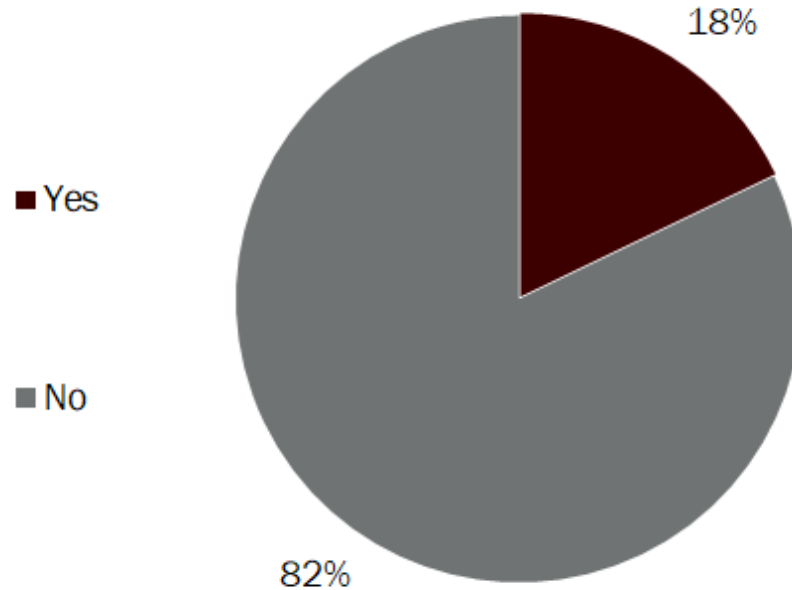
International Experiences

Asked to all students

Responses: 5397



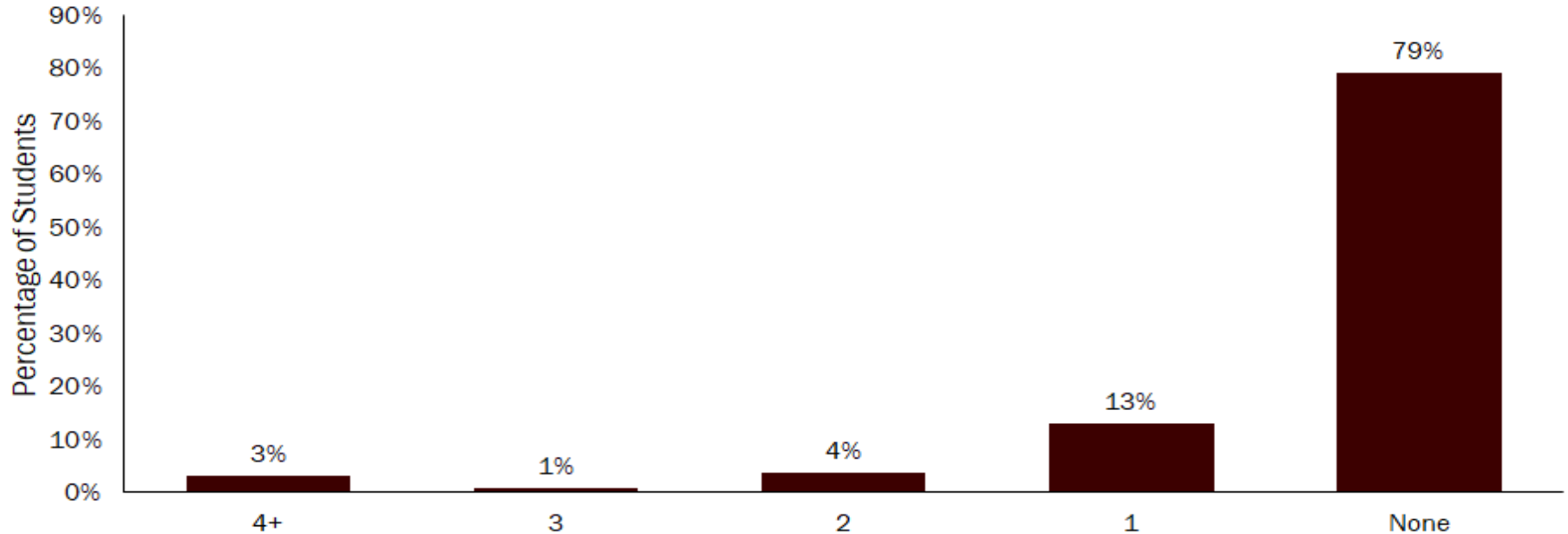
Are you an international student?





Responses: 5397

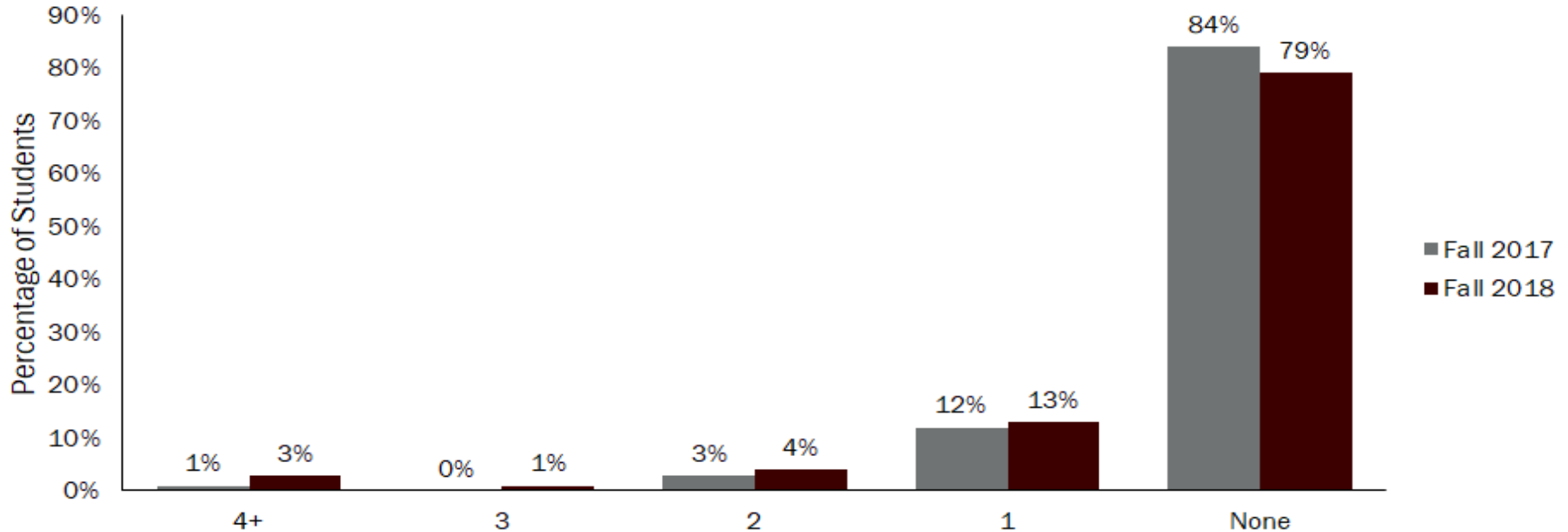
How many learning experiences have you had outside the U.S. while in college?





Responses: 5397

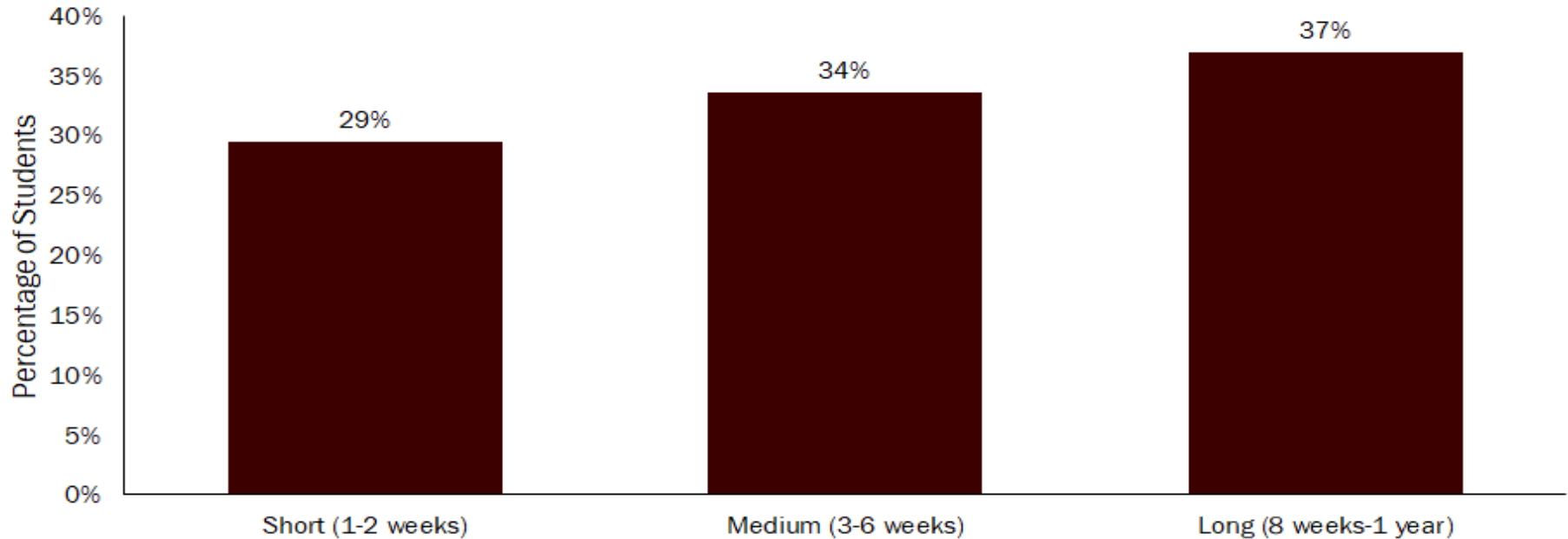
How many learning experiences have you had outside the U.S. while in college?



Asked to those with international learning experiences
Responses: 1082



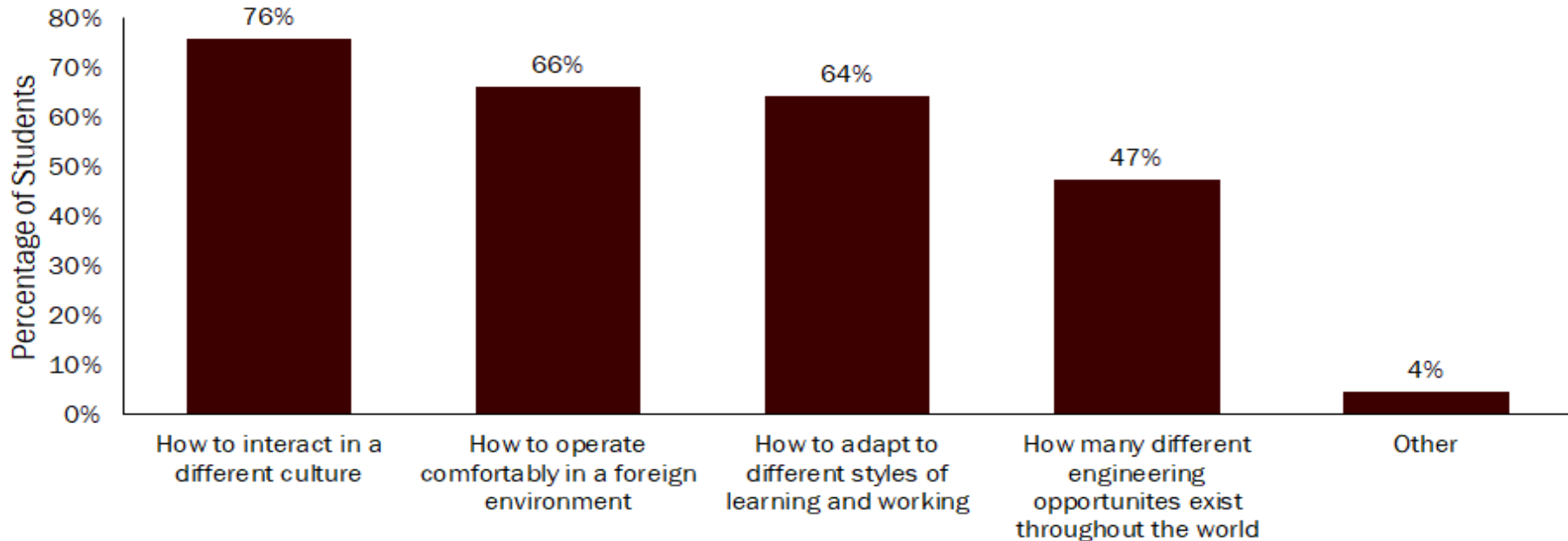
What was the length of your learning experience abroad?



Asked to those with international learning experiences
Responses: 1082



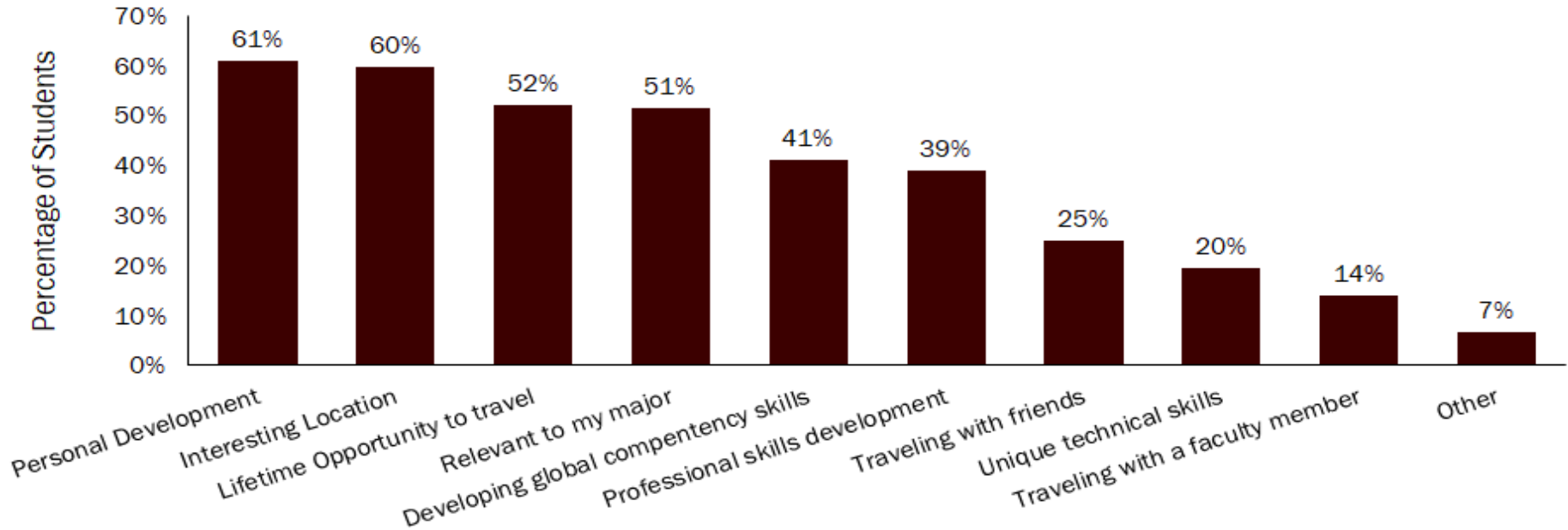
What did you learn during your international learning experience and how will it make you a better engineer? (Select all that apply)



Asked to those with international learning experiences
Responses: 1082



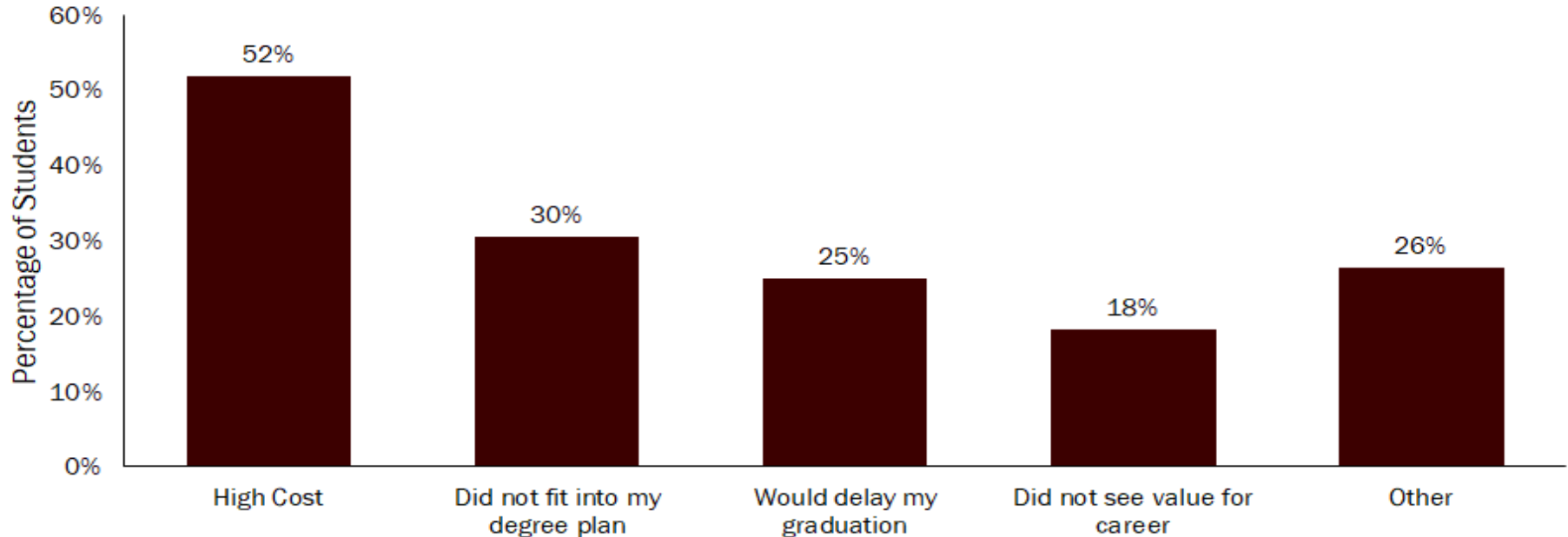
Why did you choose to participate in international learning experience(s)? (Select all that apply)



Asked to those without international learning experiences
Responses: 4243

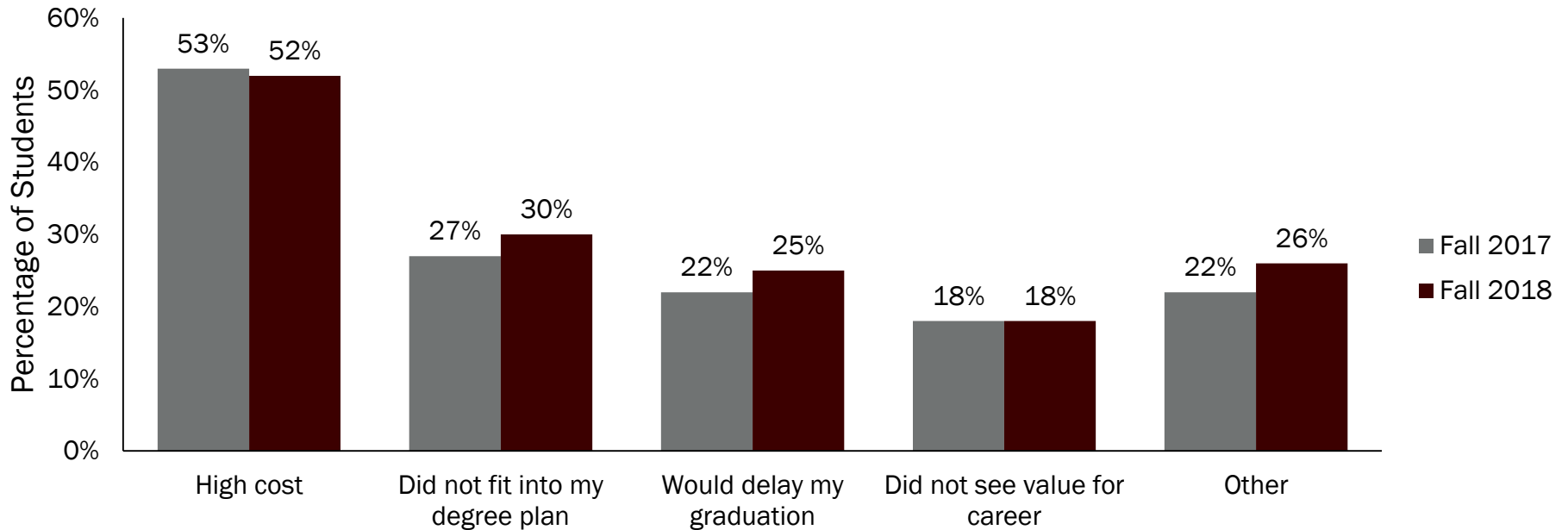


Why did you choose not to participate in international learning experience(s)? (Select all that apply)



Asked to those without international learning experiences
Responses: 4243

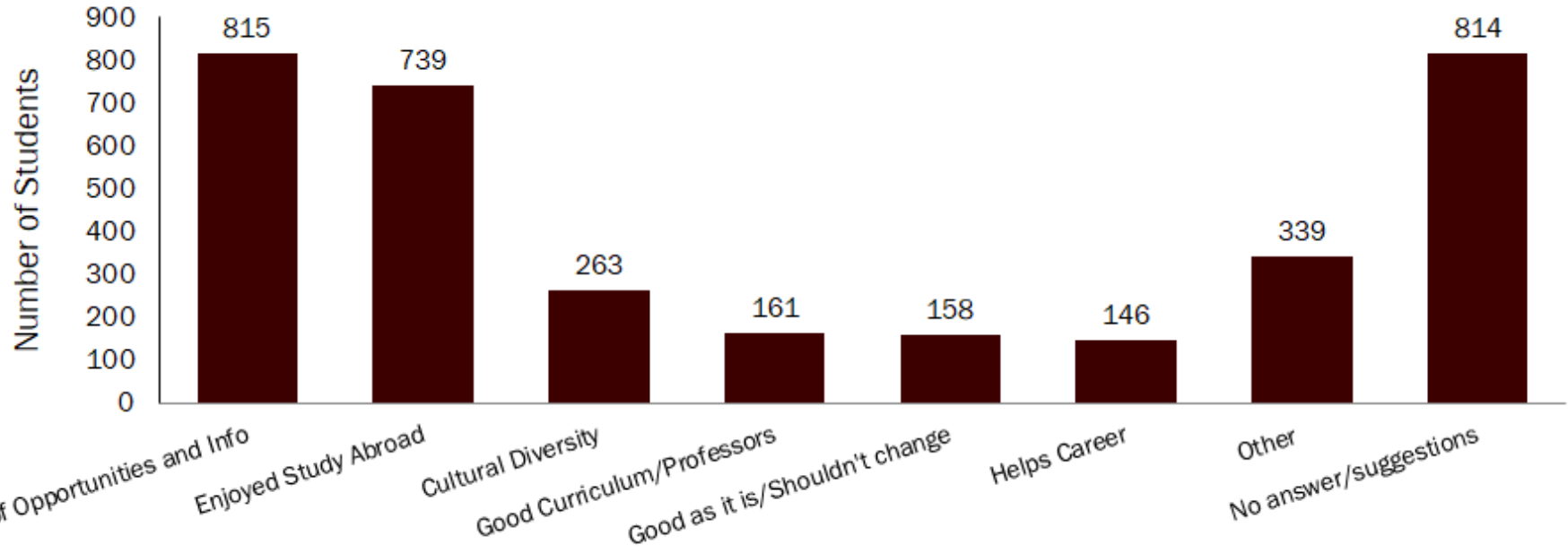
Why did you choose not to participate in international learning experience(s)? (Select all that apply)



Responses: 3435



Open-Ended: What do you think are some of the strengths of the College of Engineering's approach to access to international experiences?





Open-Ended: What do you think are some of the strengths of the College of Engineering's approach to access to international experiences?

Lots of Opportunities and Information Available

- “There are so many opportunities that they advertise for engineers to get international experience over the summers.”

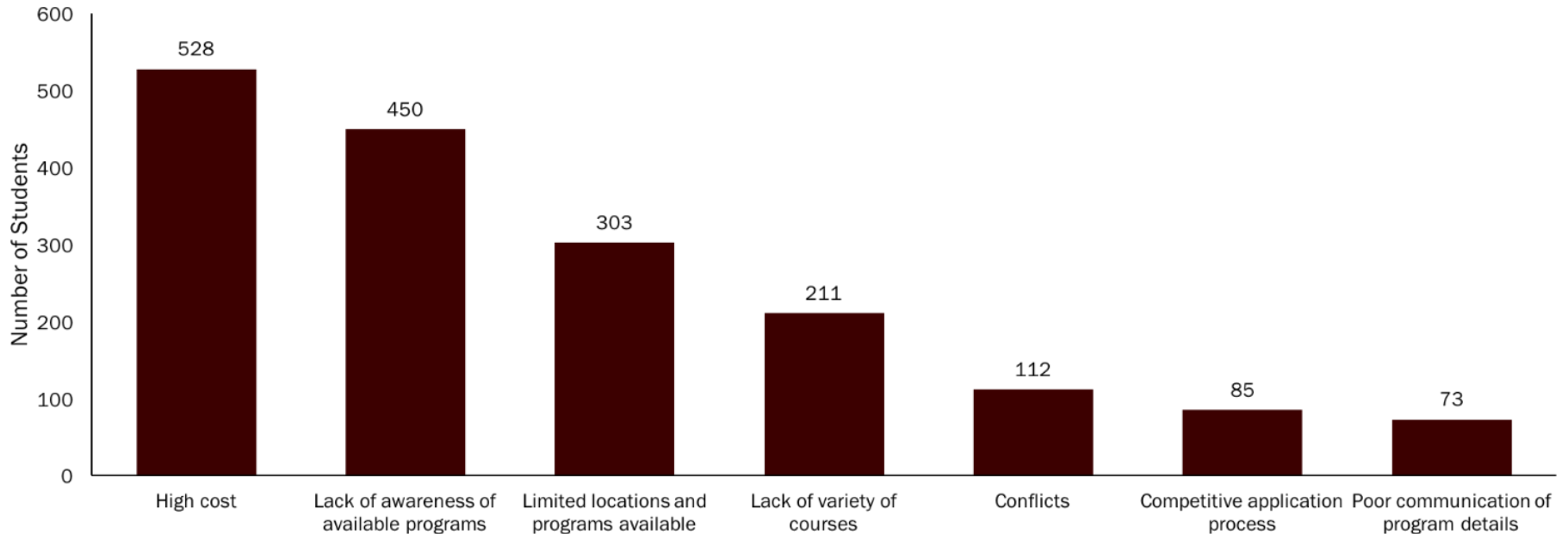
Enjoyed Study Abroad

- “The study abroad programs provide us opportunities to enjoy new and diverse experiences around the world.”



Responses: 3309

Open-Ended: What do you think are some of the weaknesses of the College of Engineering's approach to access of international experience?





Open-Ended: What do you think are some of the weaknesses of the College of Engineering's approach to access of International experience?

Programs Are Too Expensive

- “The price point will always be a detriment. Even at just flight cost these trips become out of budget for a lot of people. In many ways by casting a wider net in an attempt to get more students to go on international trips the quality of small, more affordable ones is lost. I can't speak to the finance situation but as the outreach to include more people on trips the finite resources probably thin out.”



Open-Ended: What do you think are some of the weaknesses of the College of Engineering's approach to access of International experience?

Conflicts

- “The more valuable international experiences are longer term, i.e. over the summer. This means that students are trading off taking an internship versus a study abroad, of which internships are generally more obviously beneficial career-wise. If more introductory courses were offered abroad, such as something that would fit after freshman or sophomore year, this would be less of a trade-off with a good internship since most companies don't hire many students that young”.

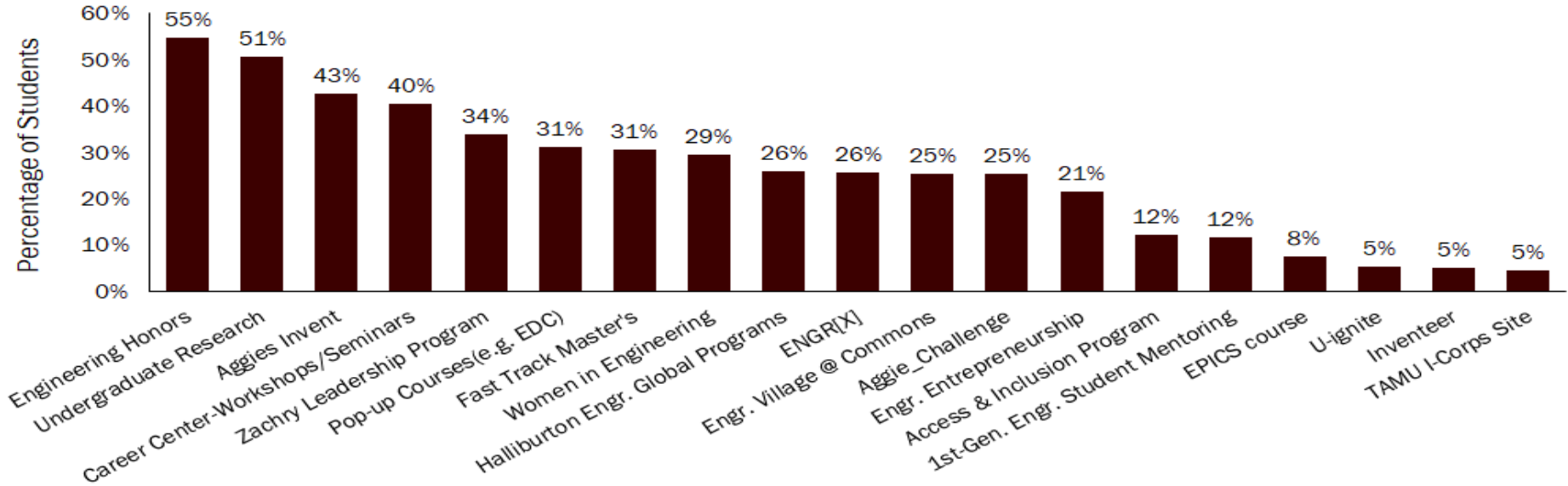
Academic Programs and High Impact Experiences

Asked to undergraduate students

Asked to undergraduate students
Responses: 3824



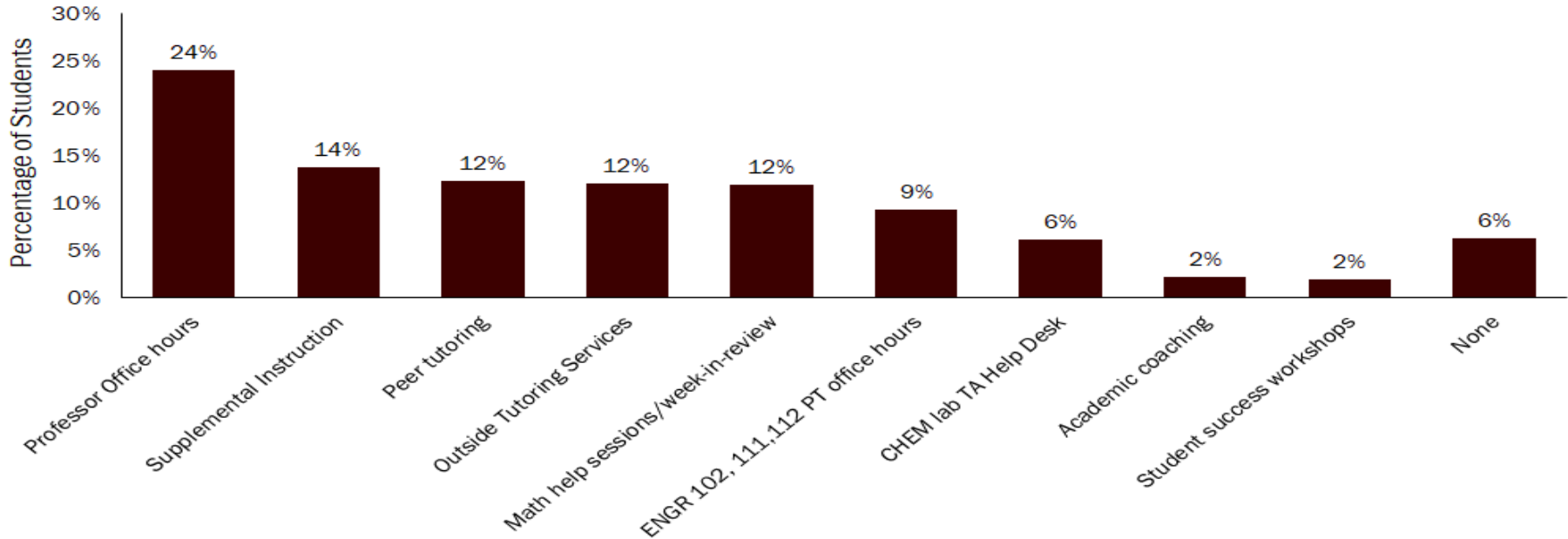
Do you have a detailed knowledge of the following Academic Enrichment Programs? (Select all that apply)



Asked to undergraduate students
Responses: 3824



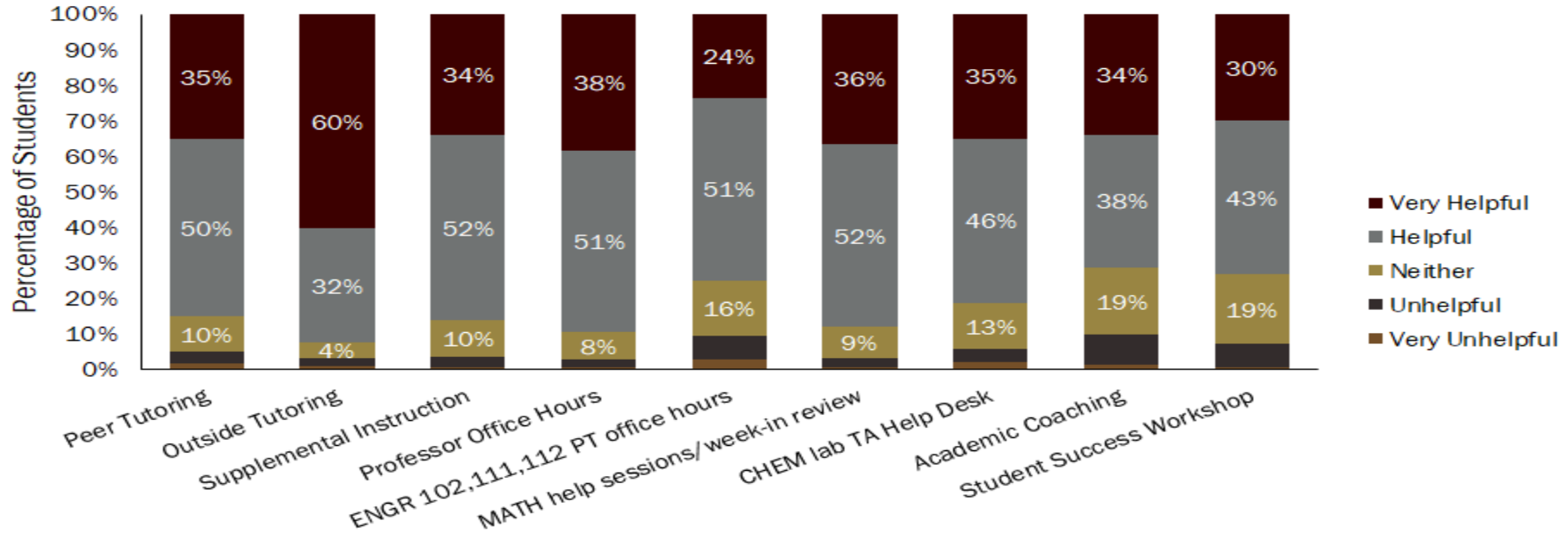
Select the following Academic Support Services that you have utilized. (Select all that apply)



Asked to undergraduate students
Responses: 3824

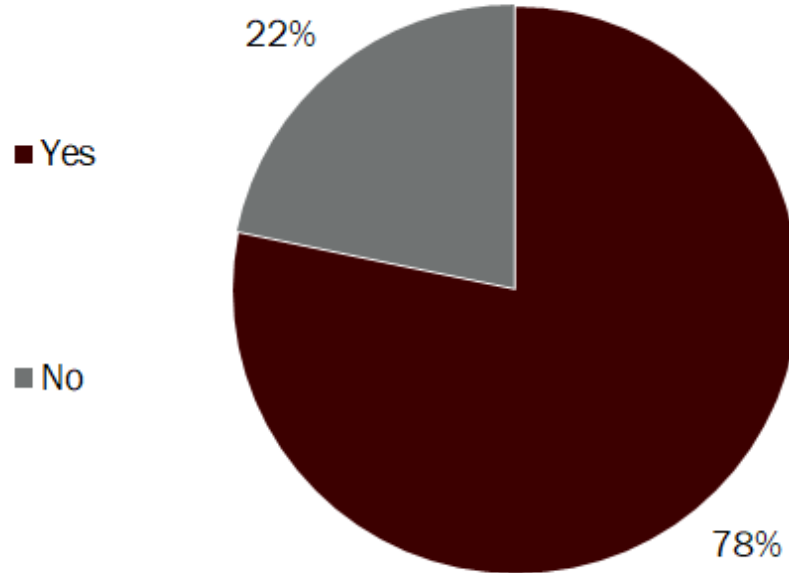


How helpful are the following Academic Support Programs in helping you succeed academically?



Asked to undergraduate students
Responses: 3807

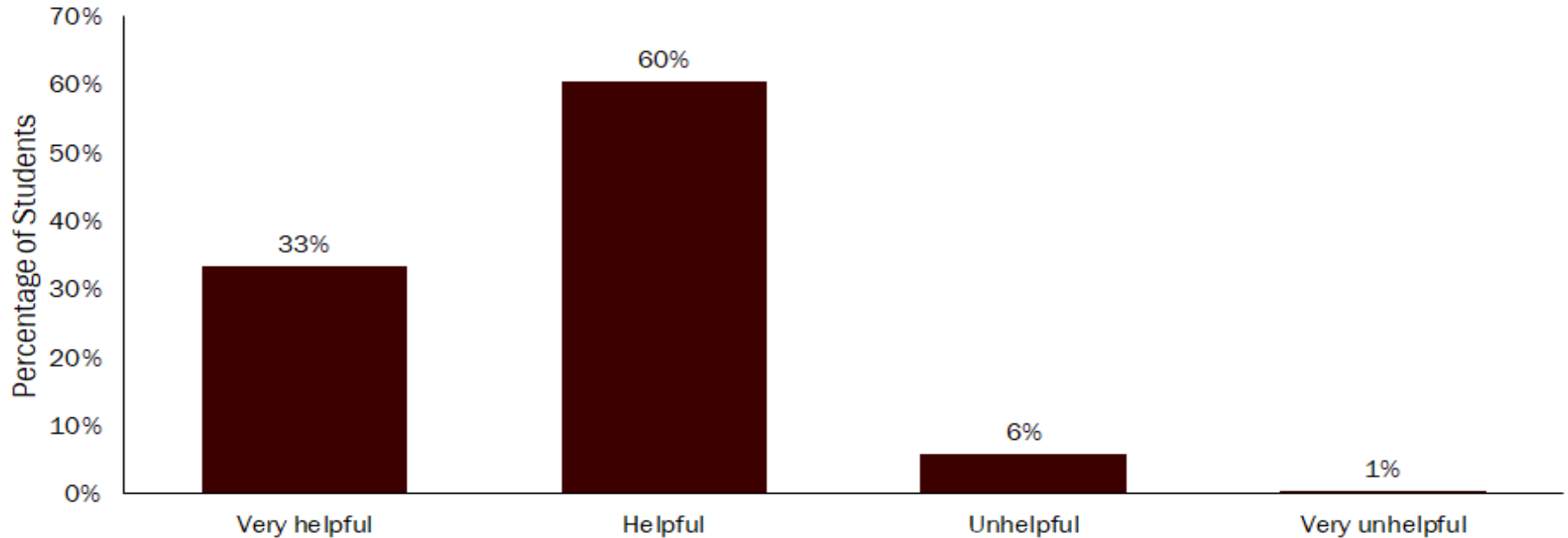
Have you gone to see any of your professors outside of class?



Asked to those who visited professors
Responses: 2972



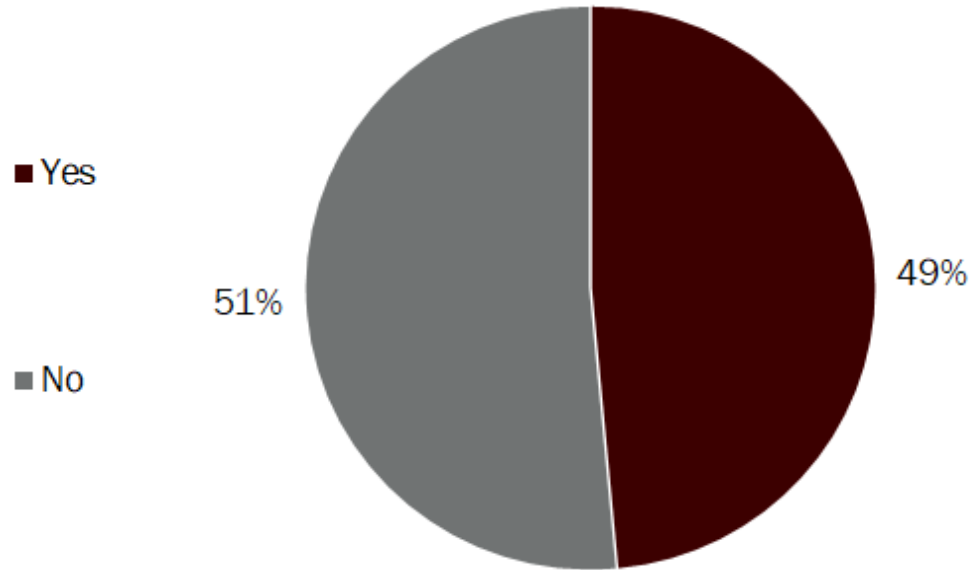
What was the average helpfulness of your visits with your professors?



Responses: 3801



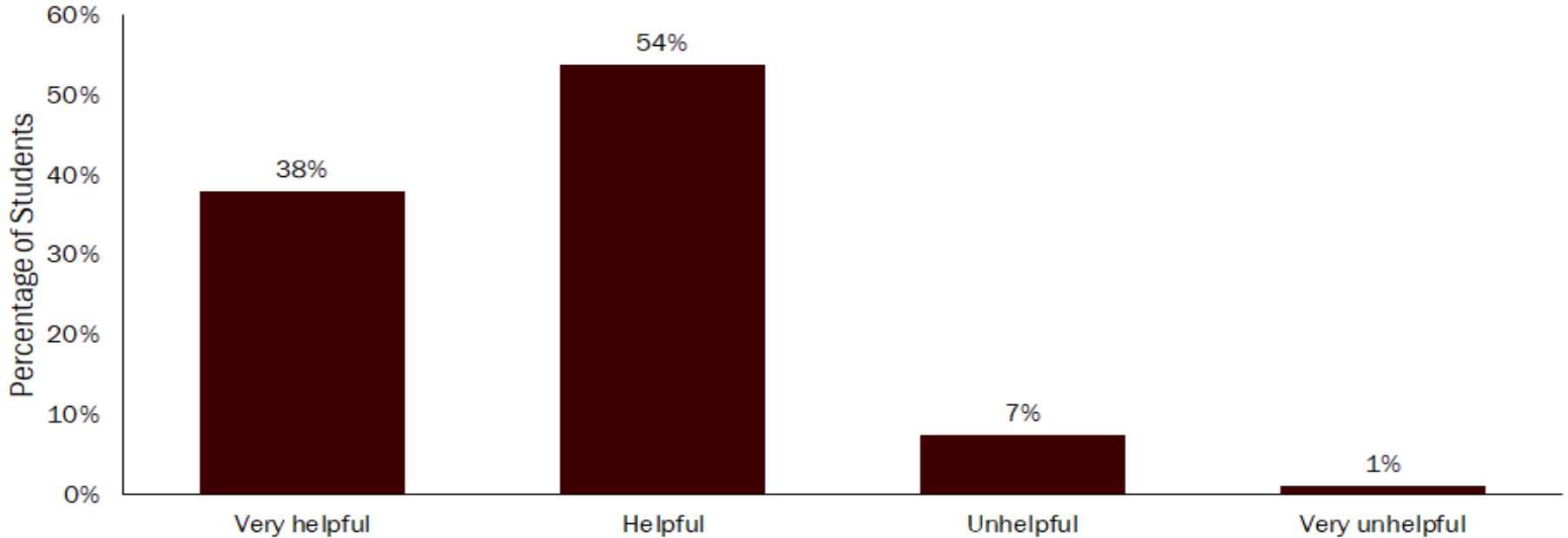
Have you gone to see any of your TAs outside of class?



Asked to those who had visited TAs
Responses: 1842

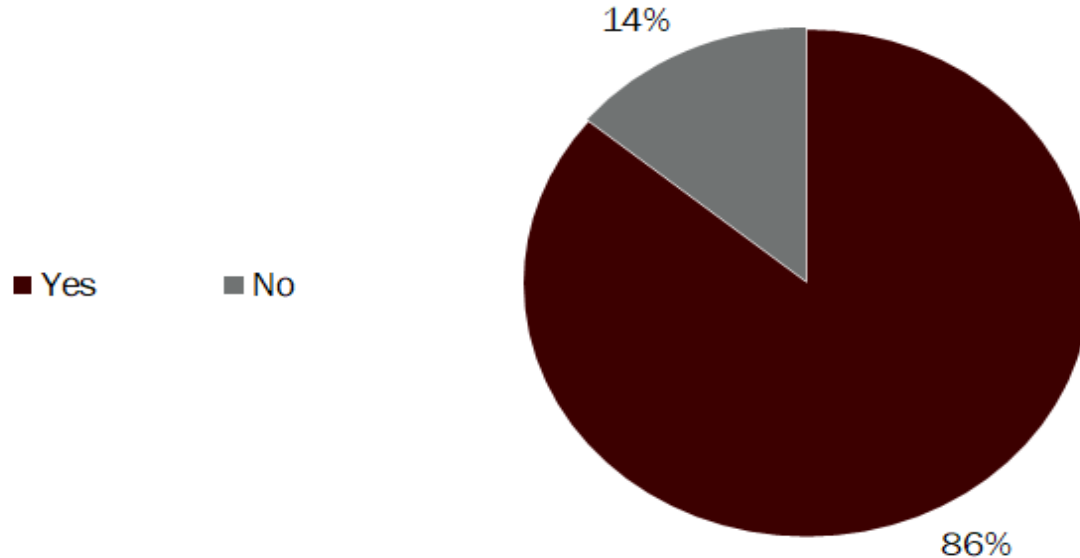


What was the average helpfulness of your visits with your TA?



Asked to all students
Responses: 4822

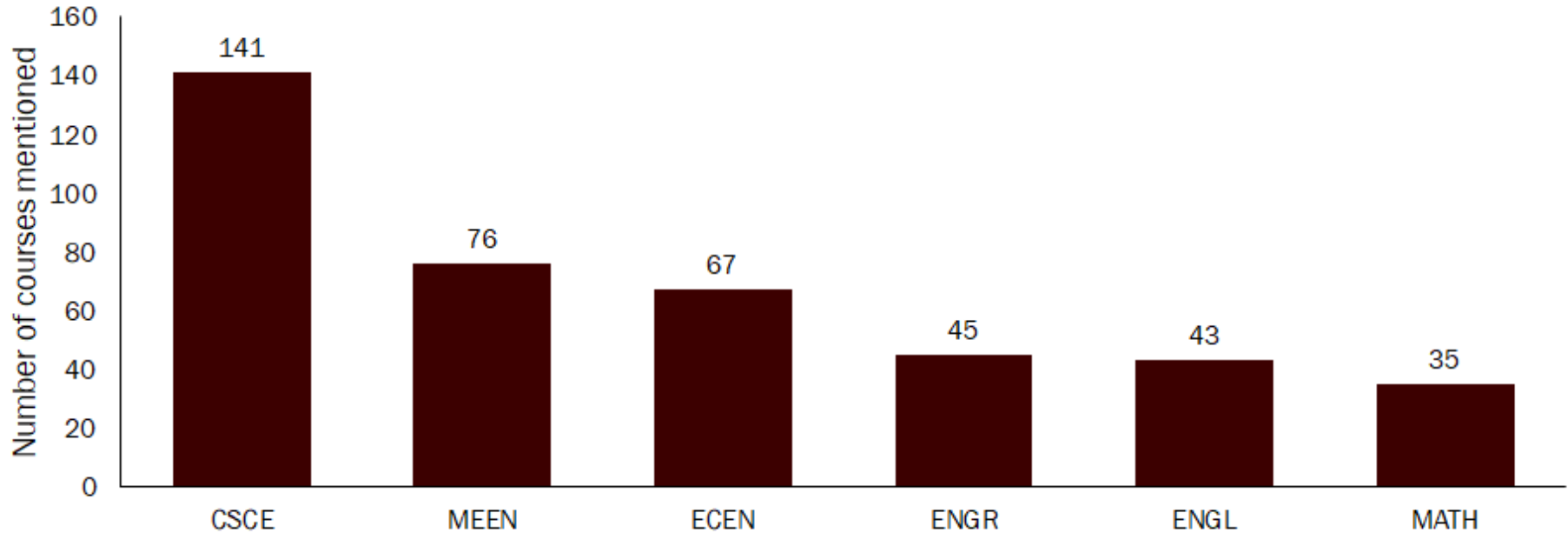
When you registered for Fall 2018, were you able to register for all of the courses you needed?



To the students who listed specific courses that they were unable to register for
Responses: 771



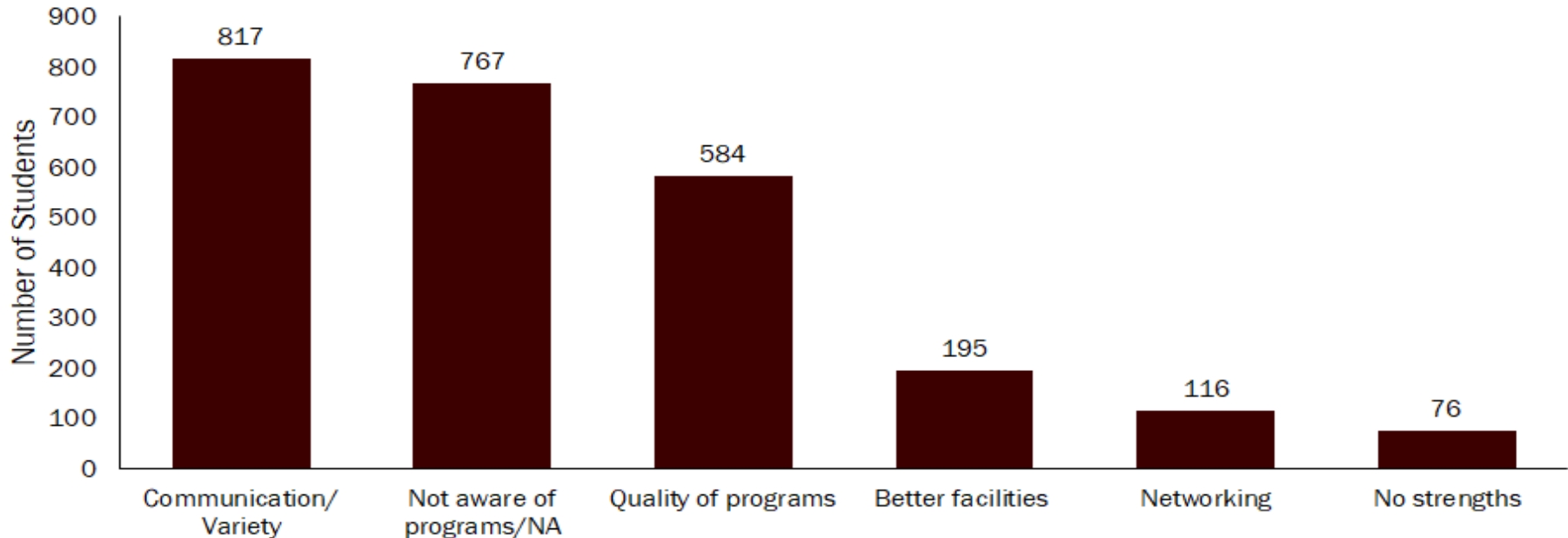
What courses were you unable to register for?



Responses: 2555



Open-Ended: What do you think are some of the strengths of the College of Engineering's approach to accessibility of academic programs and high-impact experiences?





Open-Ended: What do you think are some of the strengths of the College of Engineering's approach to accessibility of academic programs and high-impact experiences?

Quality of Experiences

- “Easy exposure to great life changing experiences. These experiences could be the difference to people choosing a certain career path.”

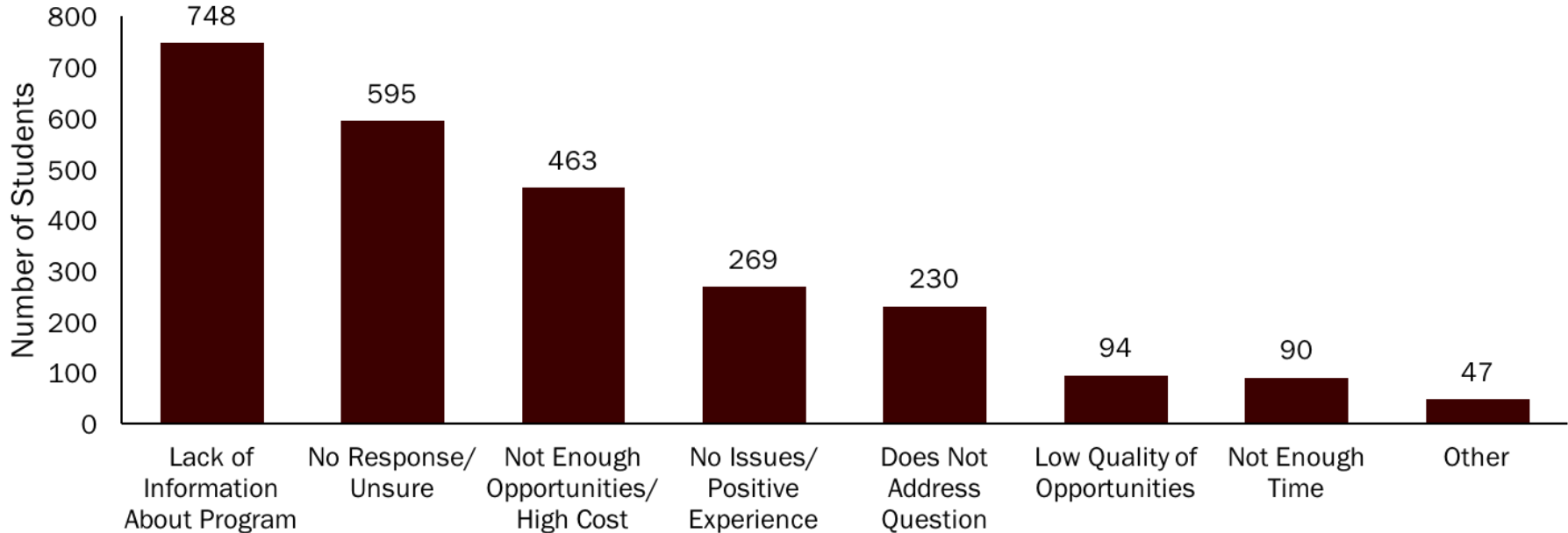
Variety of Opportunities

- “There are a lot of opportunities but they require the students to take the initiative on all these things. I think that it is good to teach students that they must take the initiative”

Responses: 2536



Open-Ended: What do you think are some of the weaknesses of the College of Engineering's approach to accessibility of academic programs and high-impact experiences?





Open-Ended: What do you think are some of the weaknesses of the College of Engineering's approach to accessibility of academic programs and high-impact experiences?

Lack of Information About Program

- “Need a more central way to view available experiences.”
- “As a freshman there is very little exposure to any of the high impact experiences and how to participate in them.”

Not Enough Opportunities/High Cost

- “Most high impact experiences are tailored to the most common engineering majors, such as Mechanical Engineering, and there are limited opportunities for smaller colleges, such as Biomedical Engineering.”
- “Students with lack of funds find it harder to participate because they either do not have the money or have a job and so cannot commit to the high-impact experiences.”

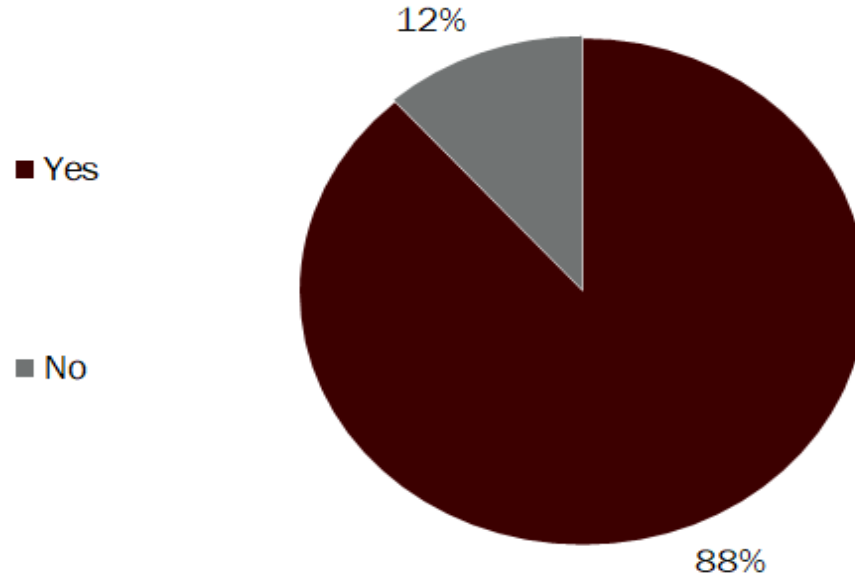
Use of Instructional Technology

Asked to all students

Responses: 4789



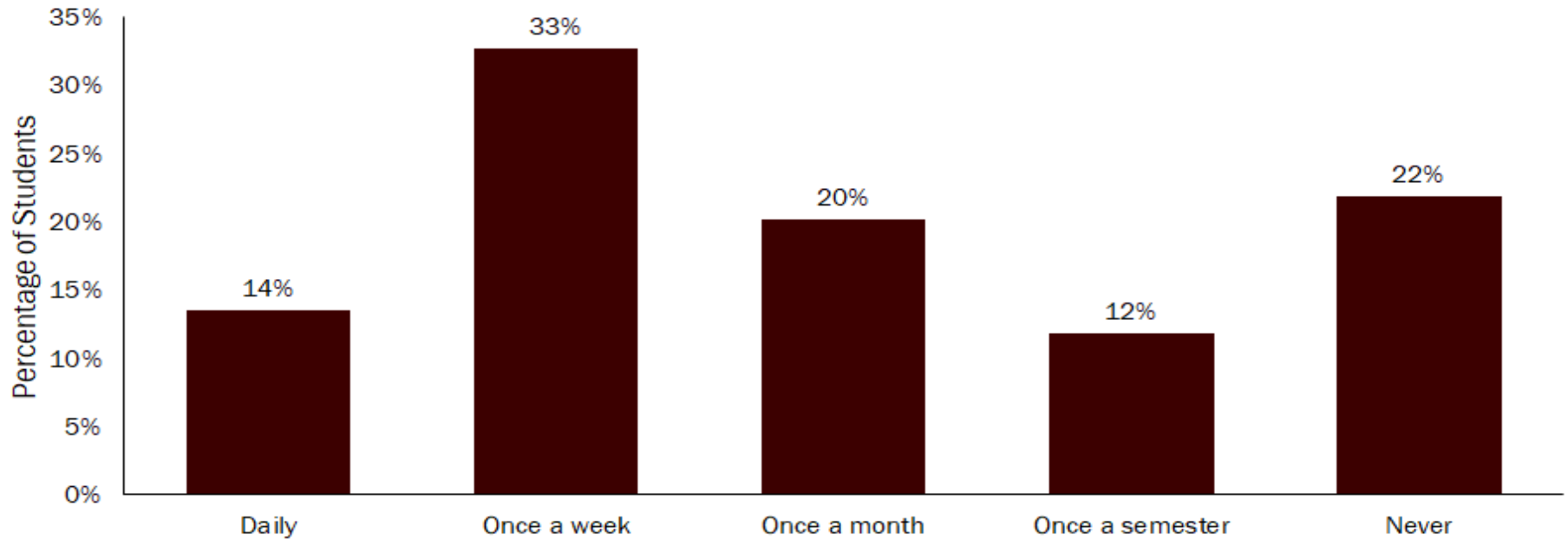
Do your instructors incorporate instructional technology into their courses?





Responses: 4789

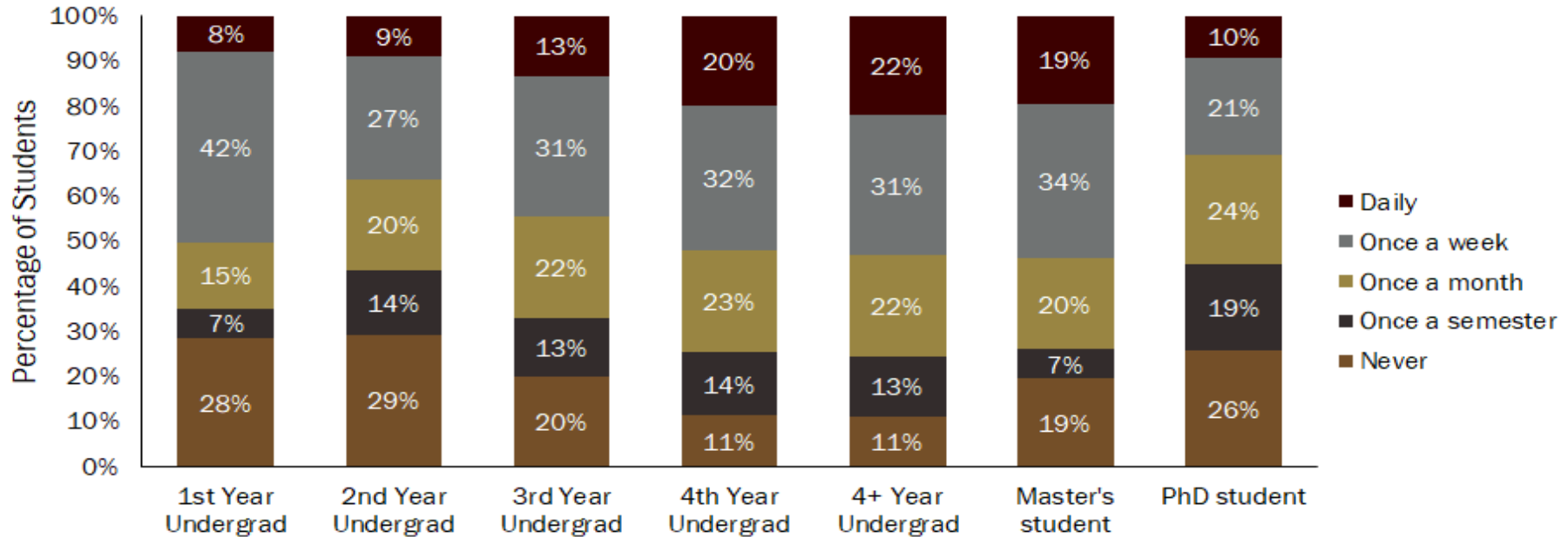
How often do you use the Open Access Computer Labs on campus?



Responses: 4789



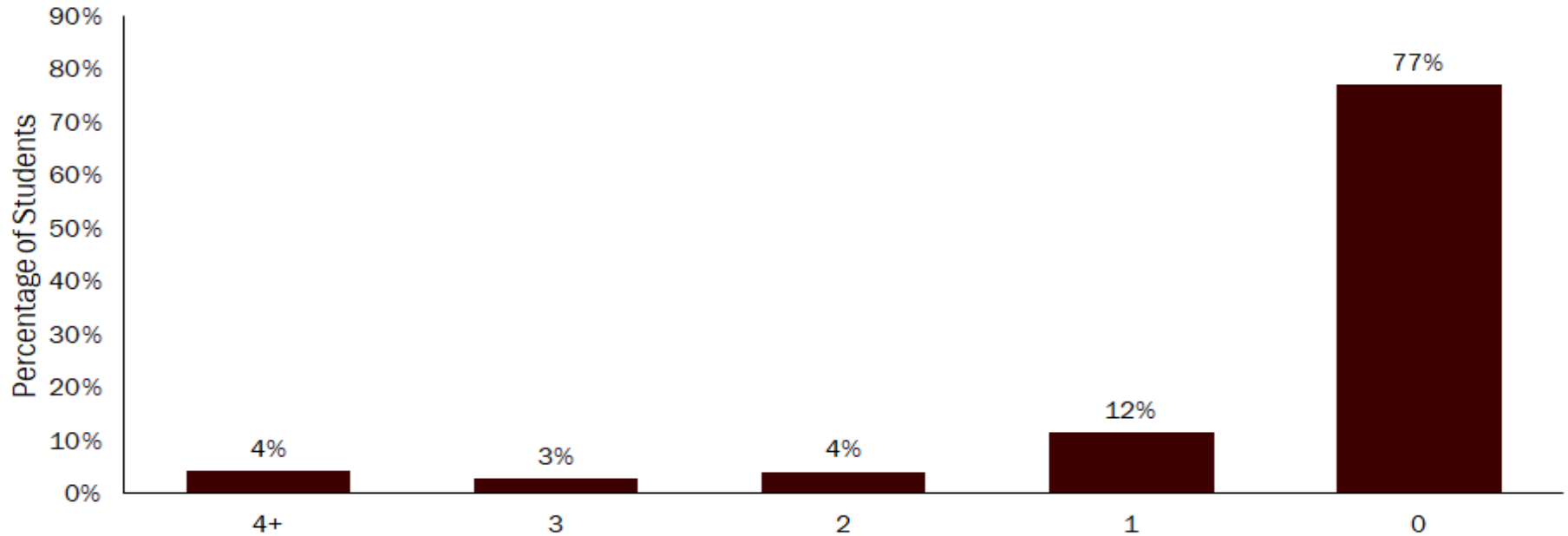
How often do you use the Open Access Computer Labs on campus?





Responses: 4730

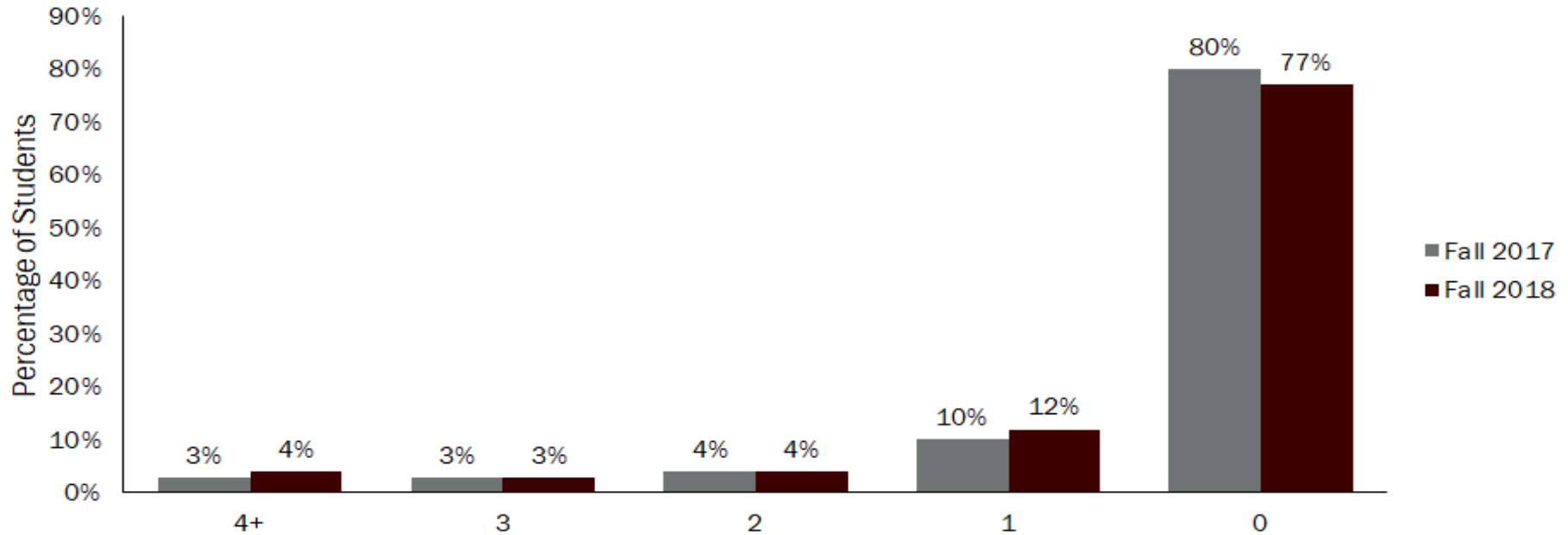
How many online courses are you taking, or have taken, within the College of Engineering at Texas A&M?





Responses: 4730

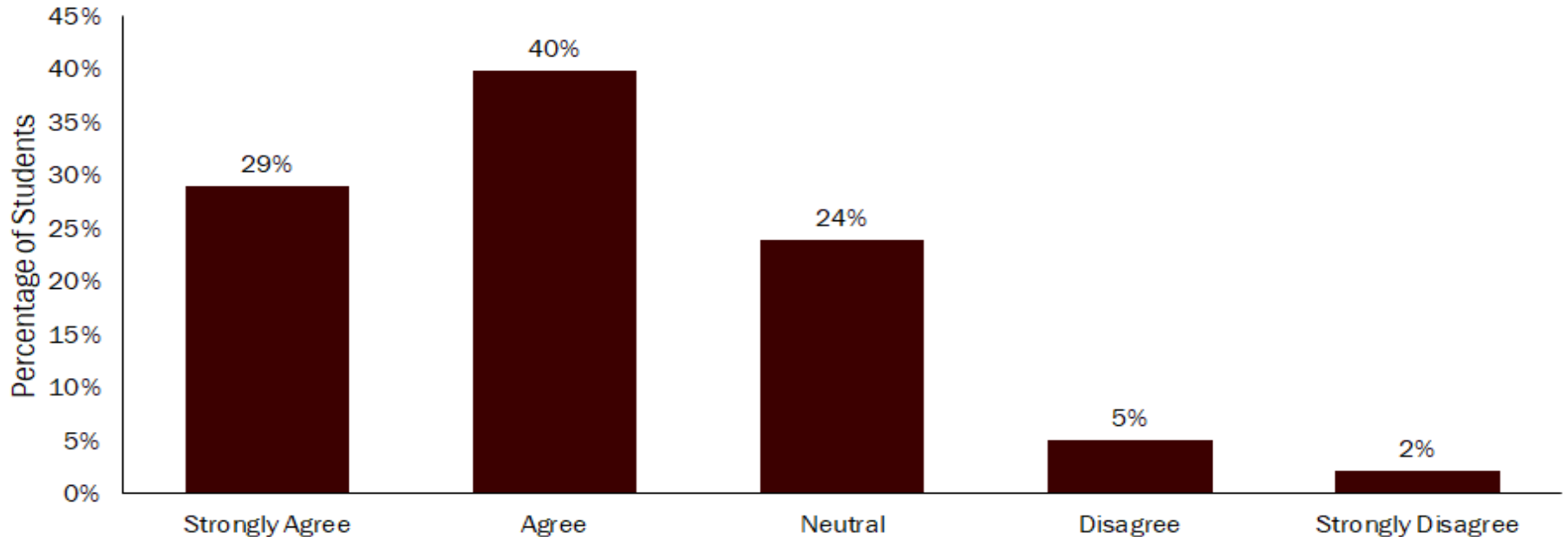
How many online courses are you taking, or have taken, within the College of Engineering at Texas A&M?



Asked to those who took at least 1 online course
Responses: 1084



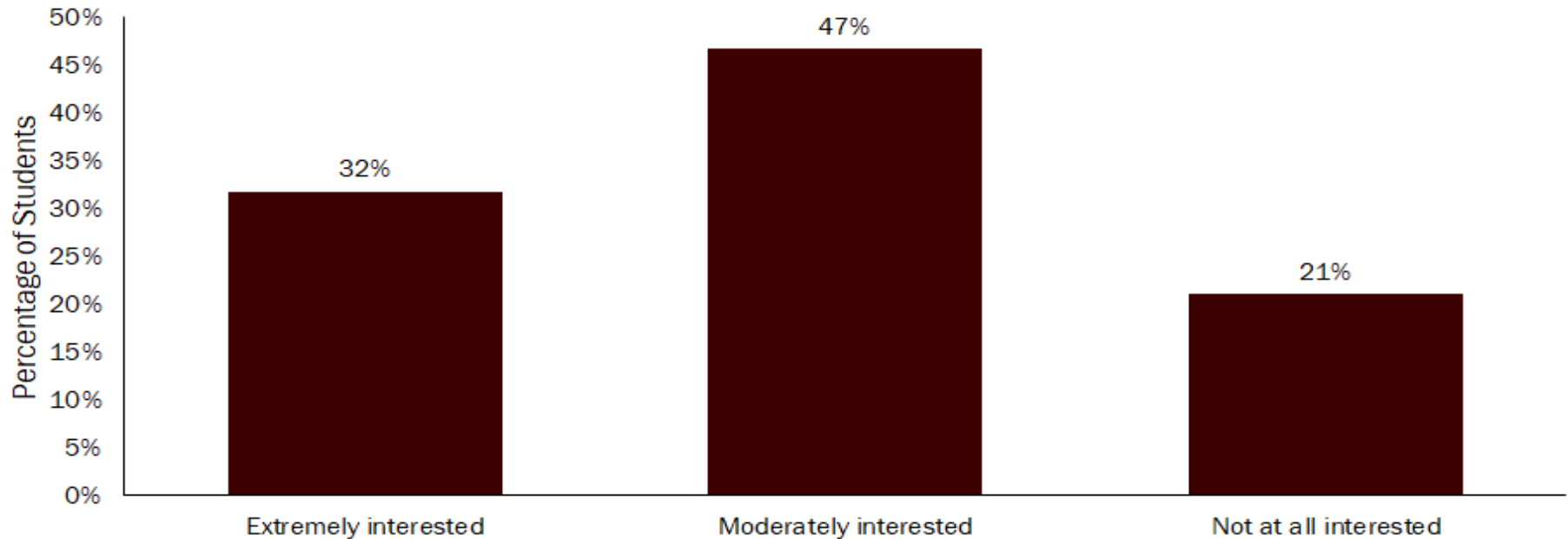
I am satisfied with the quality of education provided by the online course(s) I took through Texas A&M.



Responses: 4715



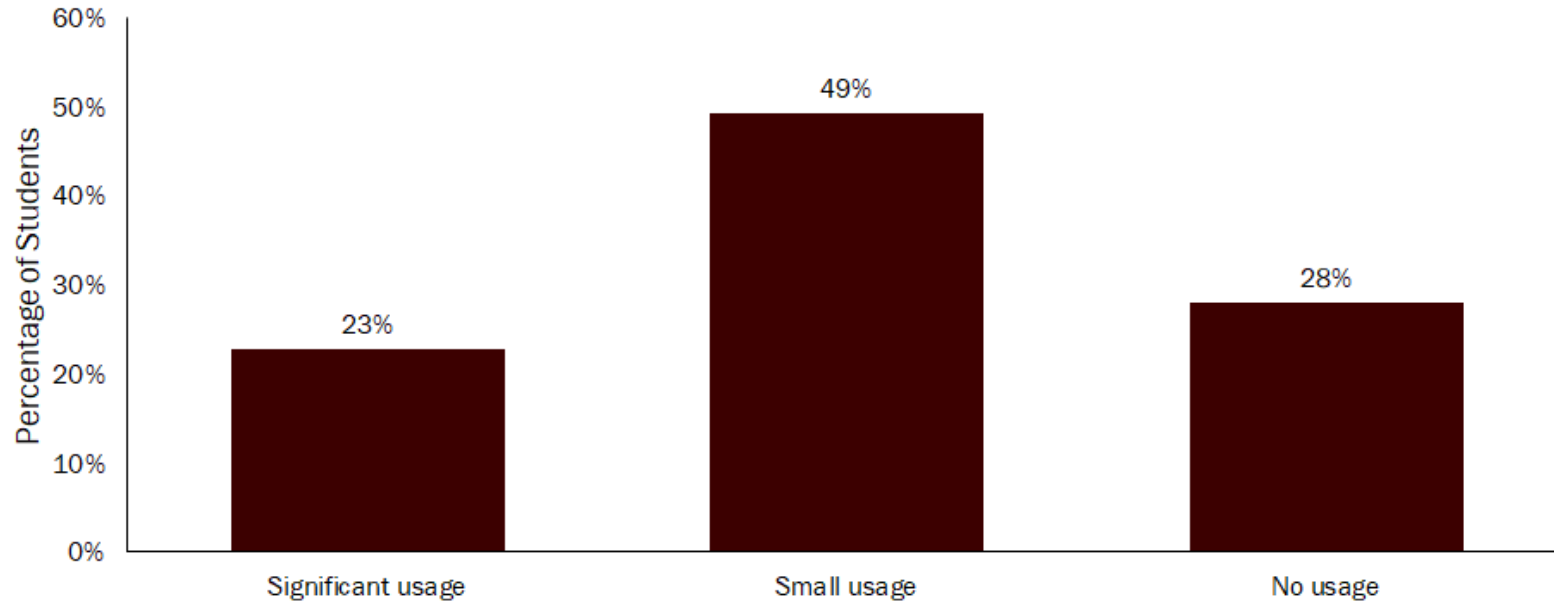
If there were more online courses offered for your degree, how interested would you be in taking them?





Responses: 4542

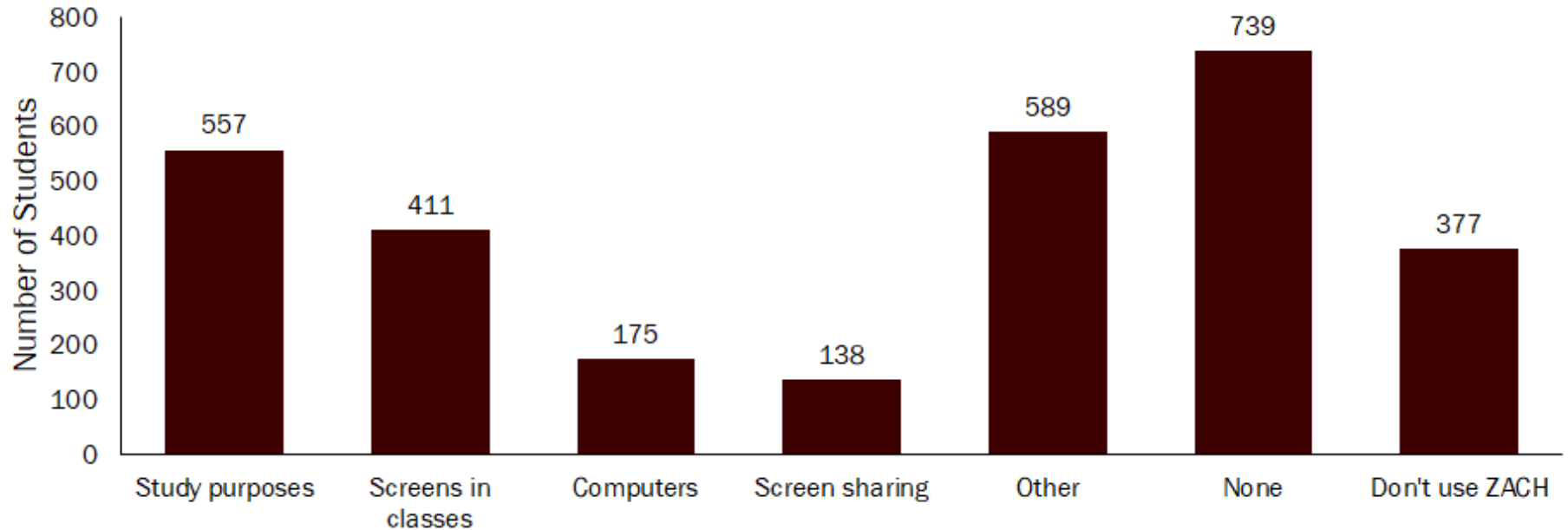
As a student, to what extent have you utilized the technology available in the Zachry Engineering Education Complex?





Responses: 2986

Open-Ended: As a student, in what ways are you utilizing instructional technologies in the Zachry Engineering Education Complex?





Responses: 2986

Open-Ended: As a student, in what ways are you utilizing instructional technologies in the Zachry Engineering Education Complex?

To Study

- “For study purposes and group learning.”
- “Study spaces”

Screen Sharing

- “AirConnect is very useful for team work”

Screens in Classes

- “The monitors at each table are extremely helpful for team projects”

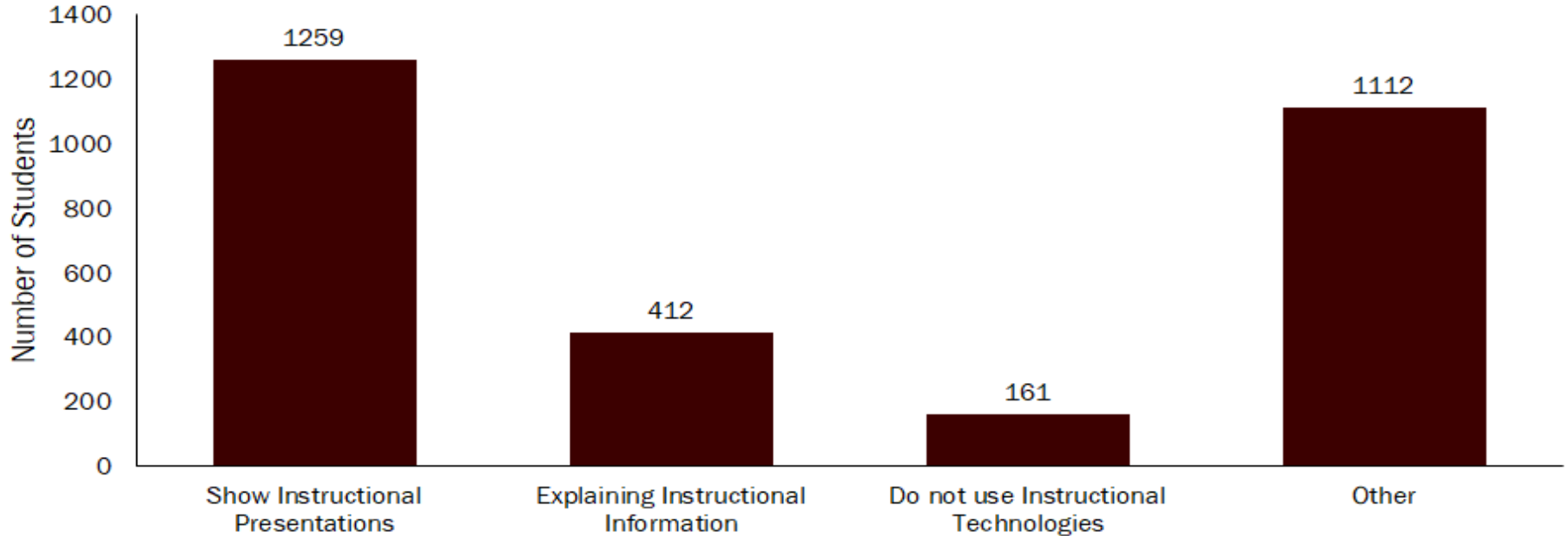
Other

- “Utilizing the FEDC for VEX U robotics”



Responses: 2944

Open-Ended: In what ways are your professors utilizing instructional technologies in the classroom in Zachry Engineering Education Complex?





Open-Ended: In what ways are your professors utilizing instructional technologies in the classroom in Zachry Engineering Education Complex?

Explaining Instruction Information

- “Casting PowerPoints and professor's hand work to local monitor at student desks is helpful in determining what he is doing; can often talk amongst other students and point at areas of confusion to better understand”
- “My professors use the smart board which is super helpful but I can't see my profs so I can't see what they're pointing at 90% of the time. Also, a lot of my profs have trouble with the smart board sometimes so I think there should be a mandatory faculty meeting showing them how to work the smart boards.”



Open-Ended: In what ways are your professors utilizing instructional technologies in the classroom in Zachry Engineering Education Complex?

Showing instructional information

- “My professors use the TV monitors a lot. And they write on them too. And I like how there are TVs at each table so we don’t have to stretch to see everything that is going on.”

Does not use instructional information

- “Most of the professors do not know how to use the technology. They possibly need a course to help instruct them on how to better utilize the devices. Many professors just write on the board or go through slide presentations. I think with a little bit of help, they will be able to learn how to use the technology in a more efficient way.”

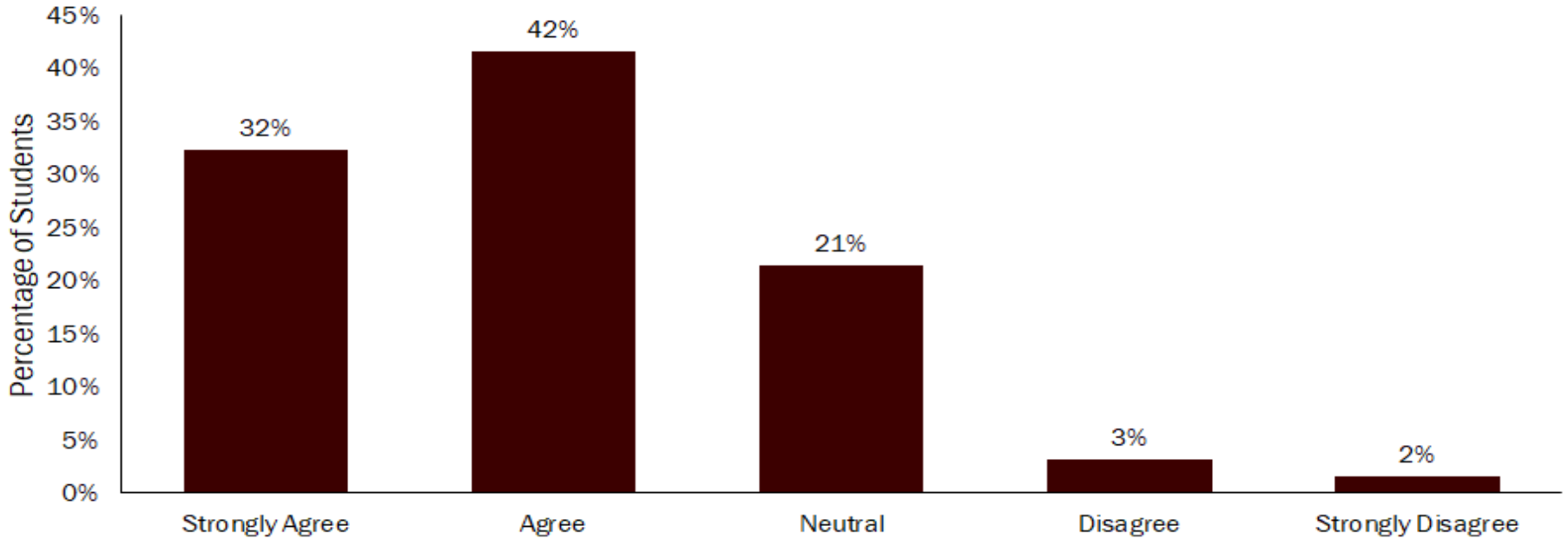
Undergraduate Environment

Asked to only undergraduate students



Responses: 3601

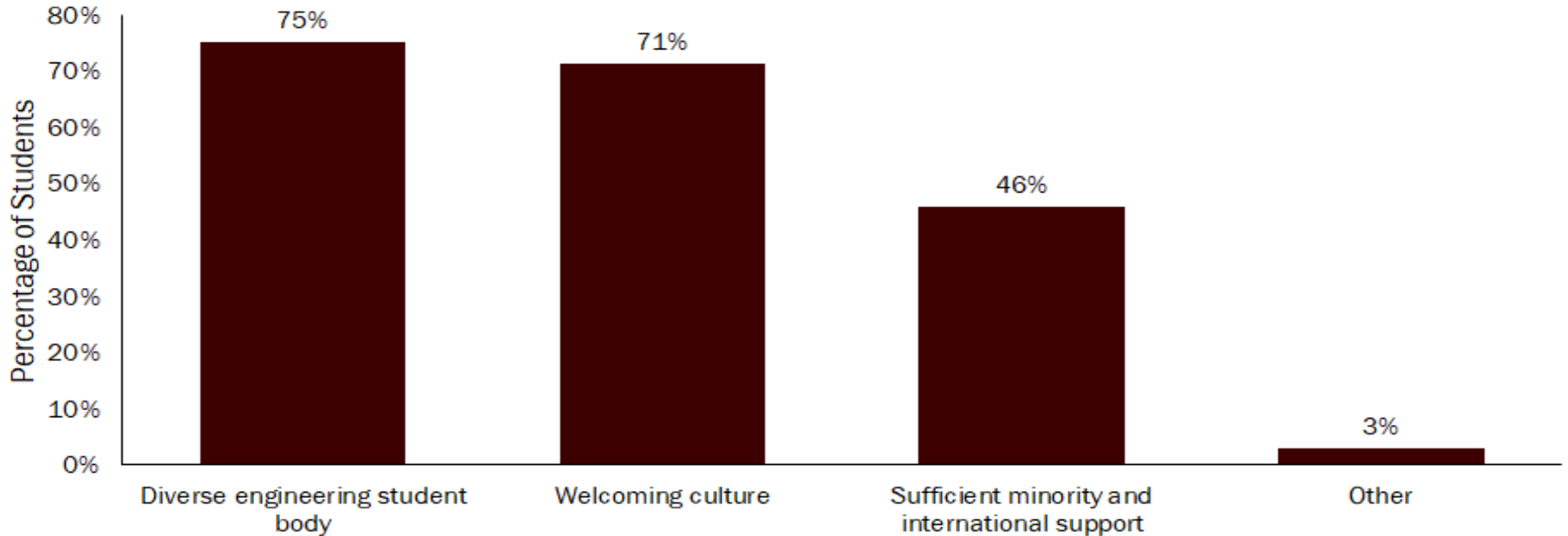
I think the College of Engineering values diversity.



Asked to students who believed the college values diversity
Responses: 2659



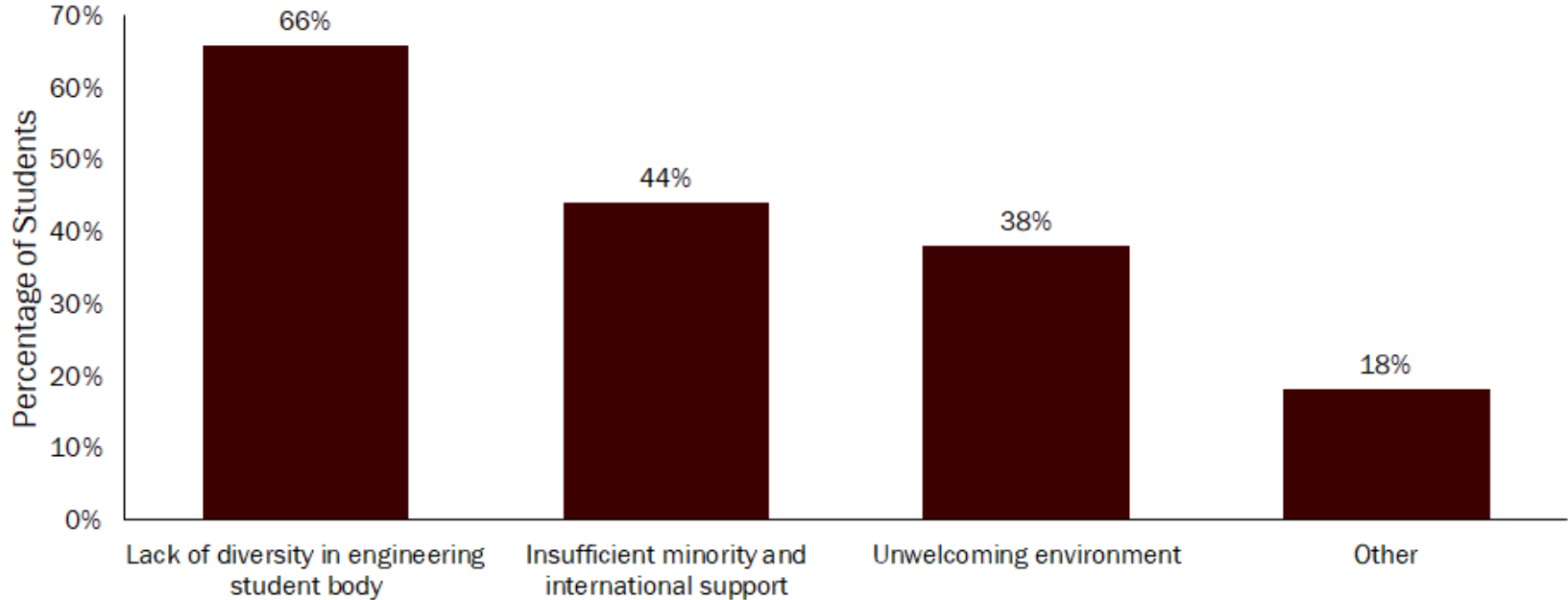
Which of the following are examples of how the College of Engineering values diversity? (Select all that apply)



Asked to those who felt the college undervalues diversity
Responses: 275



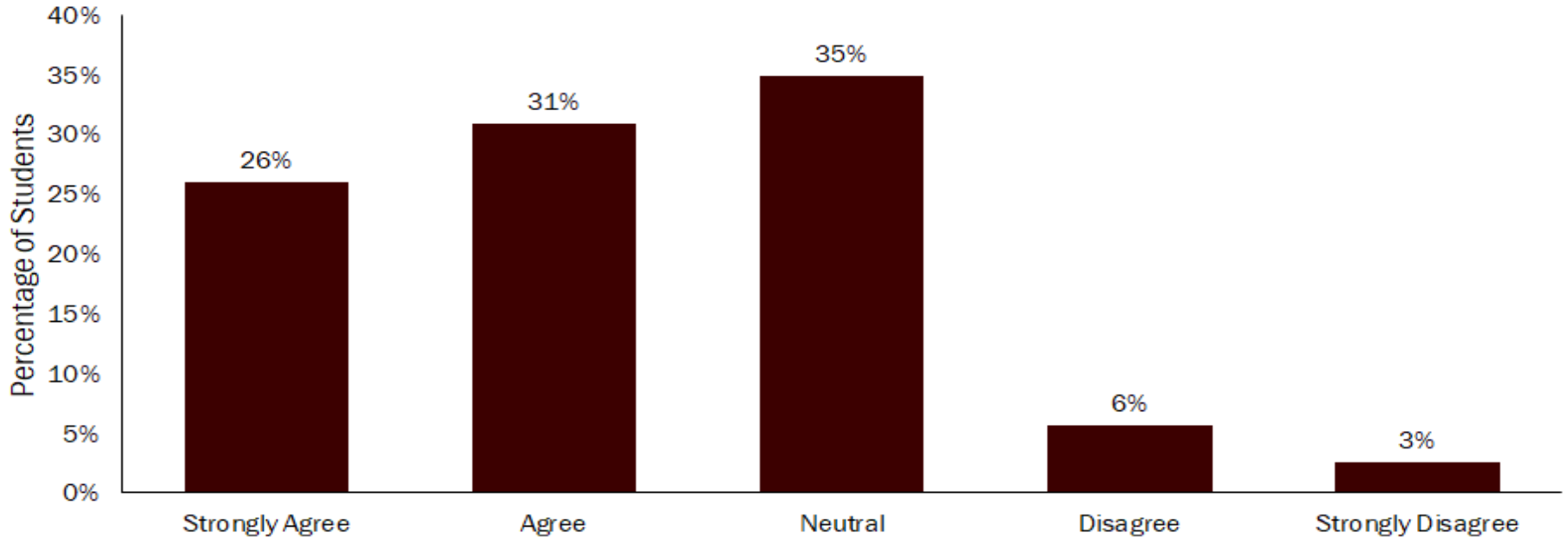
Which of the following are examples of how the College of Engineering undervalues diversity? (Select all that apply)





Responses: 4605

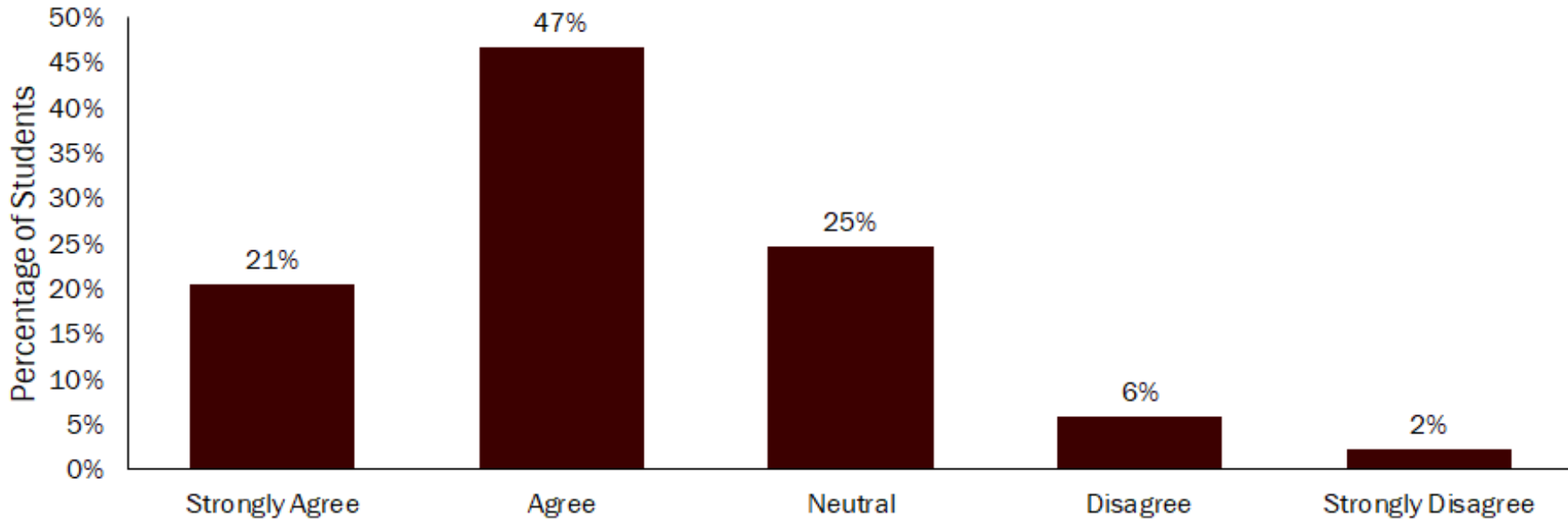
I think the College of Engineering takes sufficient measures to address sexual assault/harassment.





Responses: 3596

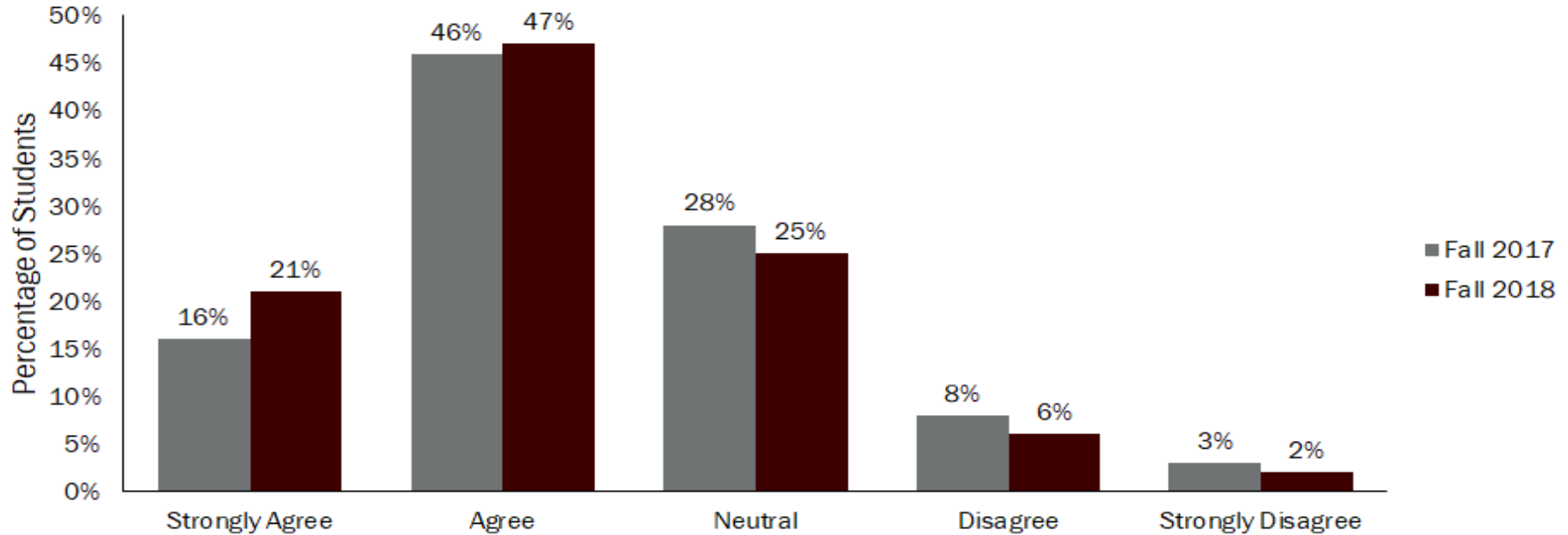
The environment within the College of Engineering helps me succeed academically.



Responses: 3596



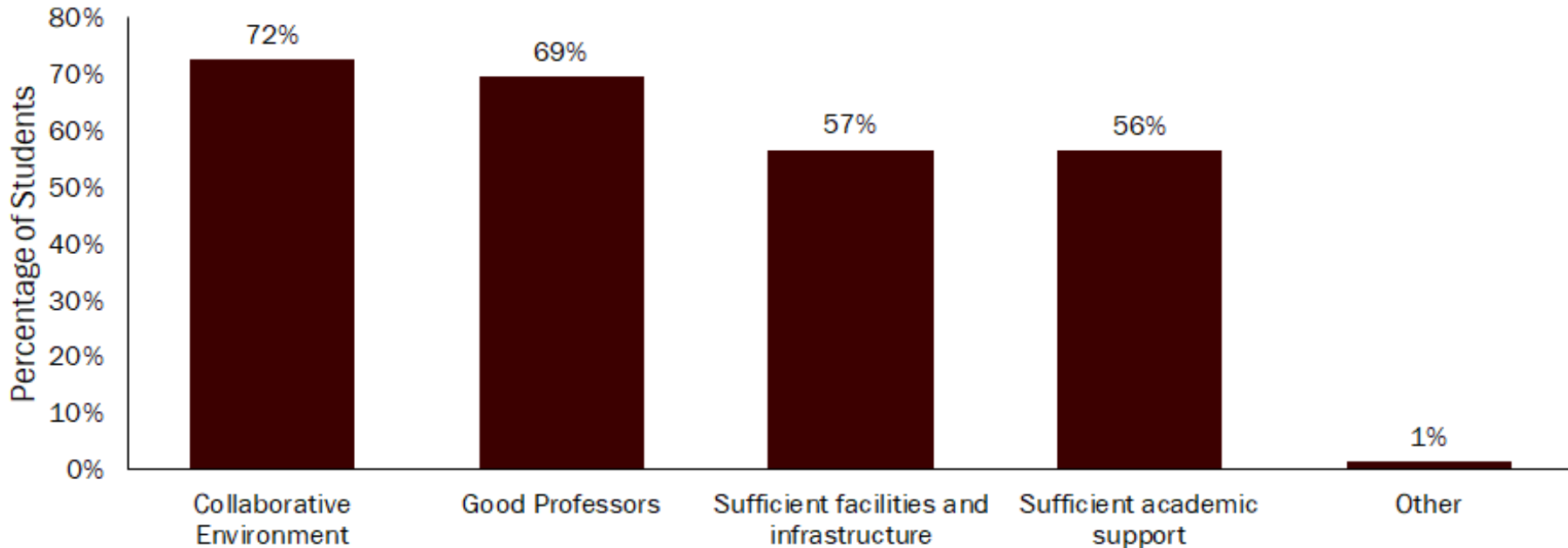
The environment within the College of Engineering helps me succeed academically.



Asked to those that felt the college helped them succeed
Responses: 2421



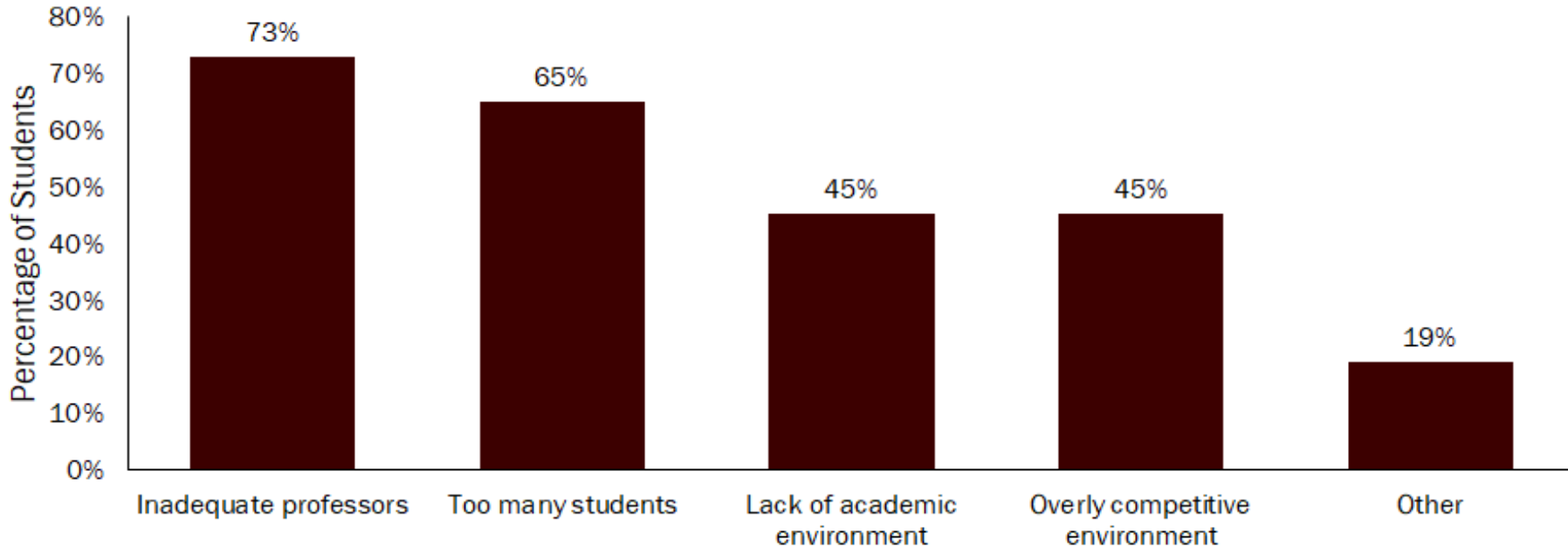
Which of the following are examples of how the College of Engineering helps you succeed academically? (Select all that apply)



Asked to those felt that the college did not help them succeed
Responses: 716



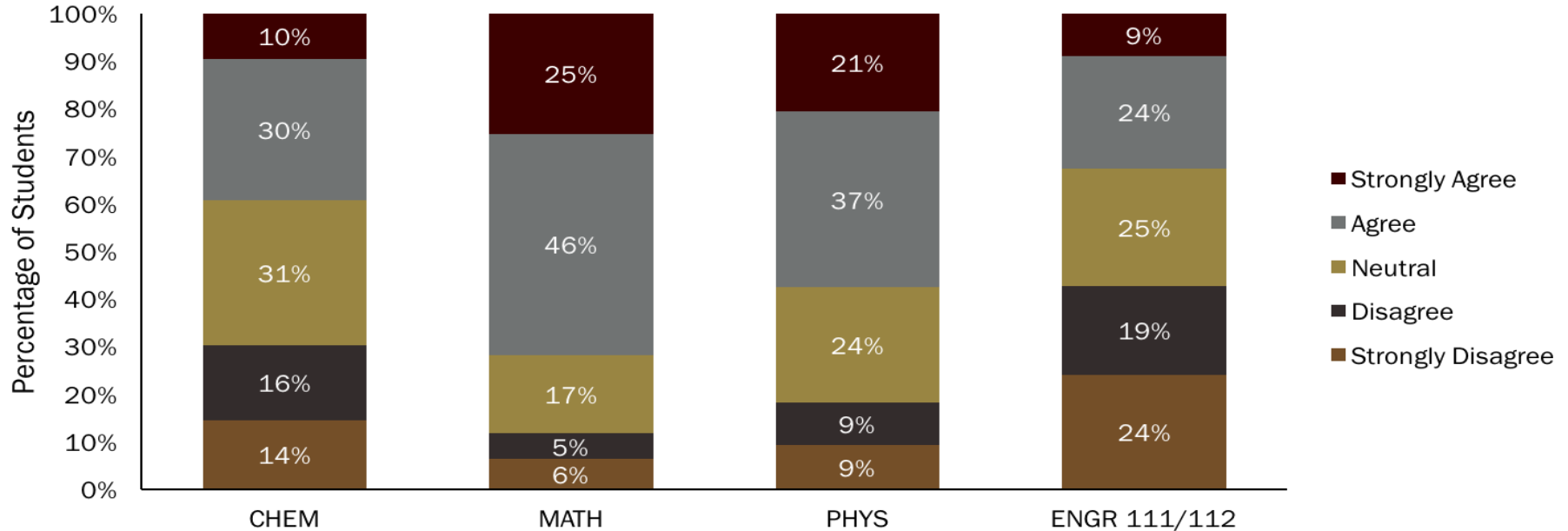
Which of the following are examples of how the College of Engineering does not help you succeed academically? (Select all that apply)



Asked to 2nd, 3rd, 4th, and 4+ year undergraduate students
Responses: 2549



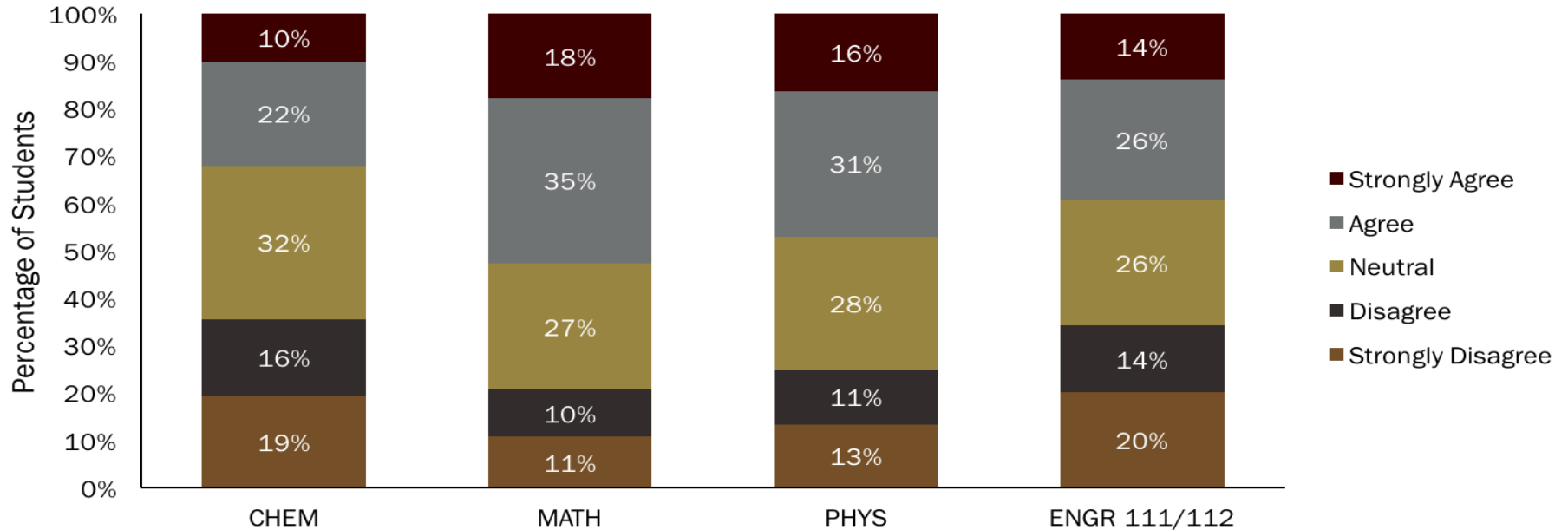
My first-year coursework (in CHEM, MATH, PHYS or ENGR 111/112) adequately prepared me for my engineering coursework.



Asked to 2nd, 3rd, 4th, and 4+ year undergraduate students
Responses: 2549



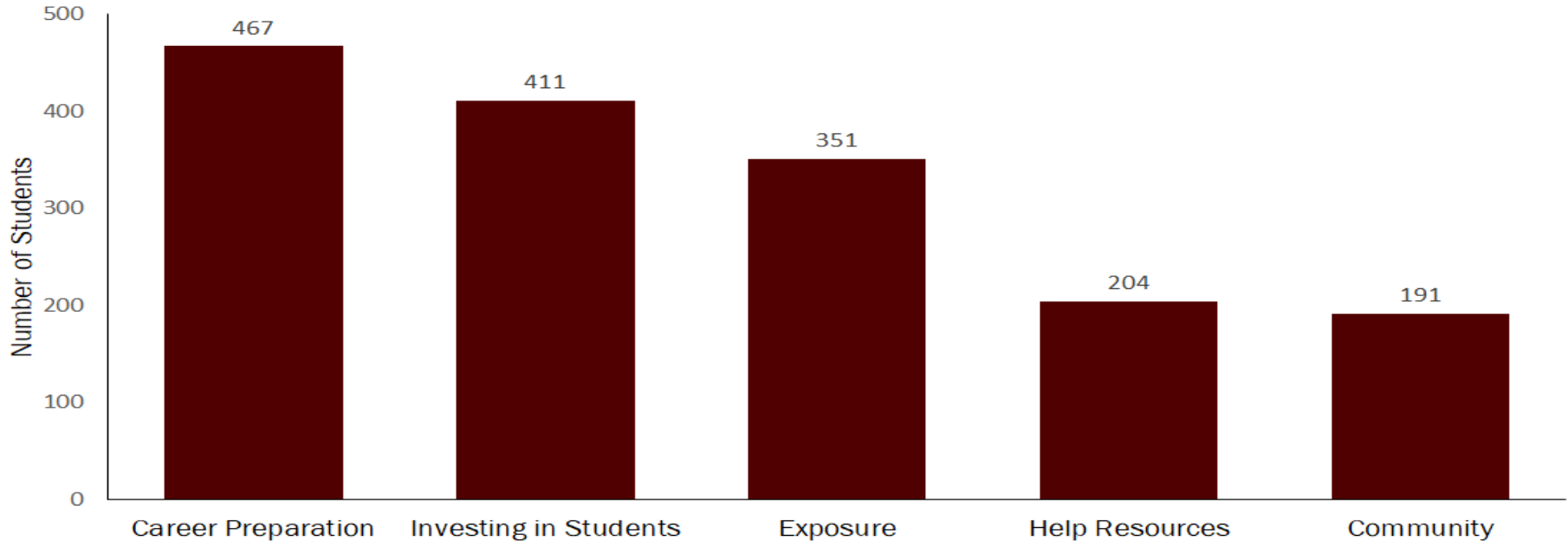
My first-year coursework (in CHEM, MATH, PHYS, or ENGR 111/112) helped me decide that being an engineer was right for me.





Responses: 2358

Open-Ended: What are some of the strengths of the College of Engineering's approach to the Undergraduate Environment?





Open-Ended: What are some of the strengths of the College of Engineering's approach to the Undergraduate Environment?

Career Preparation

- “That they try to find the best instruction to give to prepare us for the real world of engineering: ie, teaching us python instead of only MATLAB.”

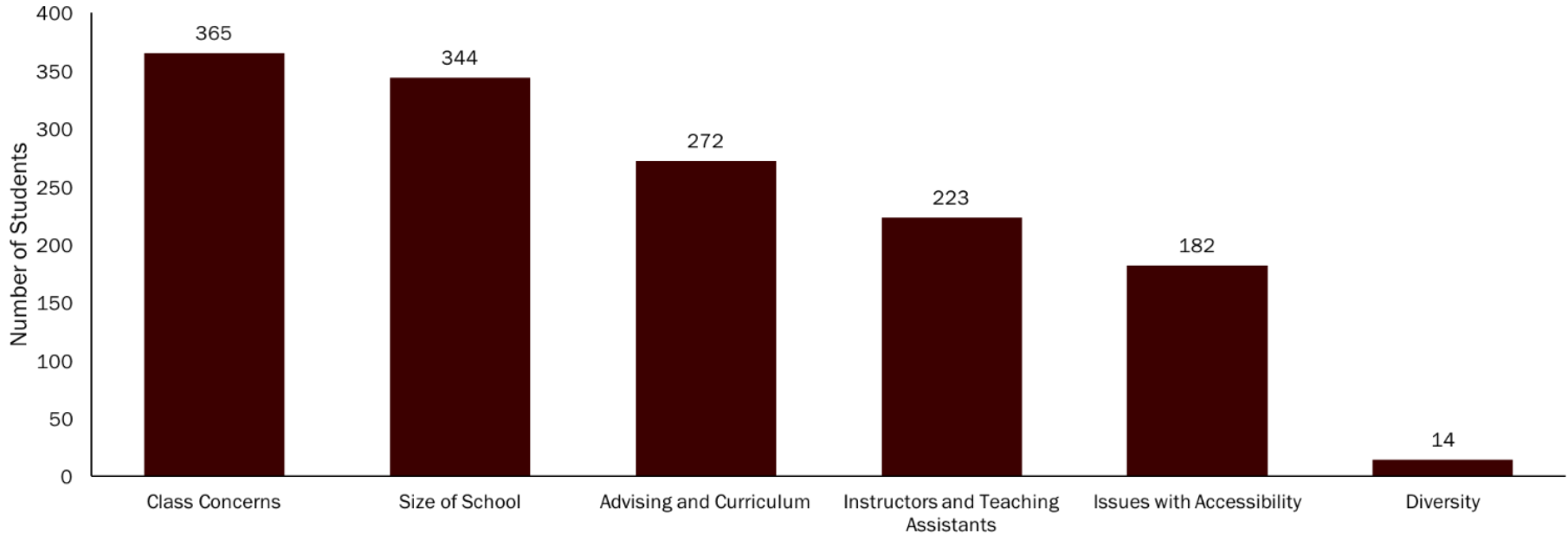
Investing in Students

- “It is super motivating and inspiring, the environment is the type that encourages creative thinking without the limitation of resources.”



Responses: 2390

Open-Ended: What do you think are some of the weaknesses of the College of Engineering's approach to the Undergraduate Environment?





Open-Ended: What do you think are some of the weaknesses of the College of Engineering's approach to the Undergraduate Environment?

Advising and Curriculum

- “Throwing all students into programming while some are already knowledgeable over the ideas, and trying to teach us both MATLAB and python at the same time is confusing and sometimes overwhelming. Also, the weekly videos over different engineering majors don't give as much information as I was hoping for. .”

Issues with Accessibility

- “I appreciate Zachry being a hub for engineers, but it would be incredibly nice to have other points of access around campus. ”

Active and Engaging Learning Initiatives

Asked to all students



Definition of “25 by 25 Initiative”

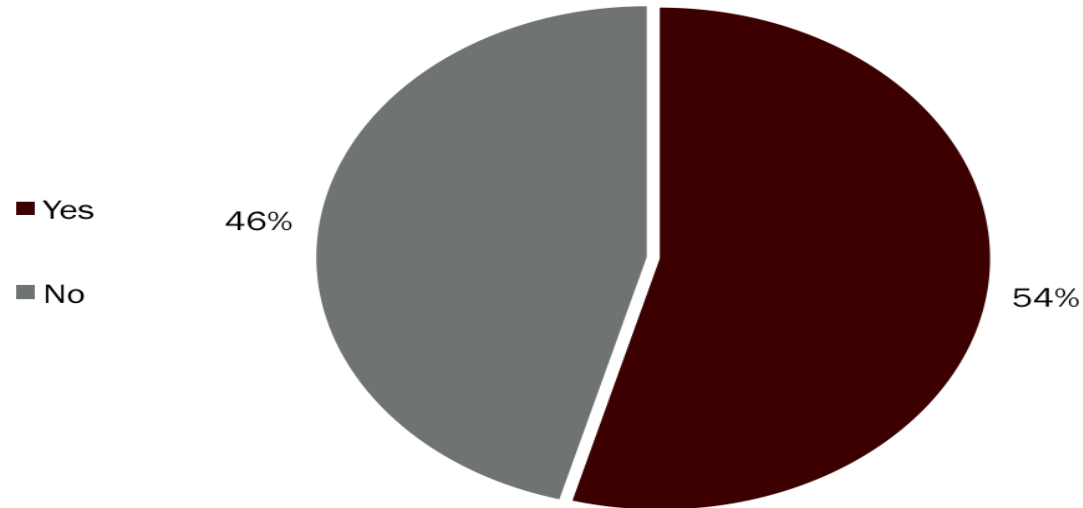
According to the College of Engineering, the 25 by 25 initiative is "a transformational education program designed to increase access for qualified students to pursue engineering education at Texas A&M University and increase our total enrollment to 25,000 students by 2025. This includes students on our College Station, Galveston, Qatar, and McAllen campuses, online master's degree students and students in our statewide engineering academies. 25 by 25 is not just about increasing numbers, it is also about enhancing quality and excellence."

You can find more information at: engineering.tamu.edu/25by25

Responses: 4571



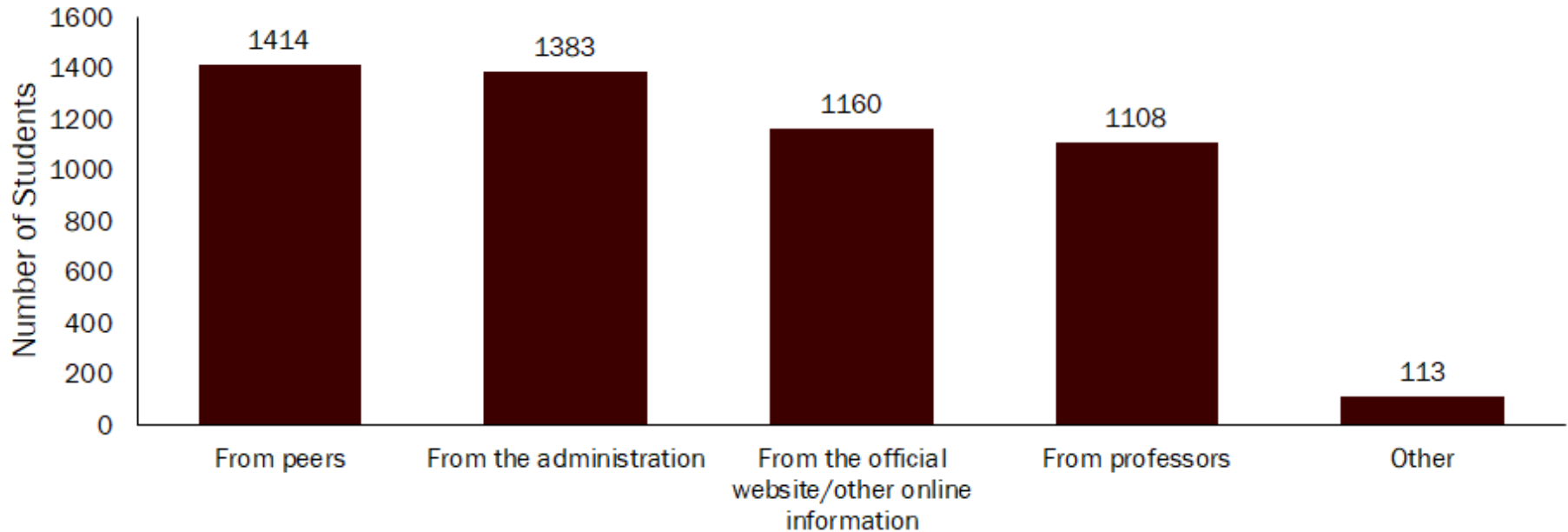
Do you have a detailed knowledge of the 25 by 25 initiative?



Asked to those who have a detailed knowledge
Responses: 2480



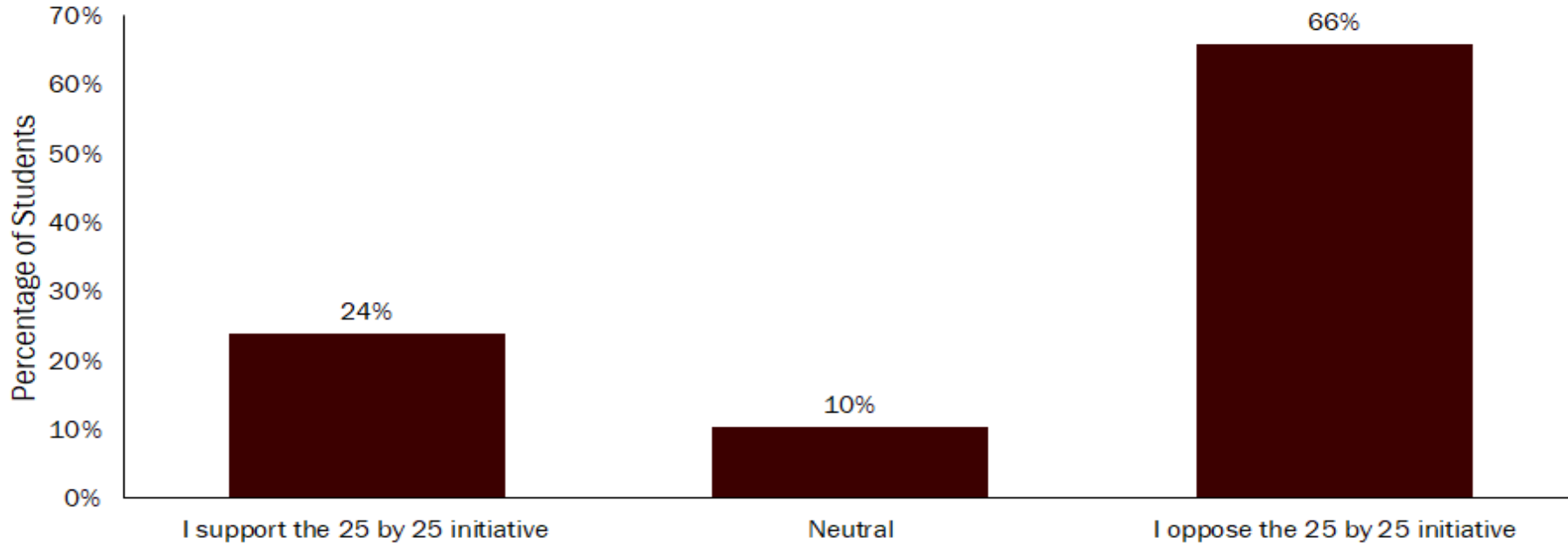
How did you acquire your knowledge of the initiative? (select all that apply)



Asked to those who had a detailed knowledge of the initiative
Responses: 2475



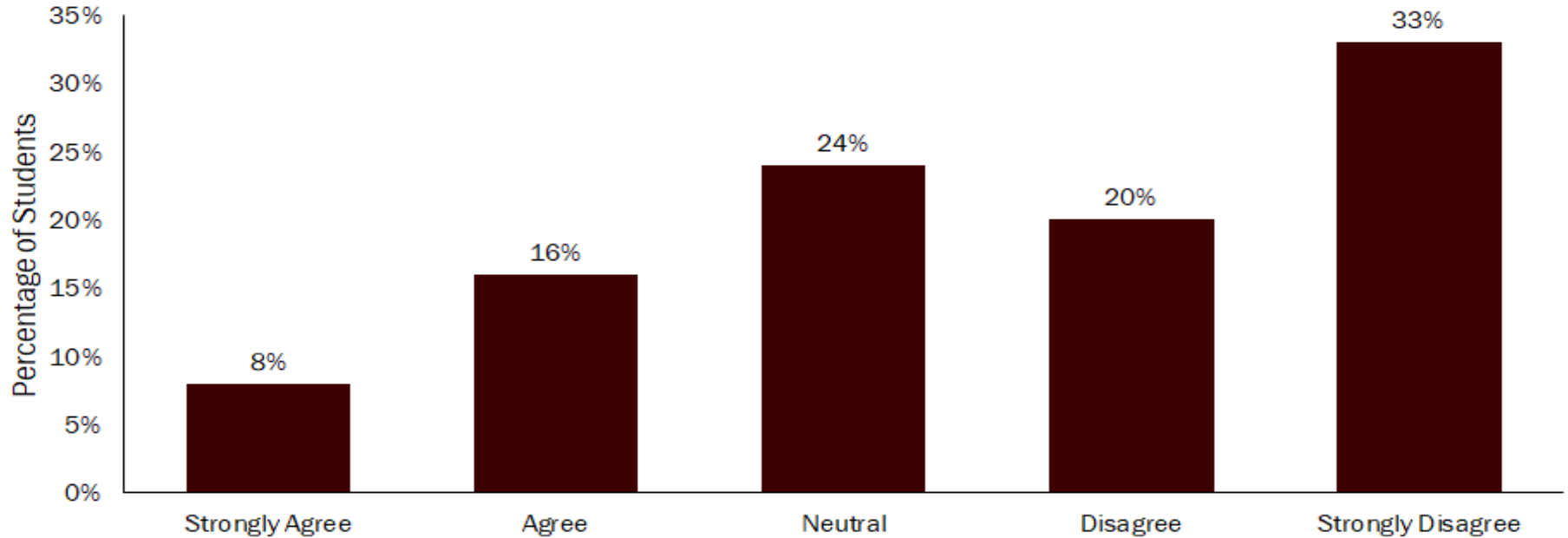
Please rank your agreement with the following statement regarding the 25 by 25 initiative.





Fall 2017 Responses

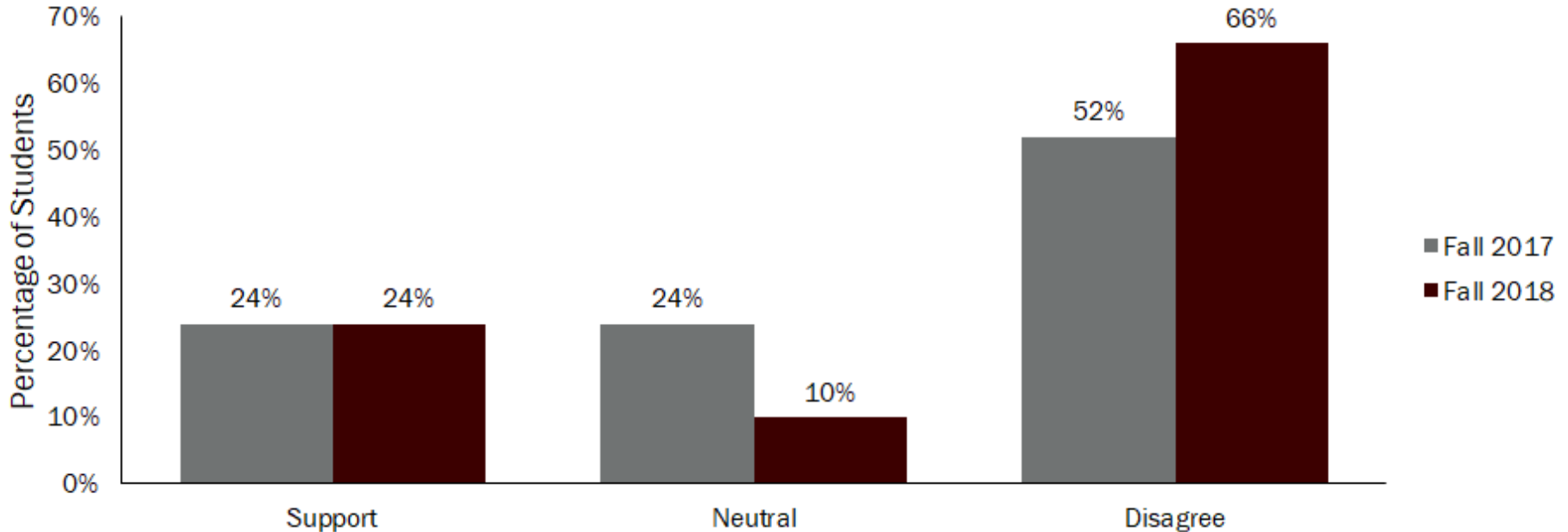
Please rank your agreement with the following statement: I support the 25 by 25 initiative.





Comparison of Fall 2017 and Fall 2018

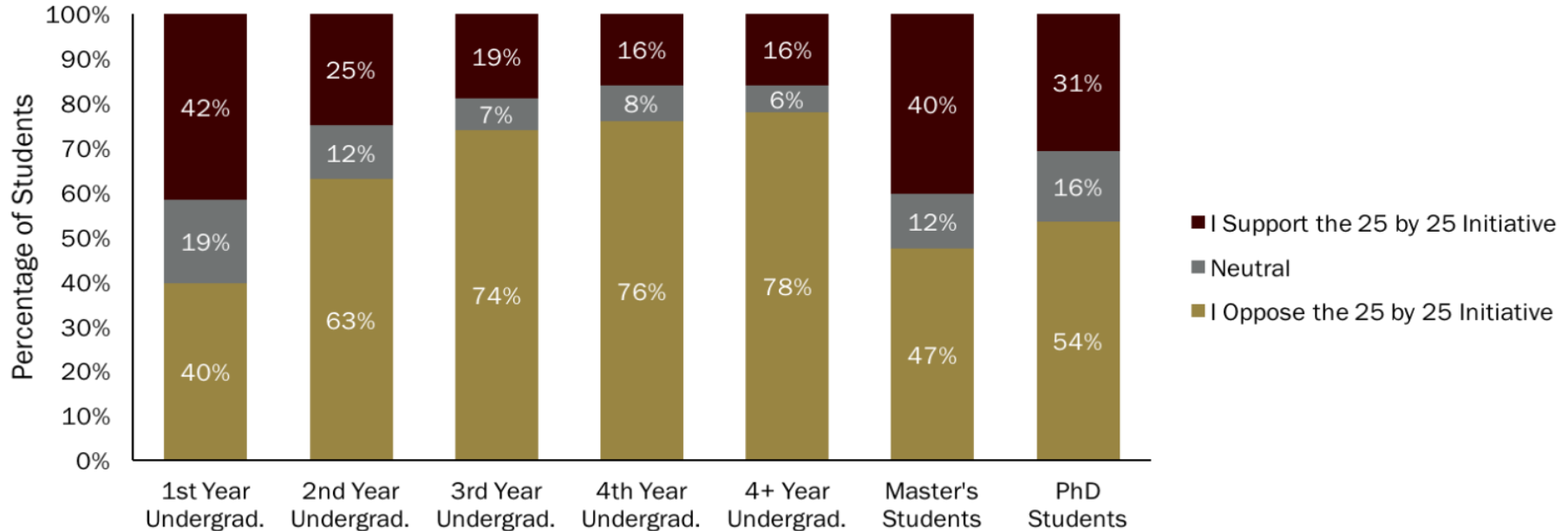
Please rank your agreement with the following statement regarding the 25 by 25 initiative.





Responses: 2475

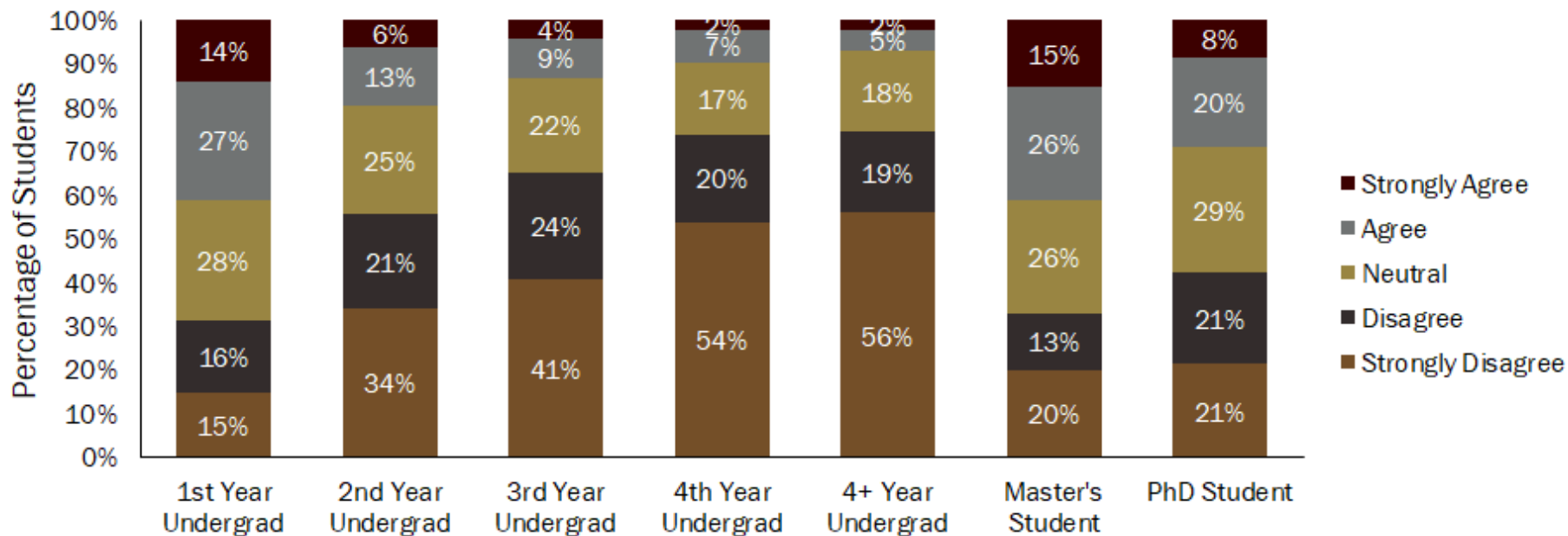
Please rank your agreement with the following statement regarding the 25 by 25 initiative.





Please rank your agreement with the following statement.

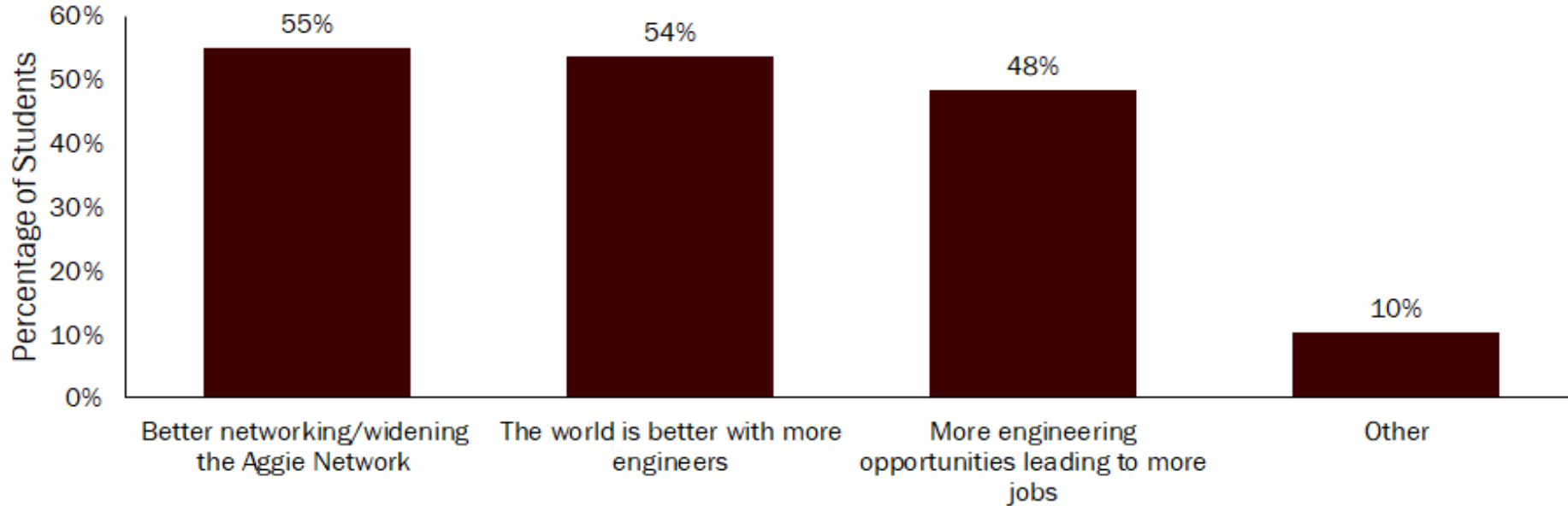
I support the 25 by 25 initiative.



Asked to students who support the initiative
Responses: 589



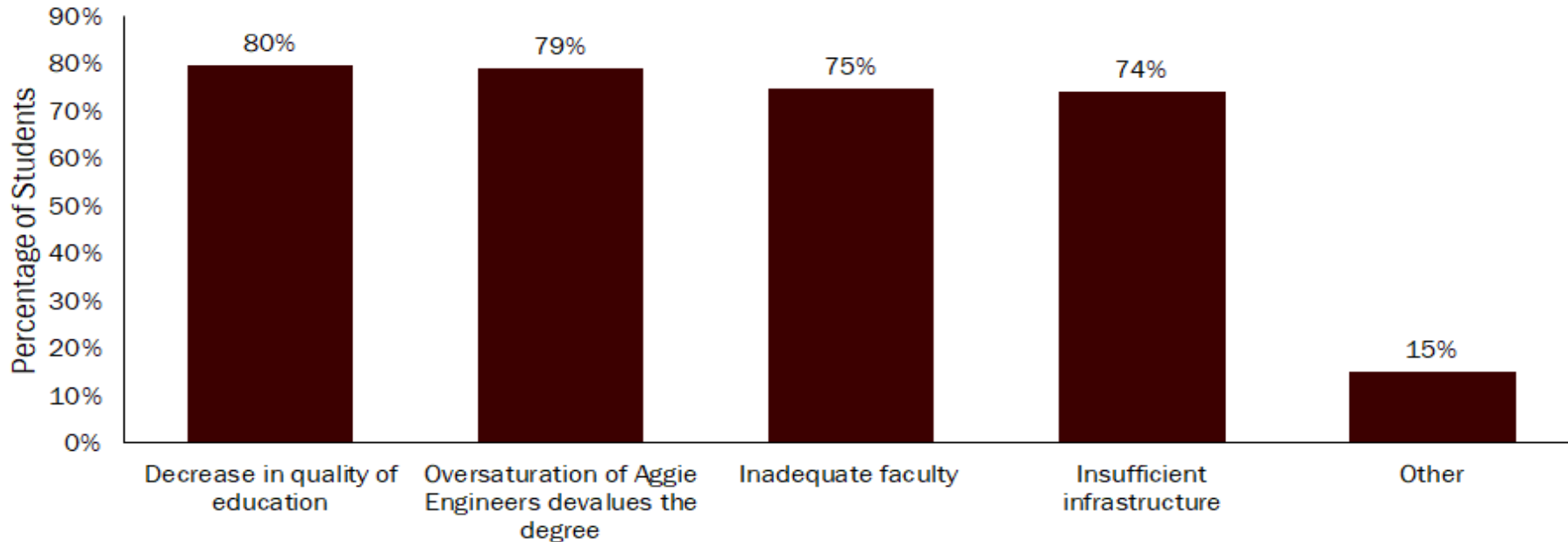
Which of the following explain your stance on the 25 by 25 initiative? (Select all that apply)



Asked to students who oppose the initiative
Responses: 1630



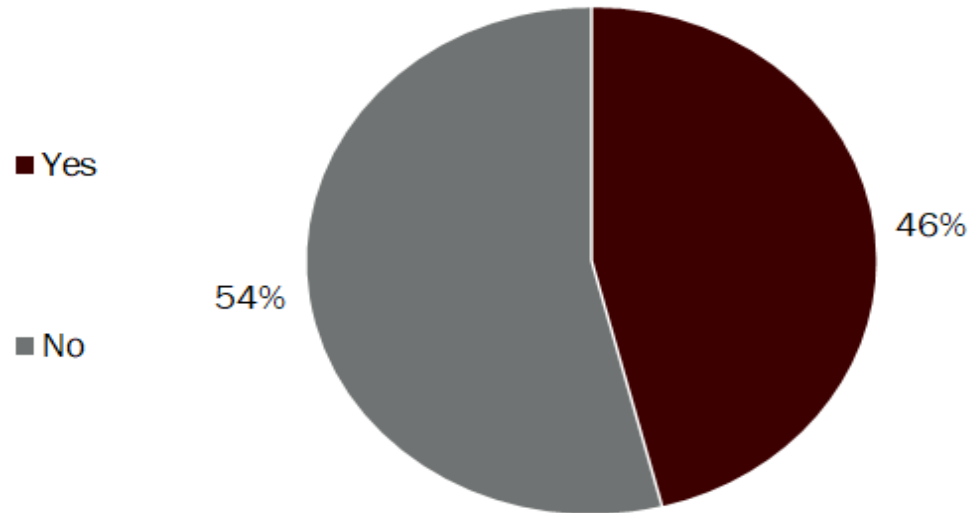
Which of the following explain your stance on the 25 by 25 initiative? (Select all that apply)



Responses: 4542



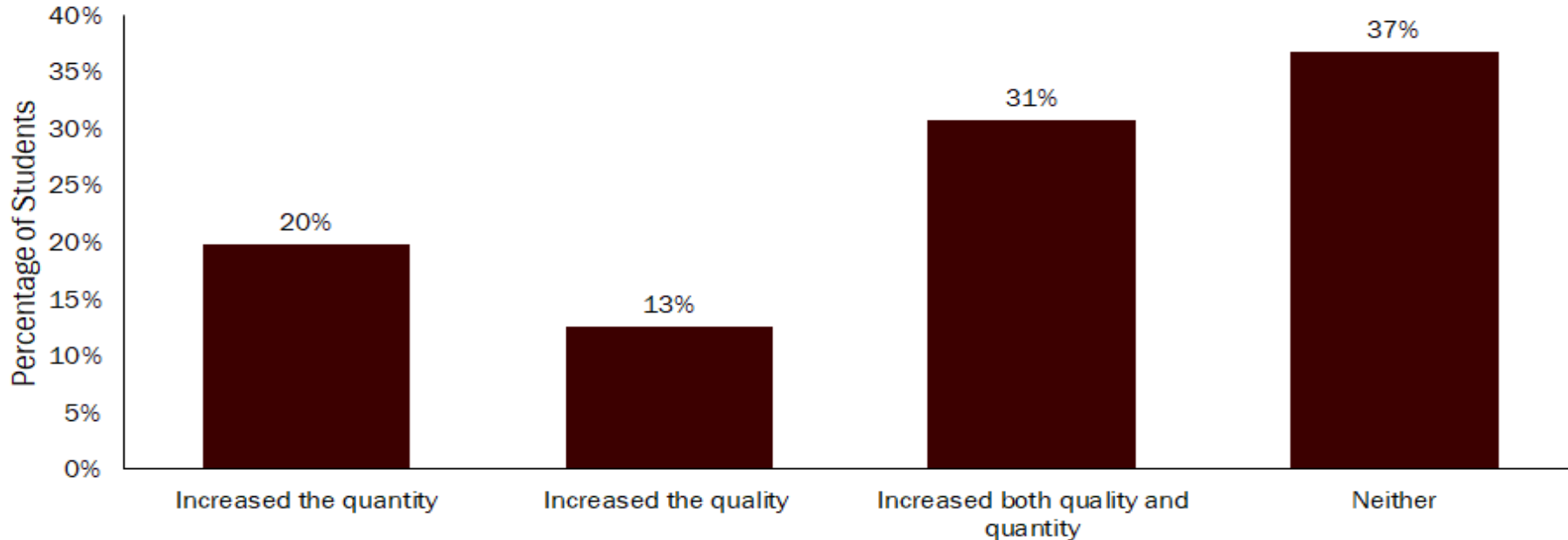
Do you feel that you have spent more time on campus this year due to the opening of the new Zachry Engineering Education Complex?



Responses: 4542



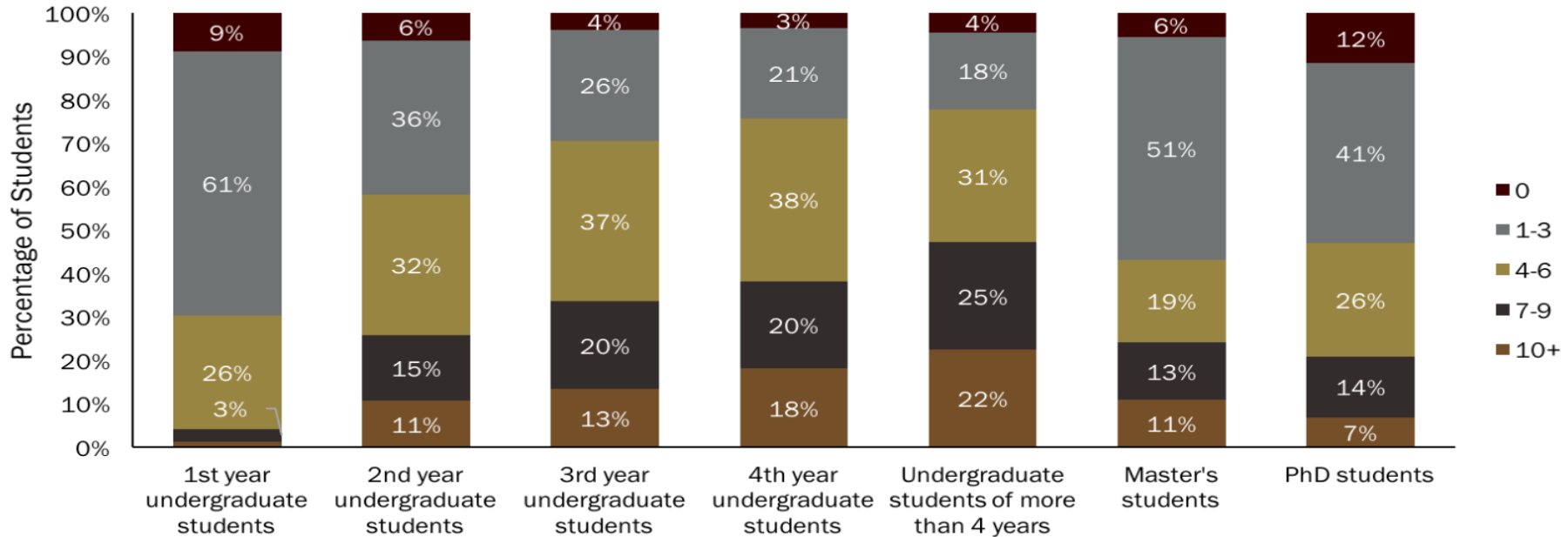
Has the Zachry Engineering Education Complex helped increase the quality and/or quantity of your interaction with other engineering students?



Responses: 4558



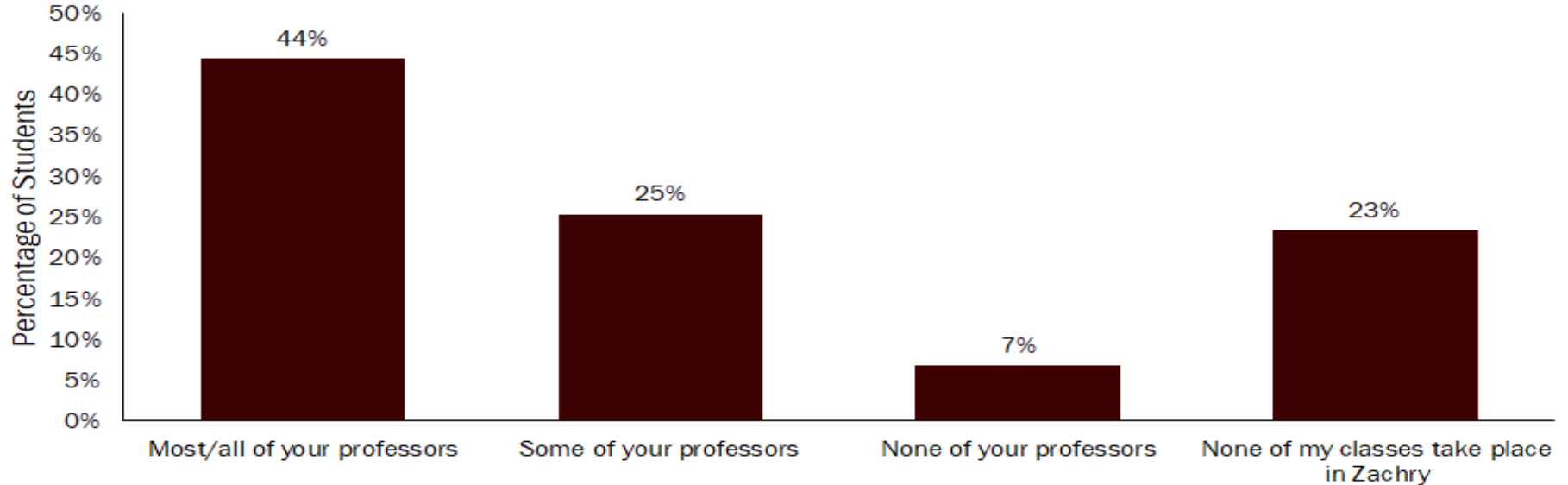
During your time at Texas A&M, how many of your courses have promoted an active and engaging learning environment facilitated by the professor?





Responses: 4518

Of your courses that take place in the Zachry Engineering Education Complex, how many of your professors have taken advantage of the available technology to promote an active and engaging learning environment?



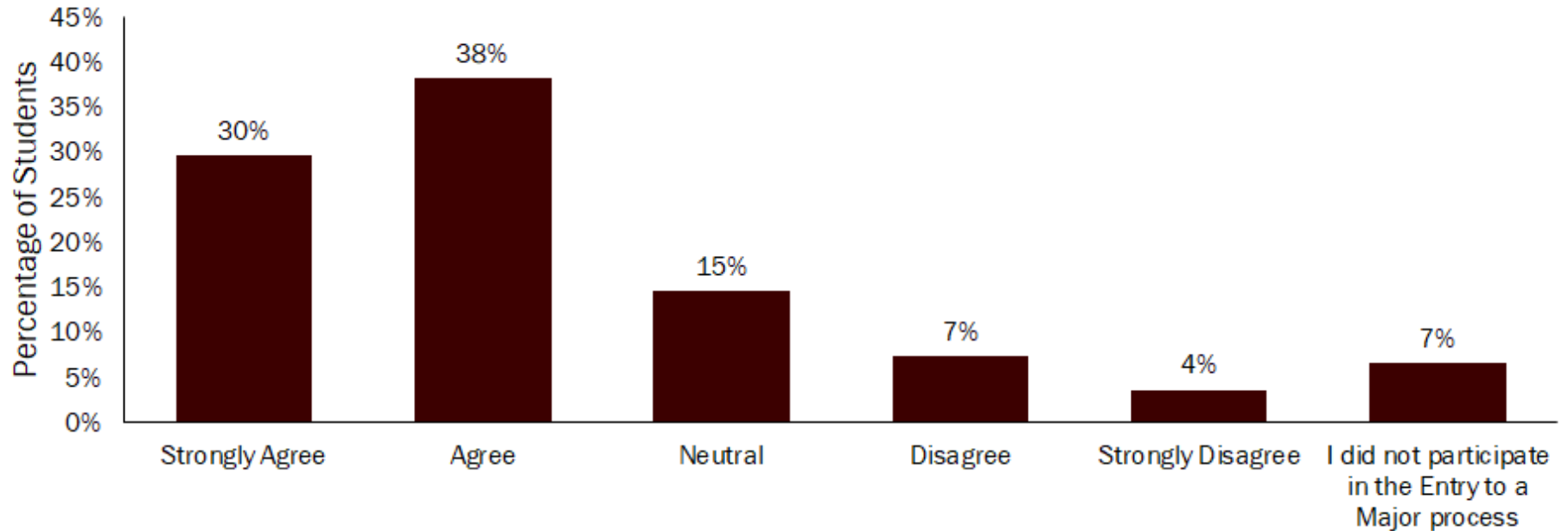
Entry-To-A-Major

Asked to 1st and 2nd year undergraduate students

Asked to 1st and 2nd year undergraduate students and those in intro to eng. courses
Responses: 1796



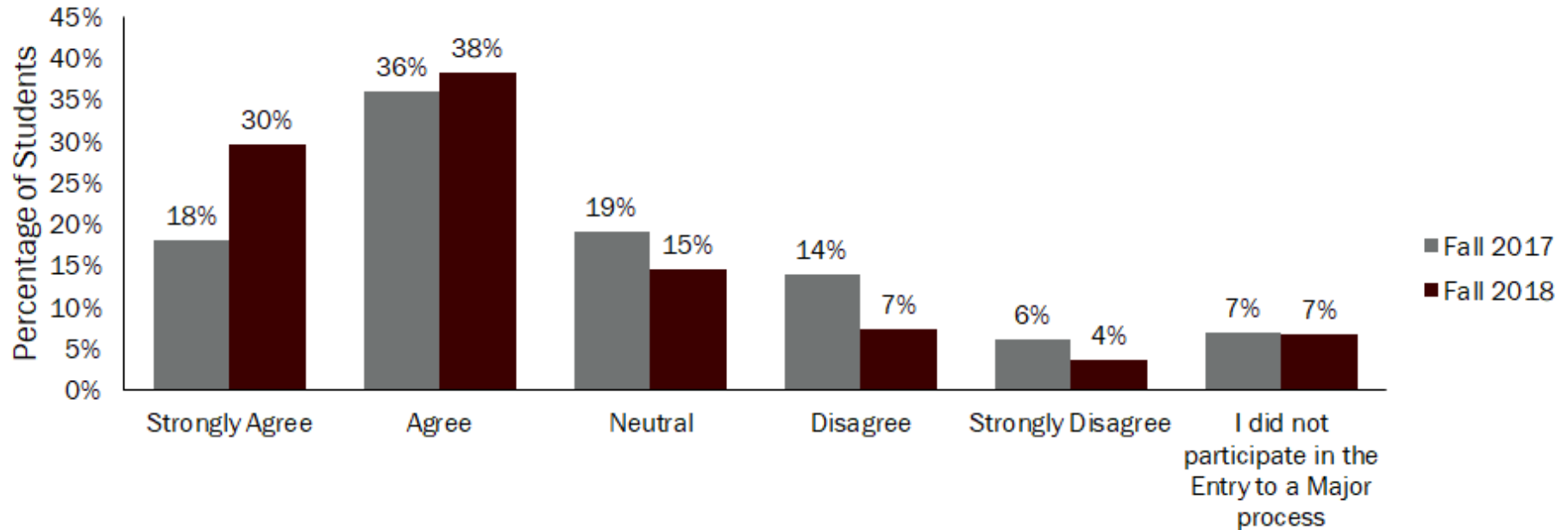
I receive(d) sufficient information about the different majors to make an informed decision about my major.



Asked to 1st and 2nd year undergraduate students and those in intro to eng. courses
Responses: 1796



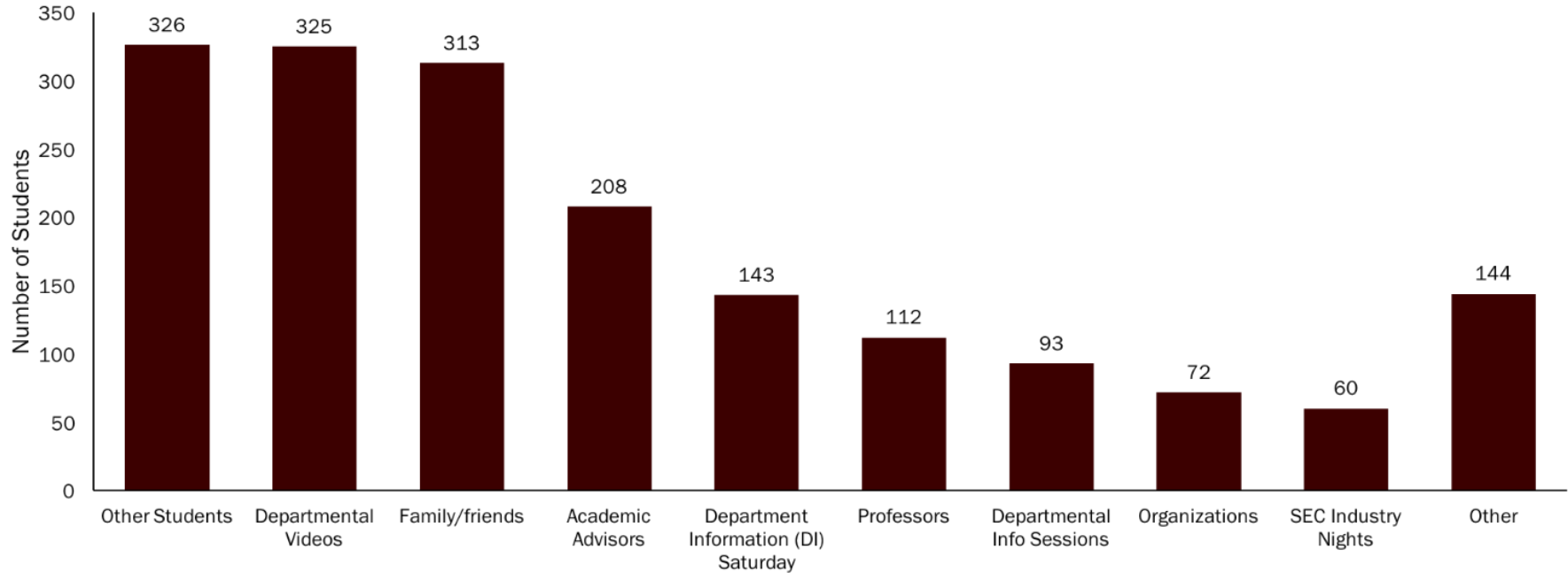
I receive(d) sufficient information about the different majors to make an informed decision about my major.



Asked to 1st and 2nd year undergraduate students
Responses: 1796



During your first year at Texas A&M, what is/was the most helpful source of information when applying to your major?



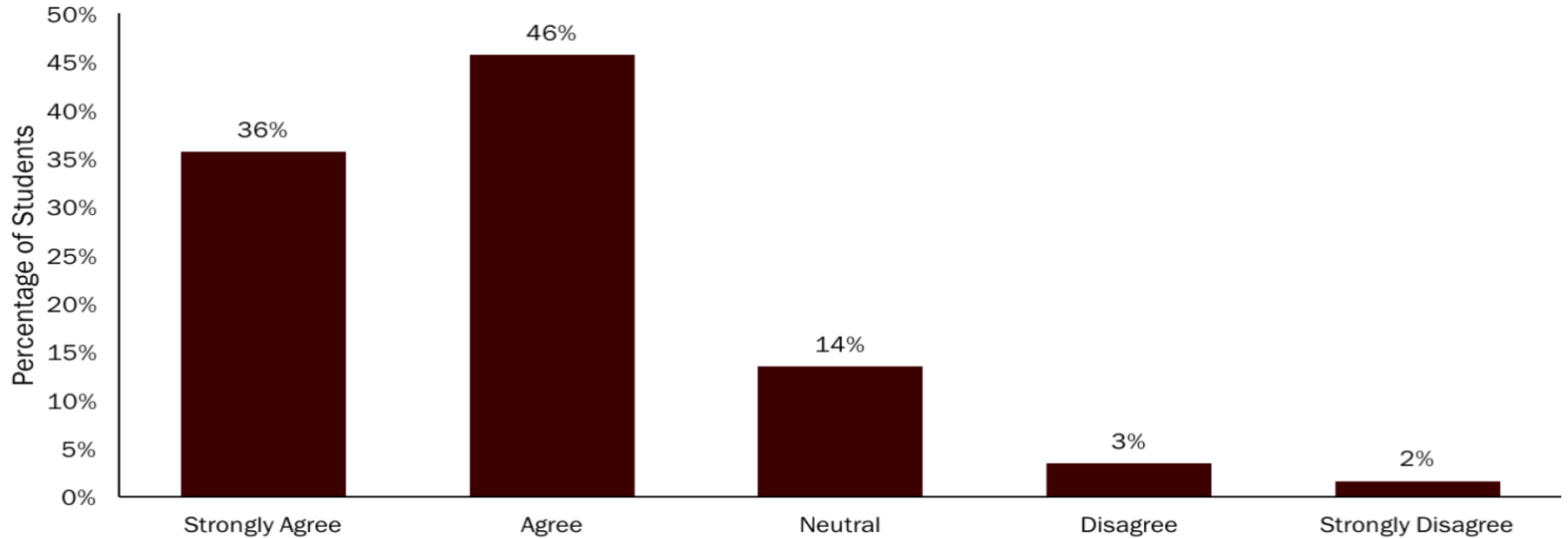
Graduate Environment

Asked to only graduate students



Responses: 984

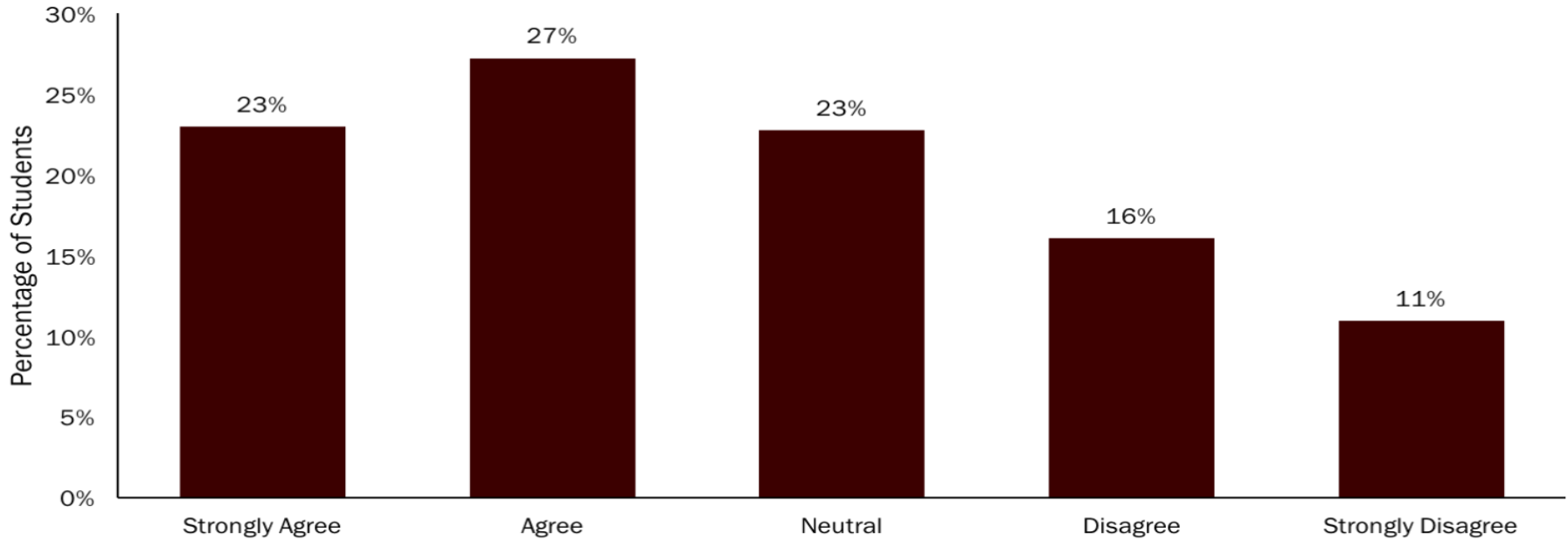
Please rank your agreement with the following statement: My department creates a welcoming environment.





Responses: 984

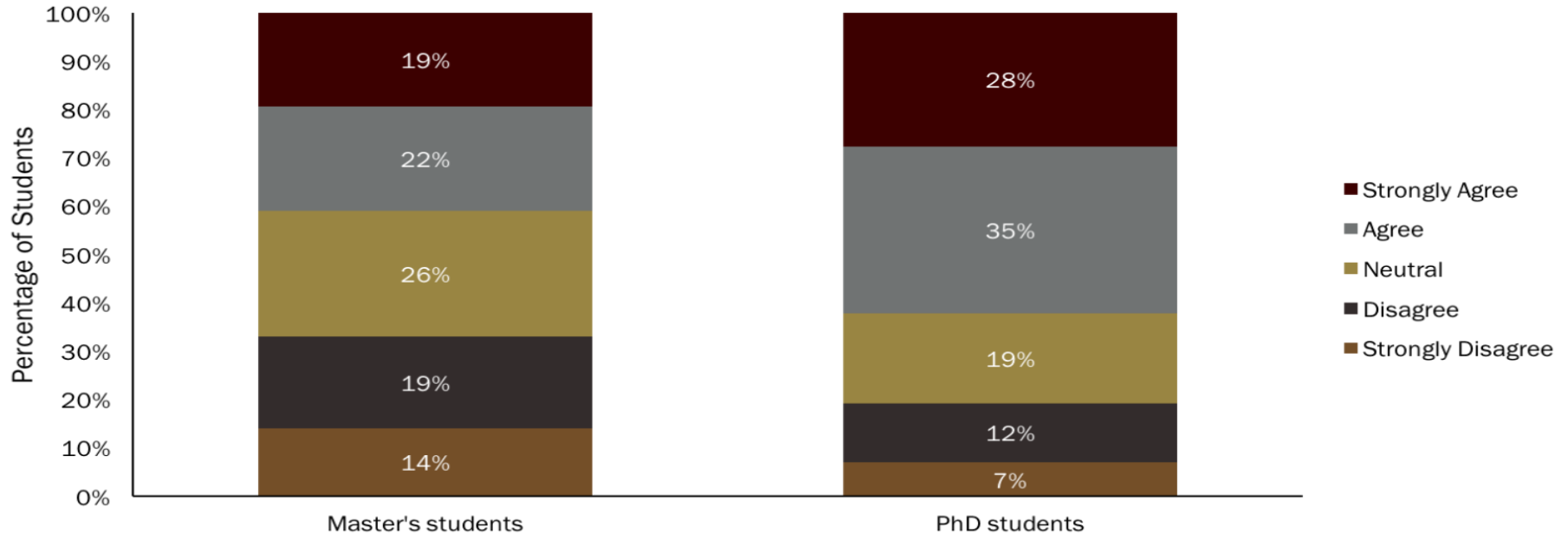
Please rank your agreement with the following statement: I am given adequate financial support to succeed in graduate school.





Responses: 984

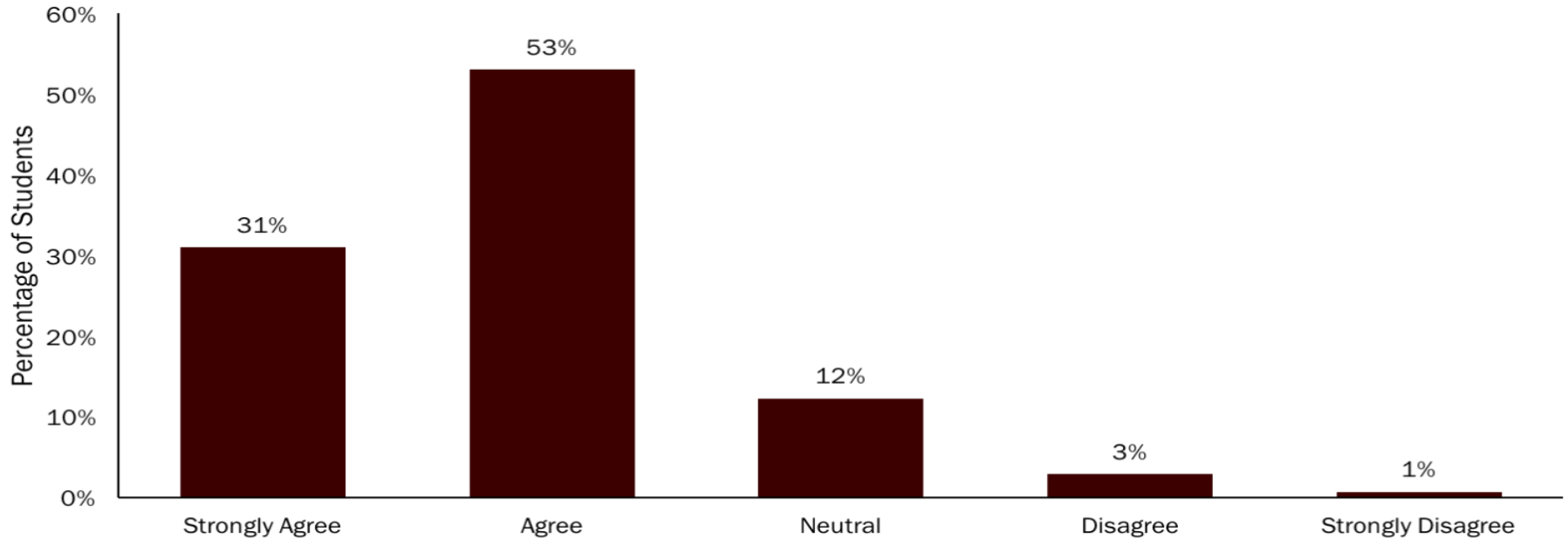
Please rank your agreement with the following statement: I am given adequate financial support to succeed in graduate school.





Responses: 984

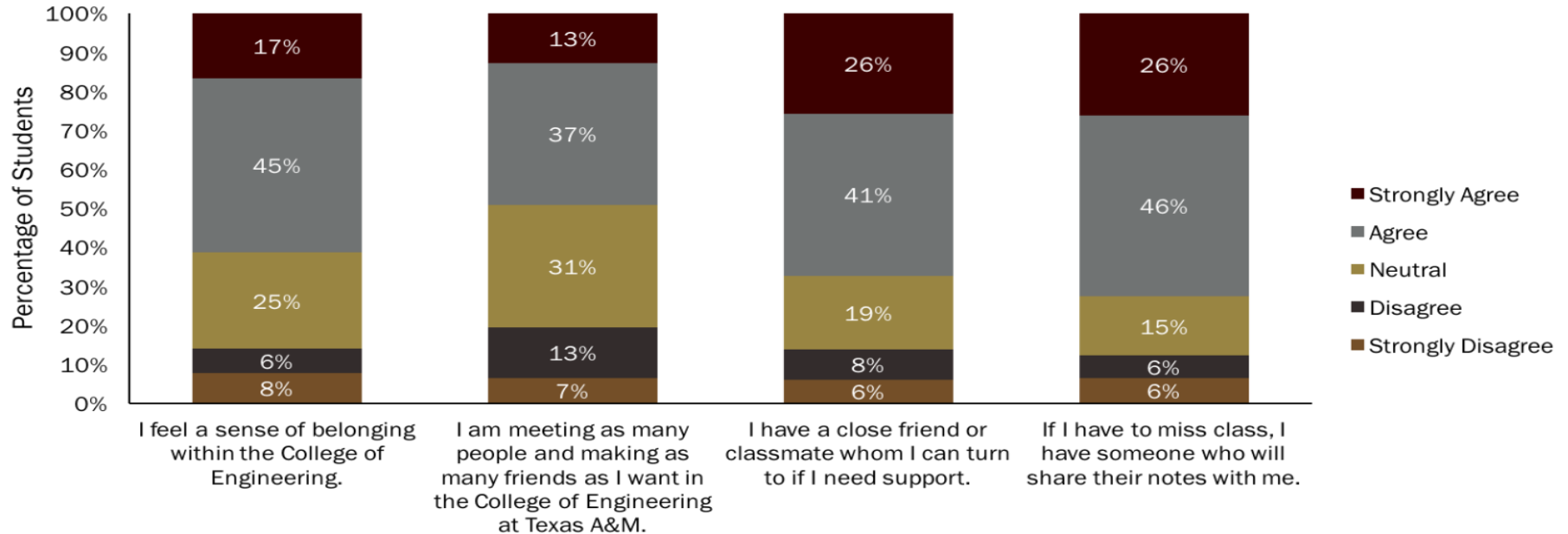
Please rank your agreement with the following statement: I am able to succeed academically in my department.





Responses: 983

Please indicate the extent to which you agree or disagree with the following statements.



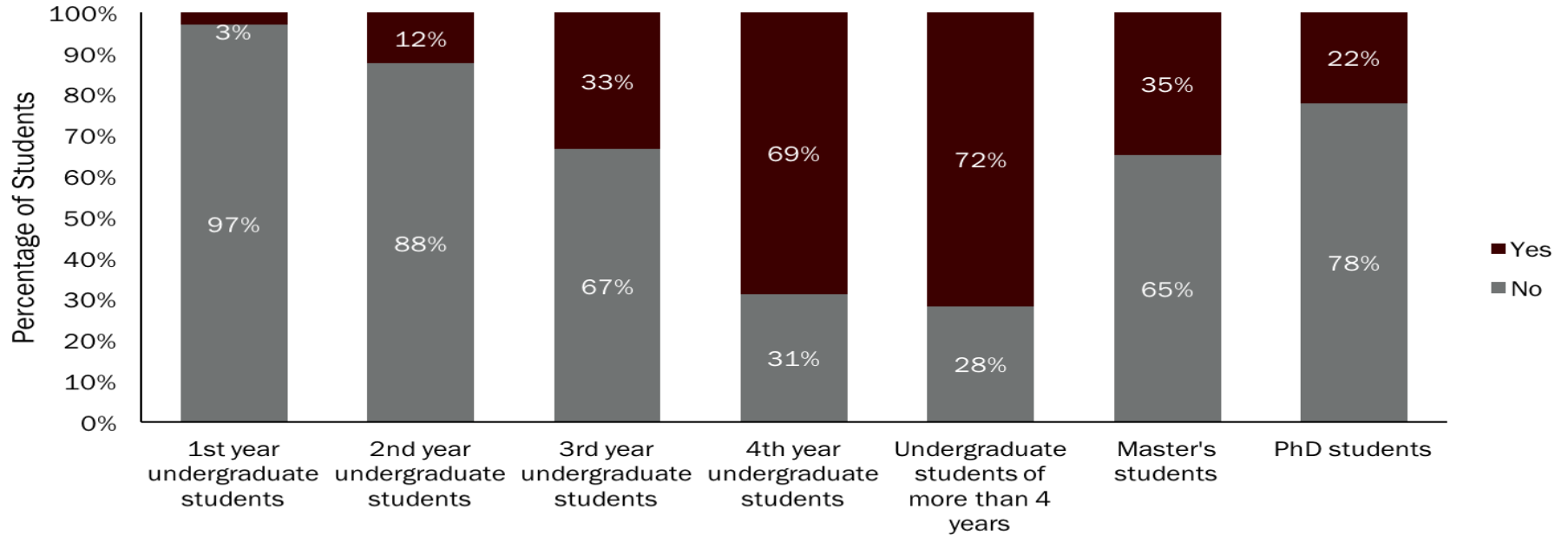
Career/Post-graduation

Asked to all students

Responses: 4538



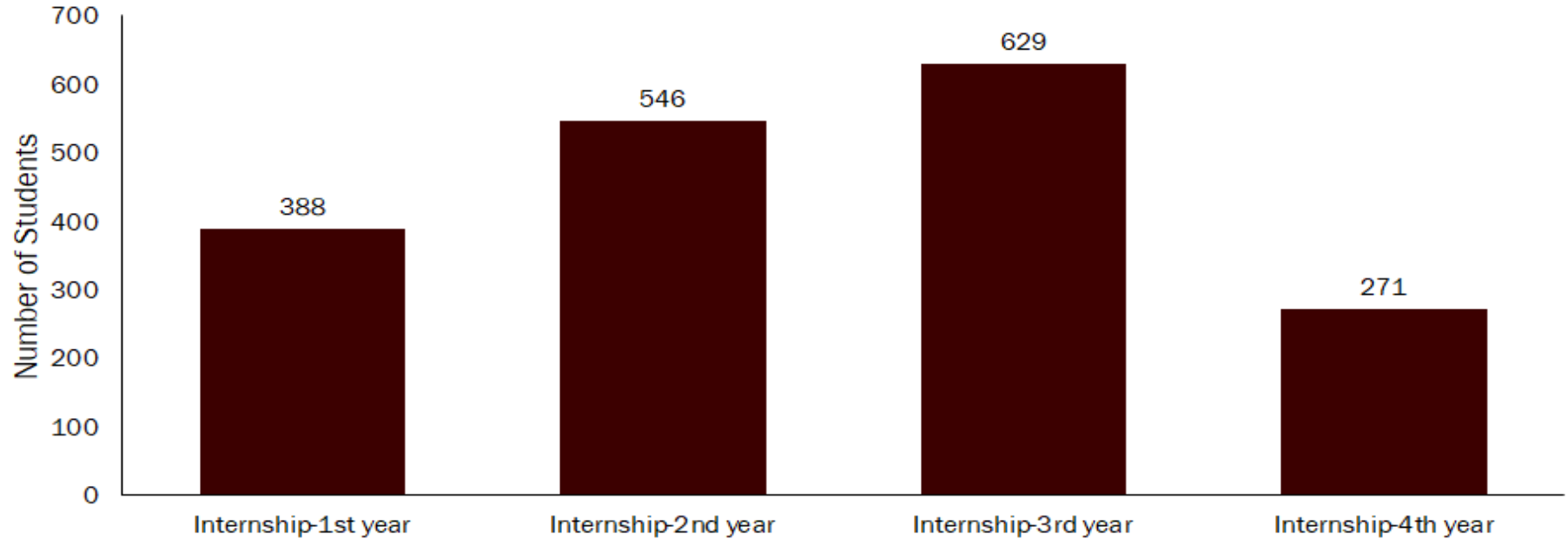
Have you completed an internship or co-op?



For those who had an internship
Responses: 1834



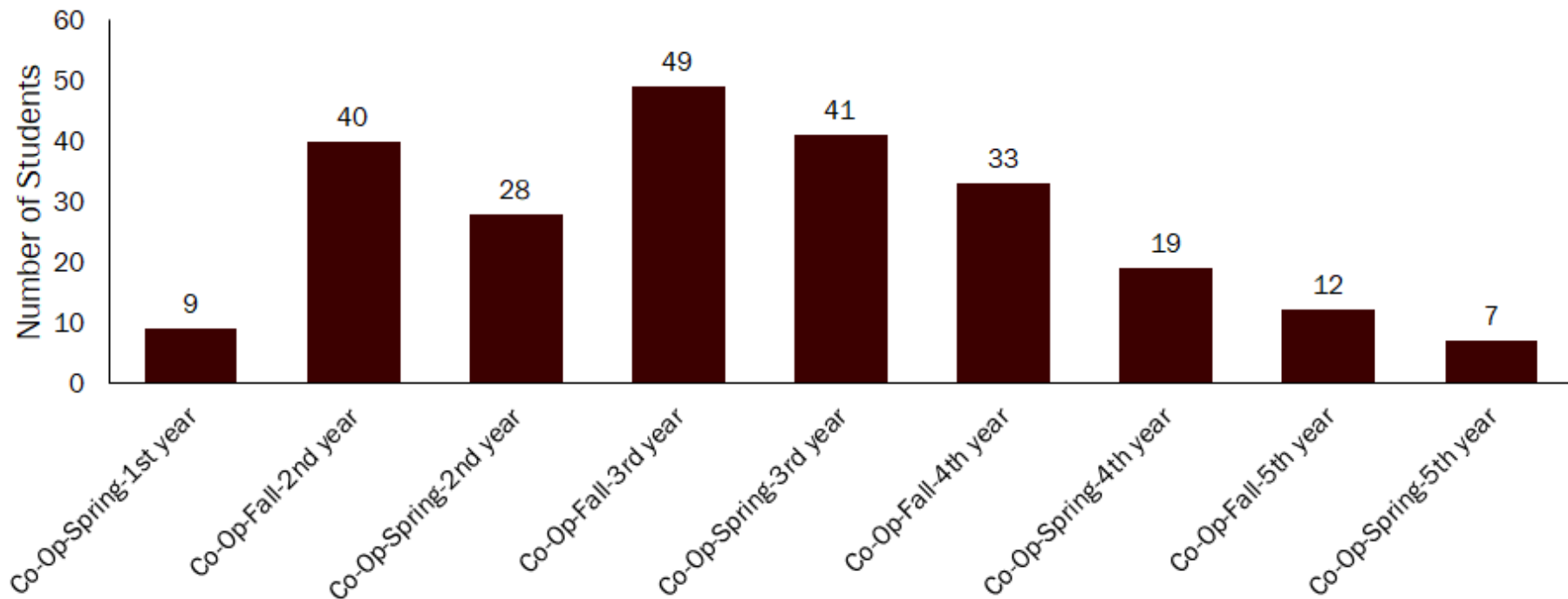
Classify your internship:



For those who had a co-op
Responses: 238



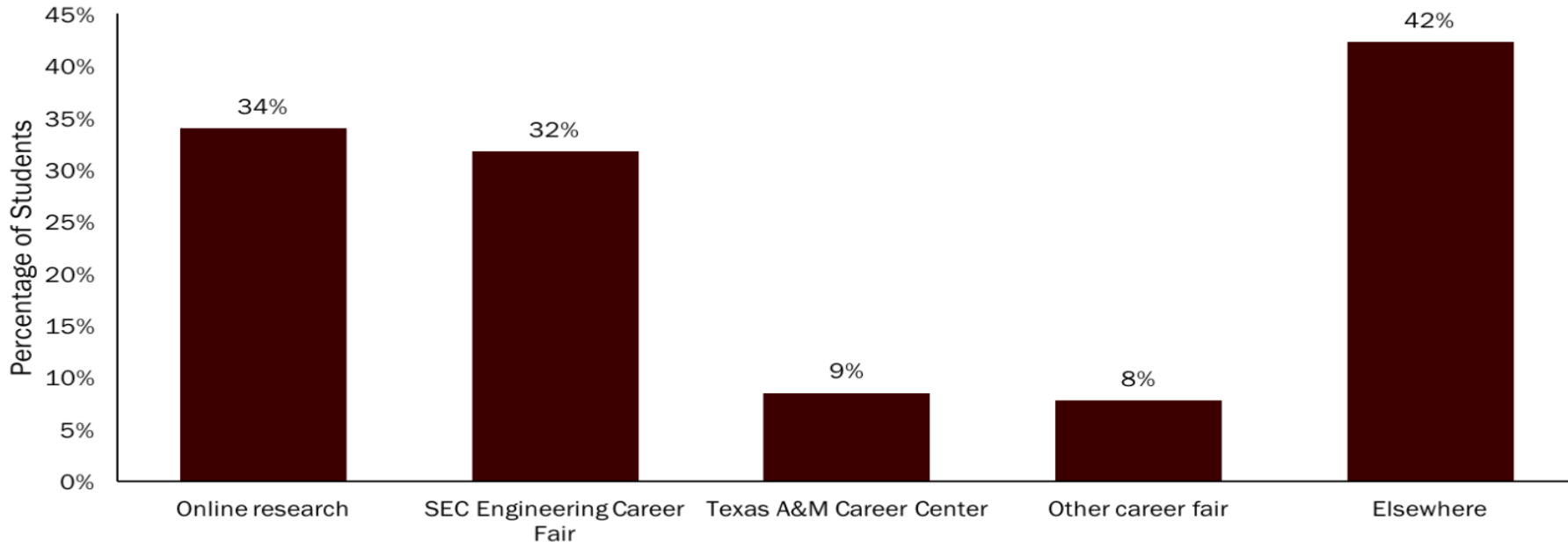
Classify your co-op:



Asked to those with an internship/co-op
Responses: 1386



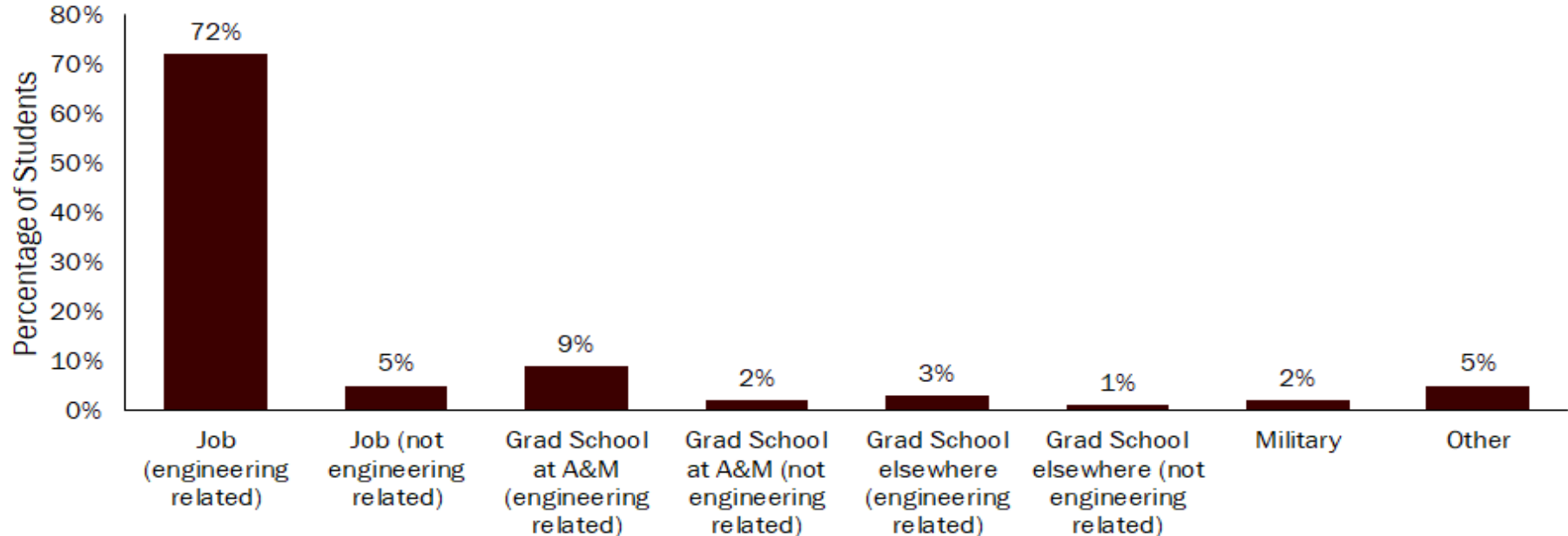
How did you obtain your internship/co-op opportunity? (Select all that apply)



Asked to those graduating in December 2018 or May 2019
Responses: 1046

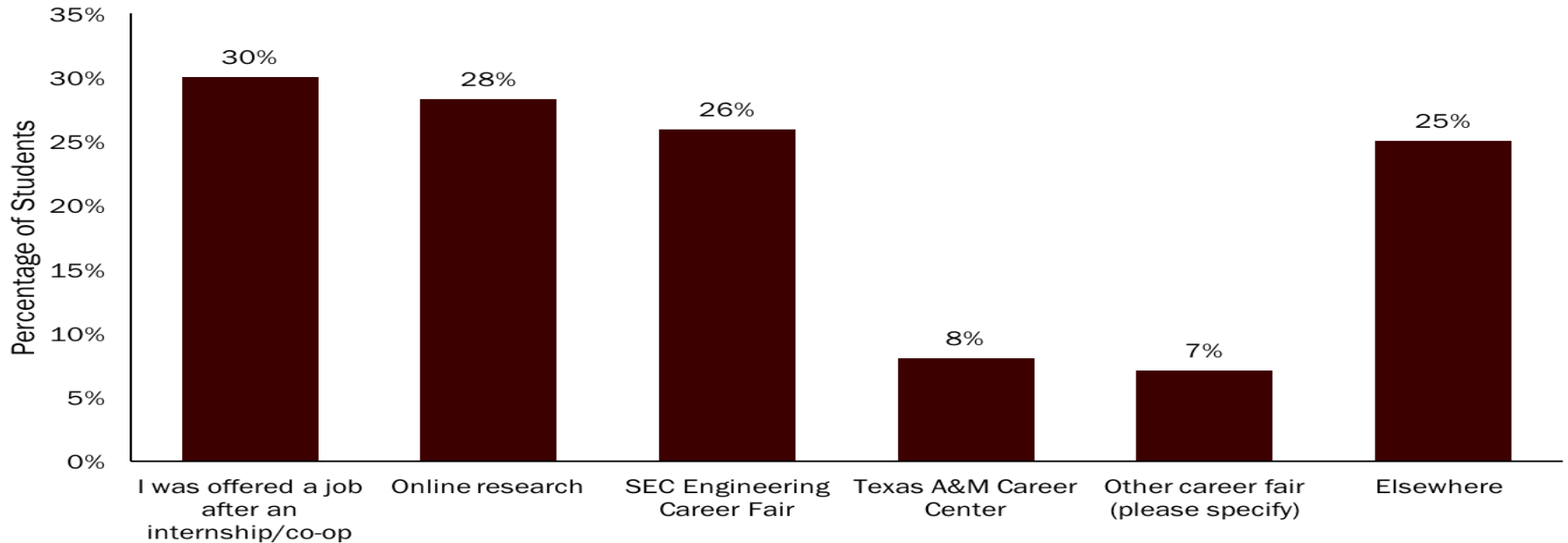


Which one of the following will you pursue after you graduate?



Asked to those those graduating who are pursuing a job
Responses: 806

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



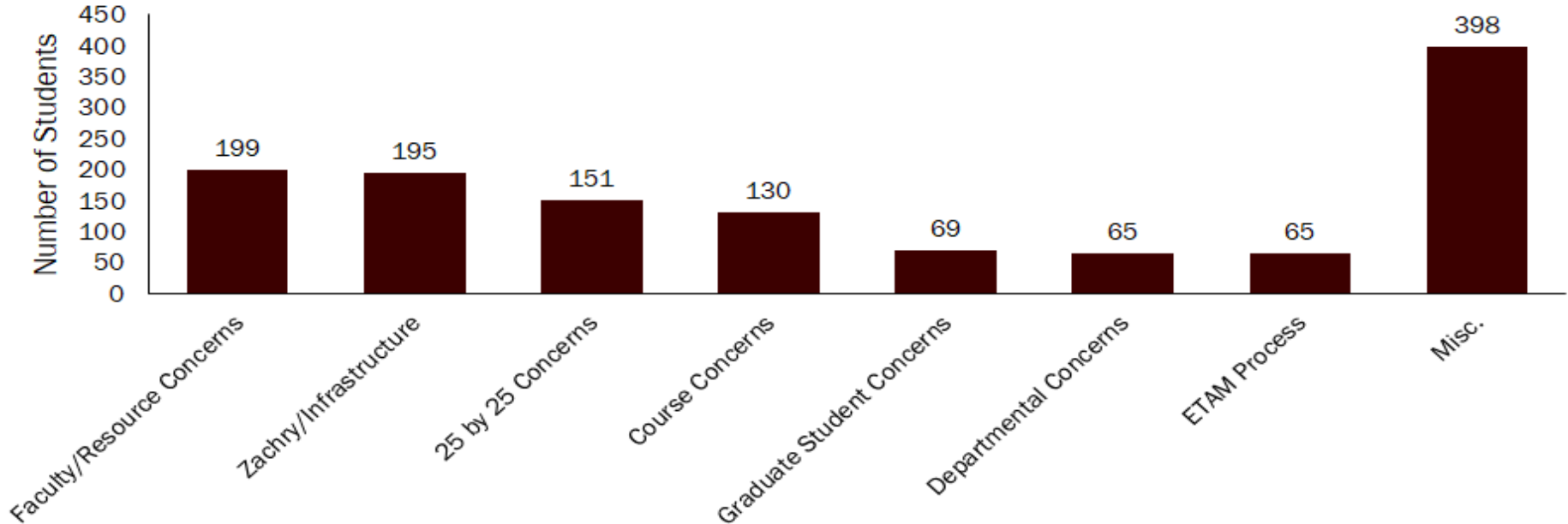
Closing Question

Asked to all students



Responses: 876

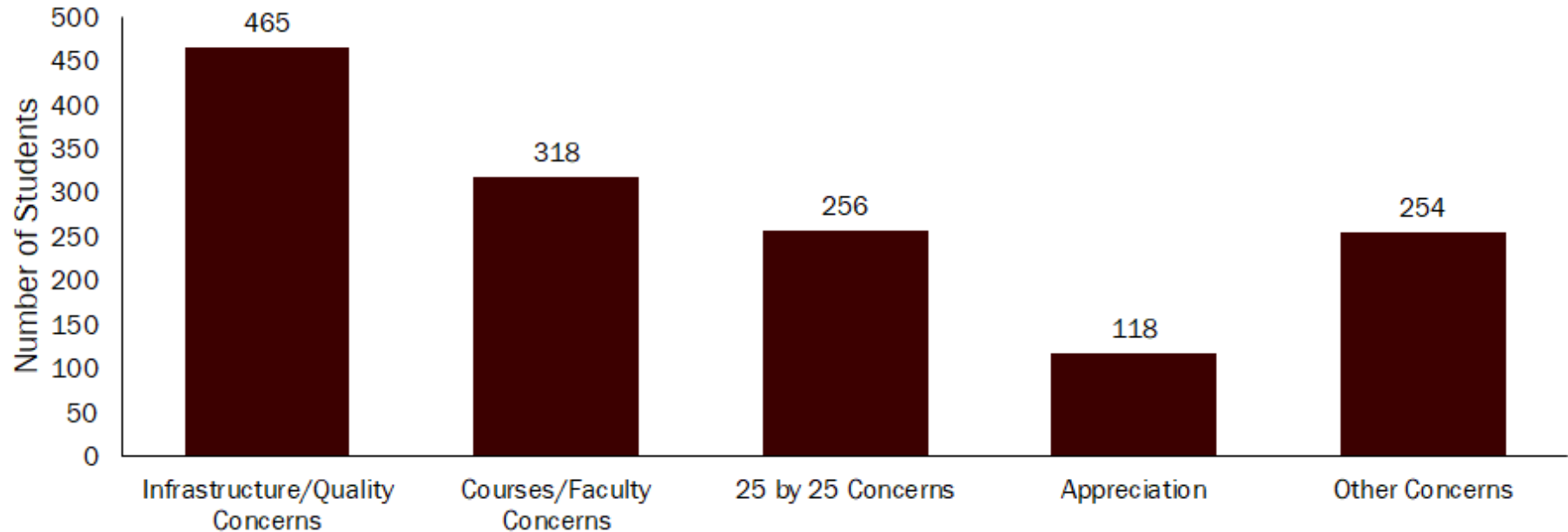
Open-Ended: Do you have any additional comments or concerns regarding engineering at Texas A&M that you were unable to express in your survey responses?





Fall 2017 Responses

Open-Ended: Do you have any additional comments or concerns regarding engineering at Texas A&M that you were unable to express in your survey responses?





Responses: 876

Open-Ended: Do you have any additional comments or concerns regarding engineering at Texas A&M that you were unable to express in your survey responses?

ETAM Process

- “Computer Engineering has too much influence in the first year general engineering. The first year as a general engineer should focus on learning about the different majors and not helping students suffer through computer engineering for a year and cementing their resolve to not be a computer engineer.”

Faculty/Resource Concerns

- “Overall, it seems that there is a mentality of minimal work for acceptable grades among students in engineering...Professors should be encouraged to reinforce taught material so that classes have higher trends on exam scores without artificial grade inflation.”

Responses: 876



Open-Ended: Do you have any additional comments or concerns regarding engineering at Texas A&M that you were unable to express in your survey responses?

Appreciation

- “TamU Engineering Education is valuable because of the Culture of Texas A&M more so than anything. Encouraging students to get involved and find their niche on campus will produce the highest quality of engineers possible.”
- “I appreciate the intentional nature of events in the College of Engineering and would [like] to see that attitude applied to person to person interaction within the engineering community.

Misc.

- “I worry that the motives of the engineering department are more focused on external appeal rather than internal student development.”



Responses: 876

Open-Ended: Do you have any additional comments or concerns regarding engineering at Texas A&M that you were unable to express in your survey responses?

Faculty/Resource Concerns

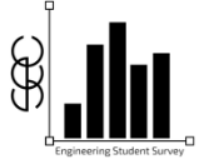
- “Hire professors that are there to teach and not just for their research. Some professors can manage both. But some of them it's obvious they just care about research. Pay attention to student pica reviews of professors.”

Zachry/Infrastructure

- “It feels like [Zachry] was made solely to impress donors and prospective students. Please, if there's one thing that comes of this, reconsider the after-hours classroom policy. Allow students to study in the location that is supposed to be for engineers. Zachry classrooms are one of the few places on campus where 8+ students can easily get together and study engineering work. Stop kicking us out of classrooms and just let us try to learn.”



2018-2019 Legislation Committee



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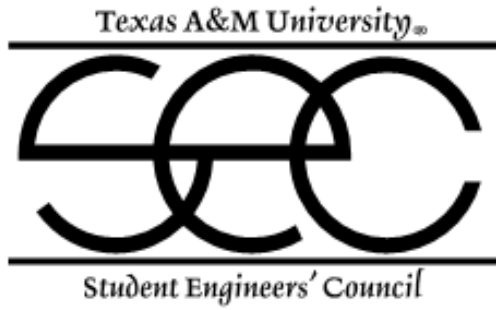
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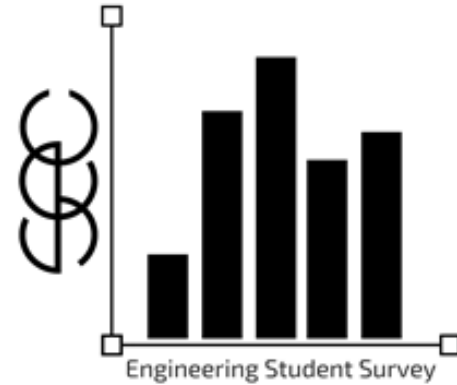
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ENGINEERING STUDENT SURVEY



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