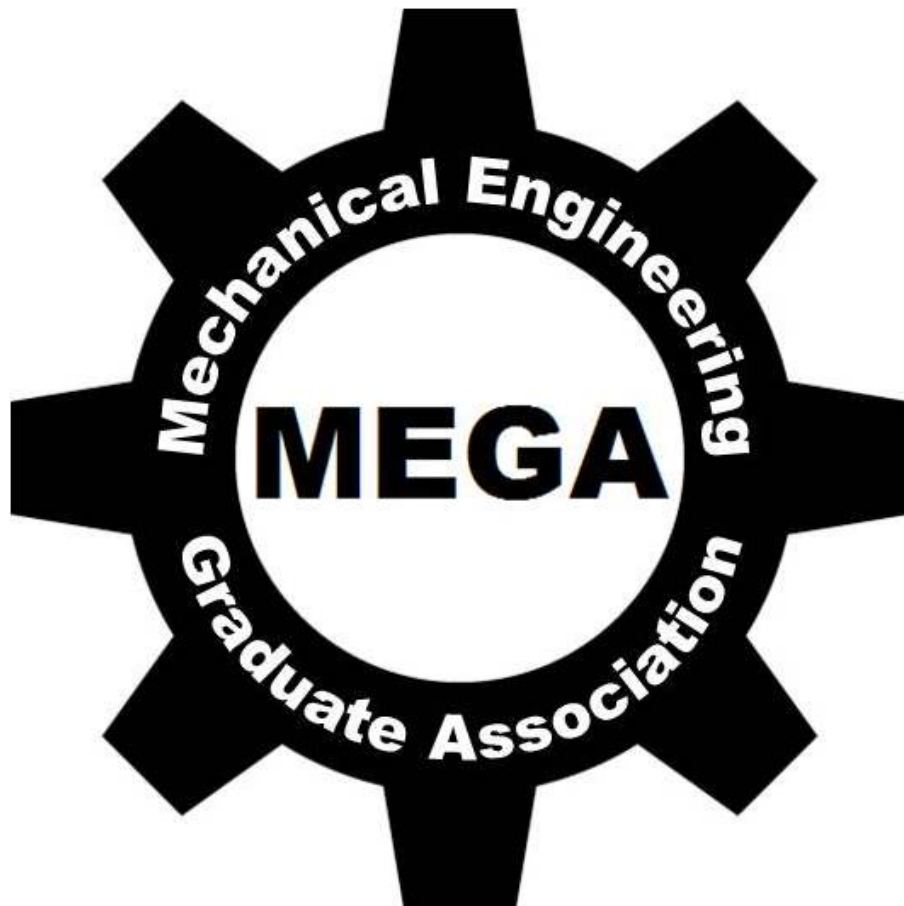


MEGA Quality of Life Report 2017-2018



Prepared by the MEGA Executive Board

May 16, 2018

Executive Summary

The Mechanical Engineering Graduate Association (MEGA) administered its second annual quality of life survey from March 7th, 2018 to March 23rd, 2018. MEGA received 79 responses from 42 doctoral ME students, 22 masters ME students, 1 doctoral BME student, 2 doctoral alumni and 12 masters alumni. The responses represent 55% of current doctoral ME students, and 22% of current masters ME students.

Based on the results of the survey, MEGA identified several key issues to address with the department on behalf of the student body. The requests cover the highest priority and most widespread problems uncovered by the survey that cannot be corrected by MEGA alone. The key issues are listed below.

Request	Description
Update the department's website.	The website has out-of-date and misleading content. Academic policies should be clearly communicated through the website.
Improve the experience of TAs.	TAs are given no formal training and are not matched well with the courses they teach.
Continue improvements to TA room.	The room echoes and does not have easily accessible power. It's not currently possible to project or display a computer.
Improve communication.	The department does not announce changes in staffing, or changes to staff job responsibilities.
Restart seminars.	Very few seminars were offered in the spring directly by the department. Seminars in the fall lacked a variety of topics.
Improve alumni relations.	Current students and alumni are not satisfied with the current levels of engagement with one another.

Methodology

The survey was composed of 14 sections: program information, doctoral-specific questions, masters-specific questions, alumni-specific questions, teaching preparation, academics, academic advising, social life, career services, department website, facilities, MEGA events, demographics, and free response. These topics were chosen specifically because they are areas in which MEGA either enact change itself, or reach out to other entities to ask them to enact change.

Based on information collected in the program information section, respondents were initially routed to one of three possible sections: doctoral, masters, or alumni-specific questions. From there, all masters students were sent to the academics sections. Any doctoral student who indicated that they had held a teaching assistant position in the department was then brought to the teaching preparation section. They were then sent to the academics section. Alumni were given the option to answer quality of life questions. If they answered yes, they were sent to the academics section. Otherwise, they were sent to the end. Once respondents got to the academics section, they progressed through the survey sequentially.

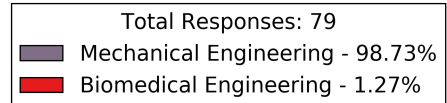
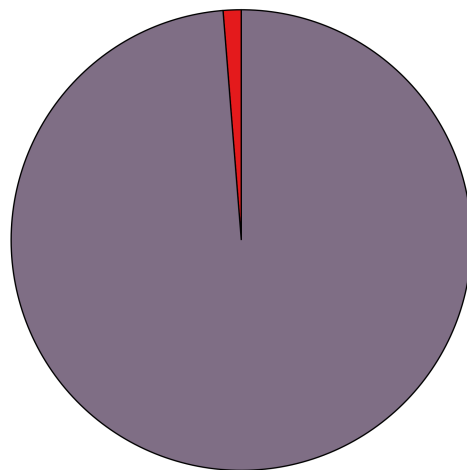
The survey was composed of three different question types: single-response categorical questions, multiple-response categorical questions, and single-response rating questions. All single-response rating questions were scored on a scale from one to five. One indicated a poor rating and five indicated an exceptional rating (e.g., totally dissatisfied to totally satisfied). Some single-response ratings questions also included a “not applicable” option.

Contents

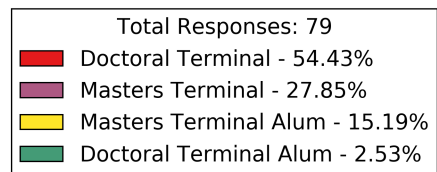
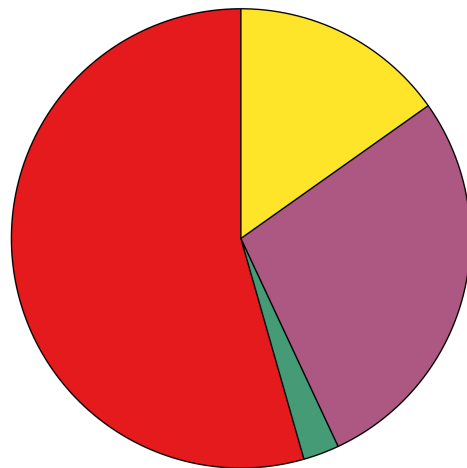
Contents	i
1 Program Information	1
2 Doctoral Specific Questions	3
3 Teaching Preparation	7
4 Masters Specific Questions	10
5 Alumni Specific Questions	12
6 Academics	14
7 Academic Advising	18
8 Social Life	21
9 Career Services	23
10 Department Website	25
11 Facilities	26
12 MEGA Events	28
13 Demographics	31
14 Free Response	34

Program Information

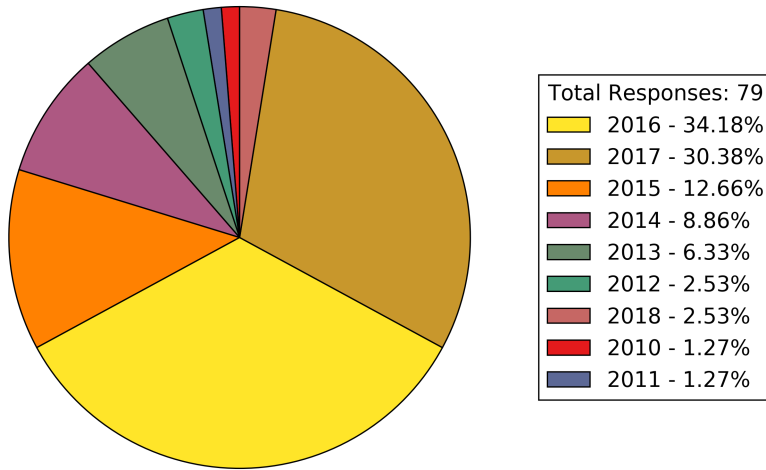
To which department do you belong?



What is your degree program?

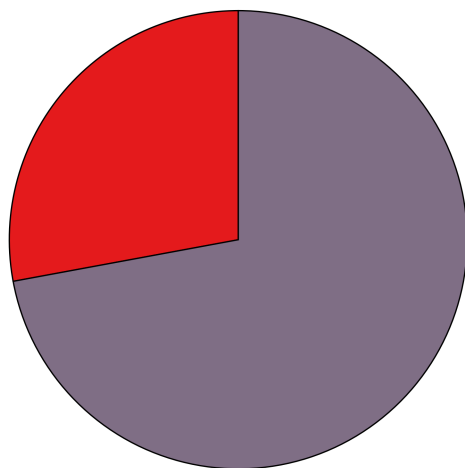


In which year did you begin graduate study in Columbia's Mechanical Engineering program?



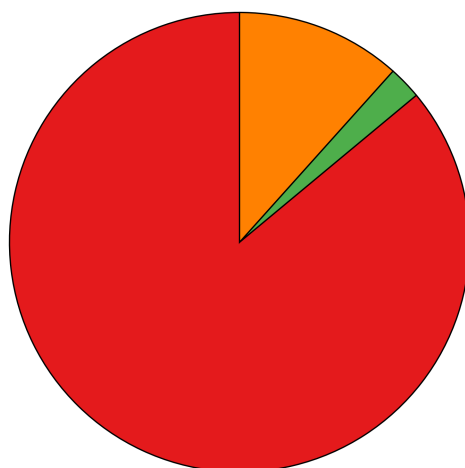
Doctoral Specific Questions

Was it clear to you who your PI would be before starting your program at Columbia?



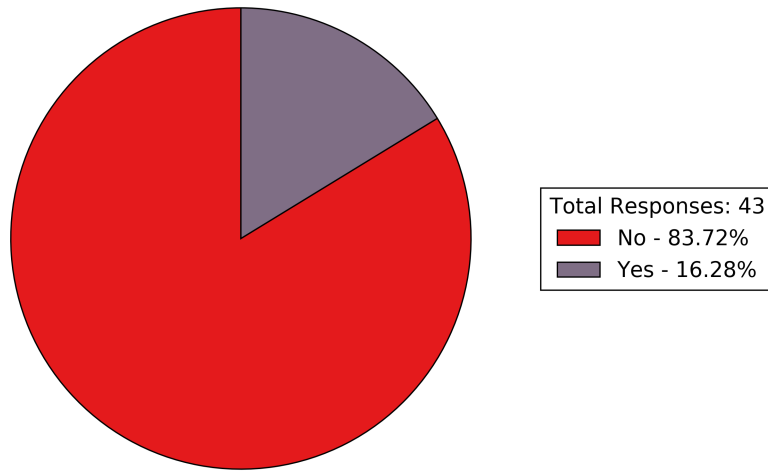
Total Responses: 43	
Yes - 72.09%	
No - 27.91%	

Did you have any trouble finding a PI when you joined Columbia?

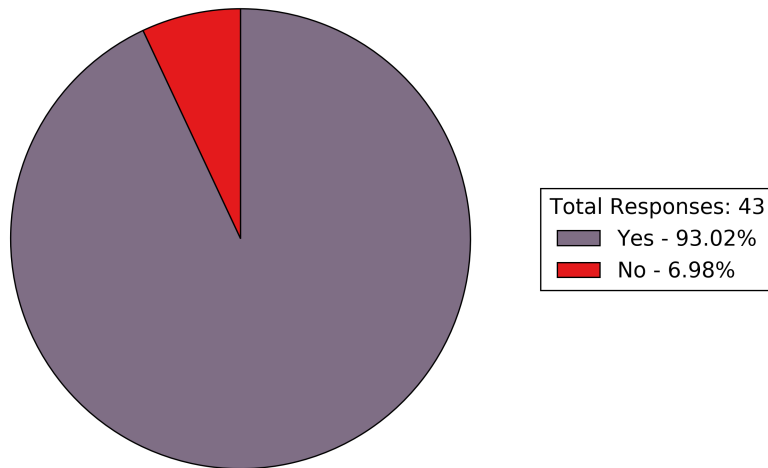


Total Responses: 43	
No - 86.05%	
Yes - 11.63%	
Prefer not to say - 2.33%	

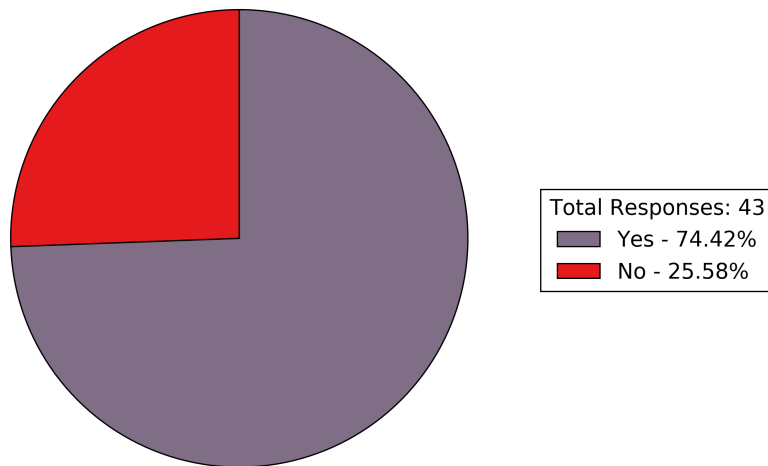
Have you changed your PI since joining Columbia?



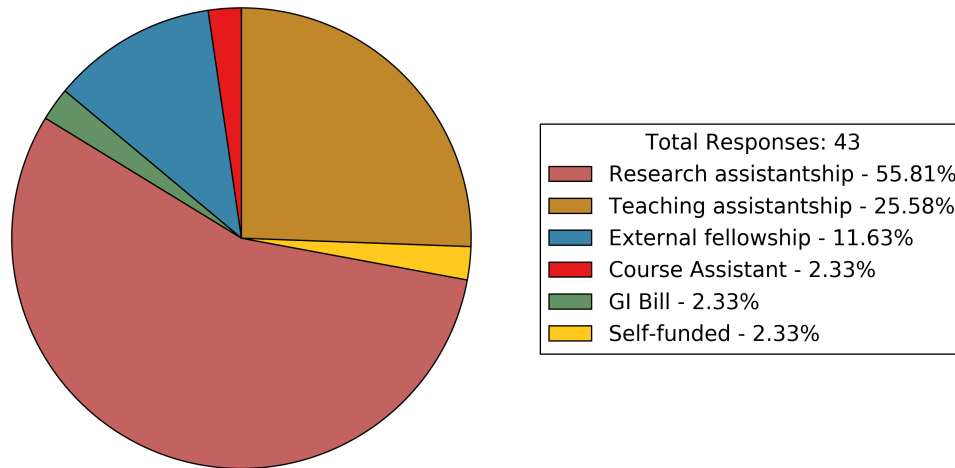
Are you a fully funded student?



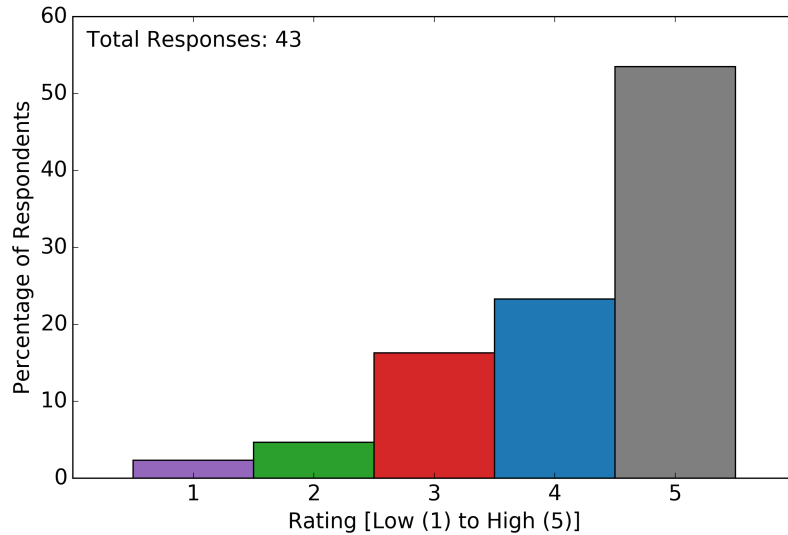
Have you ever been a teaching assistant at Columbia?



What is your current funding source?



How secure do you feel with your funding for the remainder of your degree program?



Summary of Suggestions to Improve the Doctoral Program:

- Publish a loose schedule of milestones (MS, qualification exam, MPhil, proposal, defense, etc.). Make clear how flexible each requirement is.
- Publish a breakdown of charges that indicates which charges students are responsible for paying.
- Give explicit requirements for proposals.
- Institute annual reviews between students and their PIs.
- Cap the number of semesters a student can be a teaching assistant.
- Hire a fluid mechanics faculty to teach advanced topics.
- Hold a campus tour at the beginning of the school year that showcases campus resources (libraries, dining halls, gym, etc.).
- Hold bonding events for new PhD students.
- Clarify degree requirements.

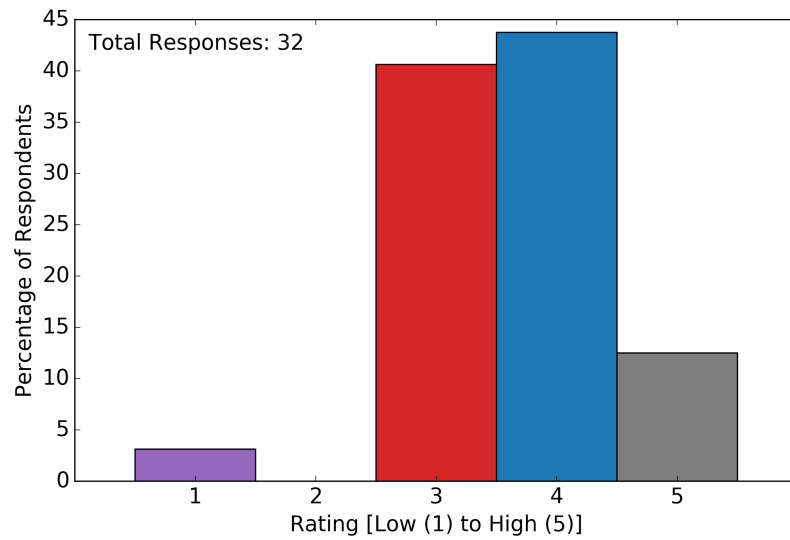
- Mandate lab safety and research ethics courses.
- Provide better access to fume hoods.
- Provide more opportunities to collaborate between groups.
- Offer more graduate courses that don't cater to the qualification exam.

Summary of Facilities Issues in Research Laboratories (Room Numbers Suppressed):

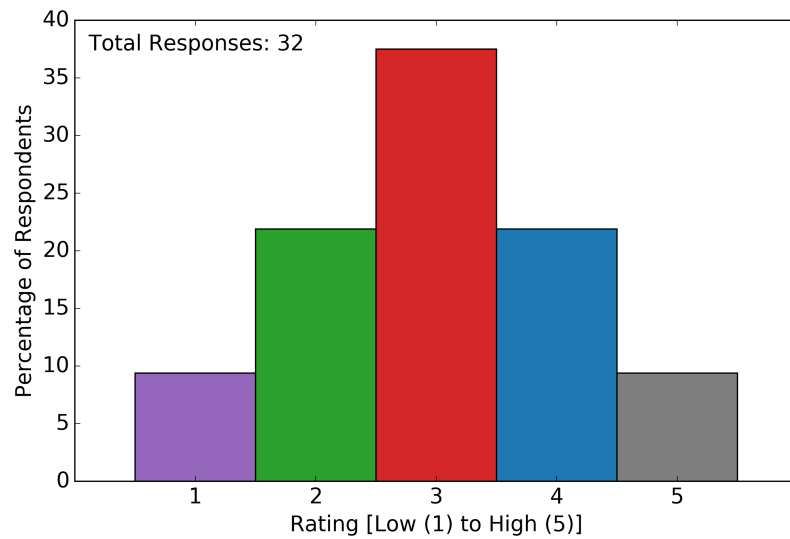
- HVAC – temperature and humidity
- Burnt out lights
- Broken outlets
- Broken chemical hood
- Rooms need renovation
- No windows

Teaching Preparation

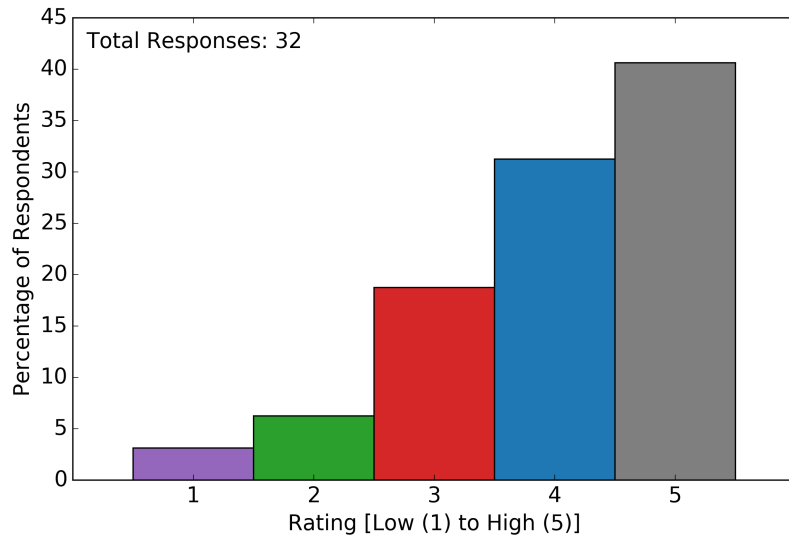
How would you rate your overall satisfaction with being a teaching assistant at Columbia?



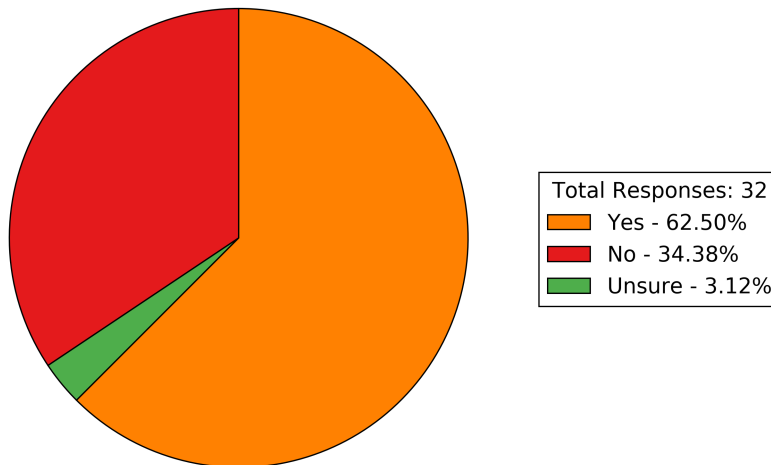
How would you rate your overall satisfaction with the teaching preparation you received prior to being a teaching assistant?



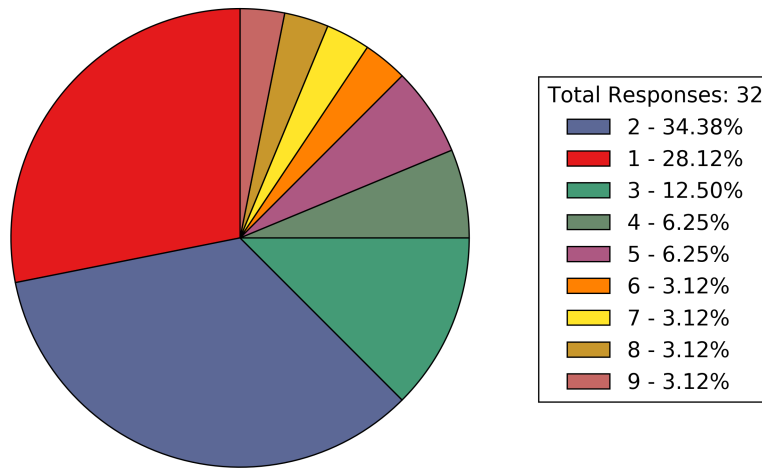
How strongly do you value teaching preparation?



Are you aware of the teaching-focused programming offered at Columbia's Center for Teaching and Learning?



How many semesters have you been a teaching assistant at Columbia?

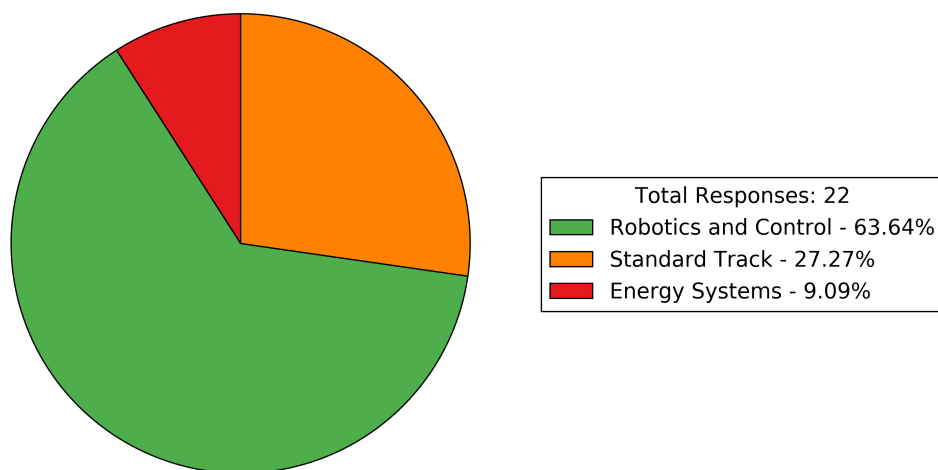


Summary of Suggestions to Improve Teaching Preparation:

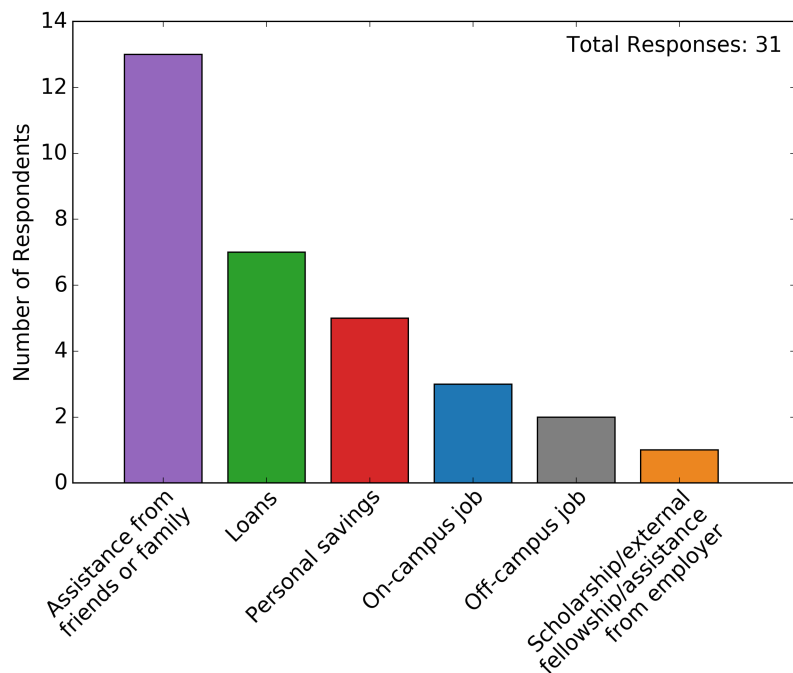
- The department should encourage a culture of TAs valuing quality teaching.
- Mandate teaching training through the Center for Teaching & Learning, or some other organization.
- Facilitate knowledge transfer between the previous and current TAs for a given course.
- Announce TA assignments earlier.
- Ask for student preferences before assigning classes to TAs. Some TAs end up in classes they've never taken.
- Better standardize and communicate the appropriate workload for an individual TA.

Masters Specific Questions

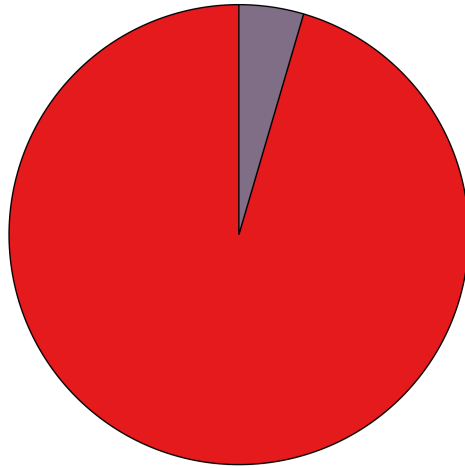
To which MS track program do you belong?



How are you financing your education?



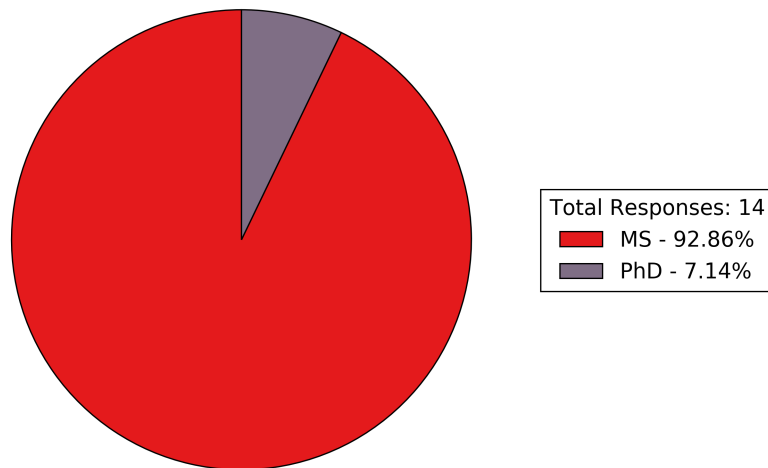
Do you work a full time job in addition to your schooling?



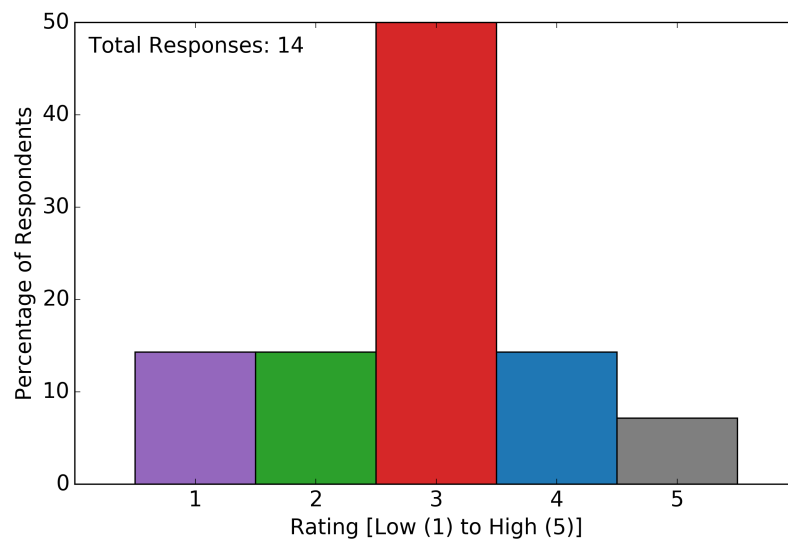
Total Responses: 22
No - 95.45%
Yes - 4.55%

Alumni Specific Questions

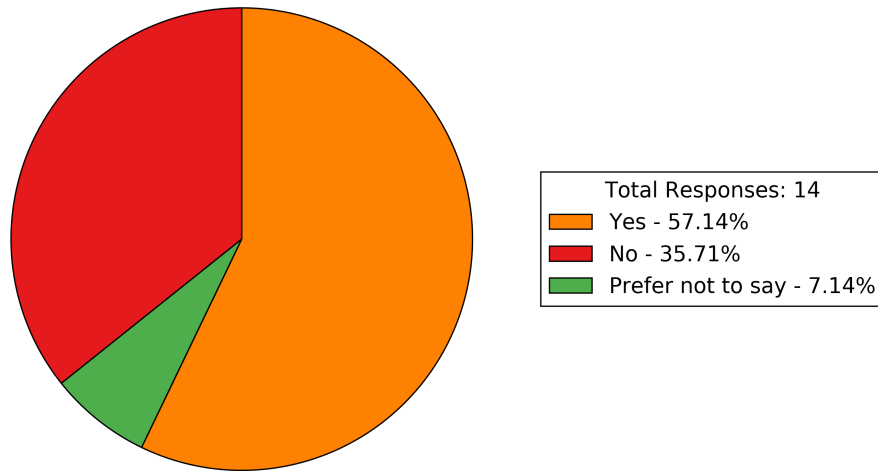
What is the final degree you received at Columbia?



How would you rate your overall satisfaction with alumni relations from the mechanical engineering department at Columbia?



Do you live in the NYC metropolitan area?

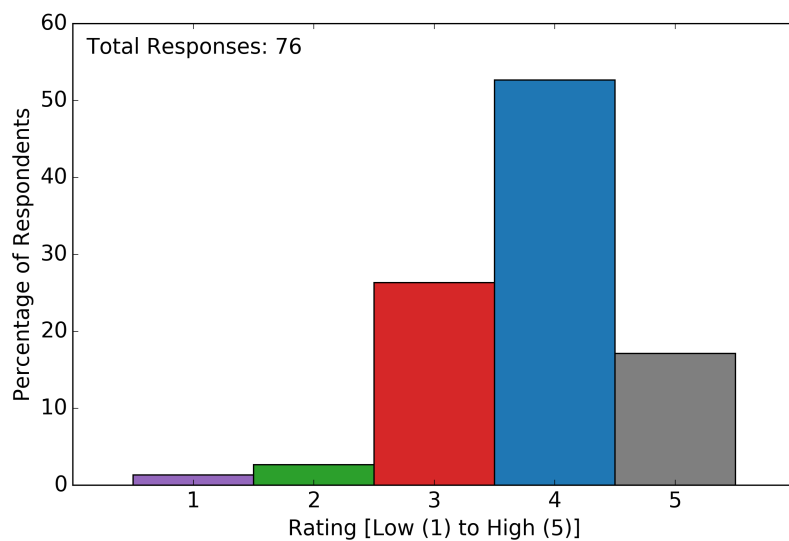


Summary of Suggestions to Improve Alumni Relations:

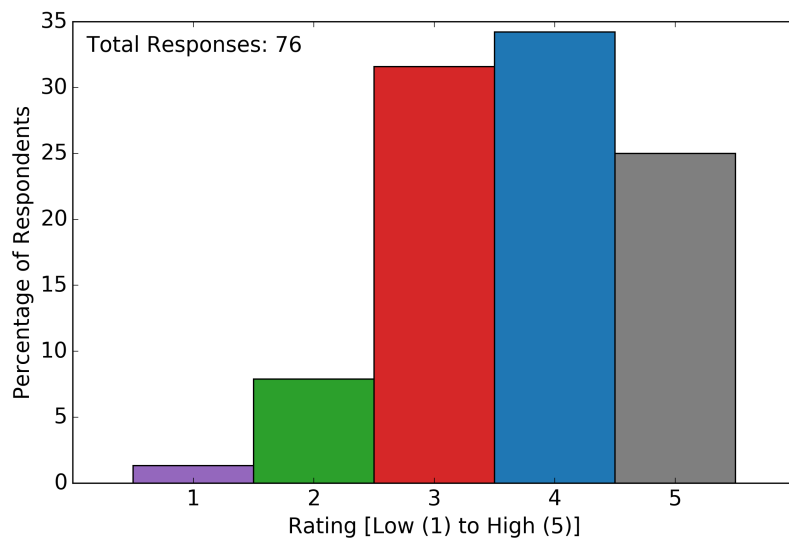
- Provide more networking opportunities for mechanical engineers.
- Provide graduation gifts.
- Provide a diploma holder.

Additional relevant suggestions can be found in the Career Services section.

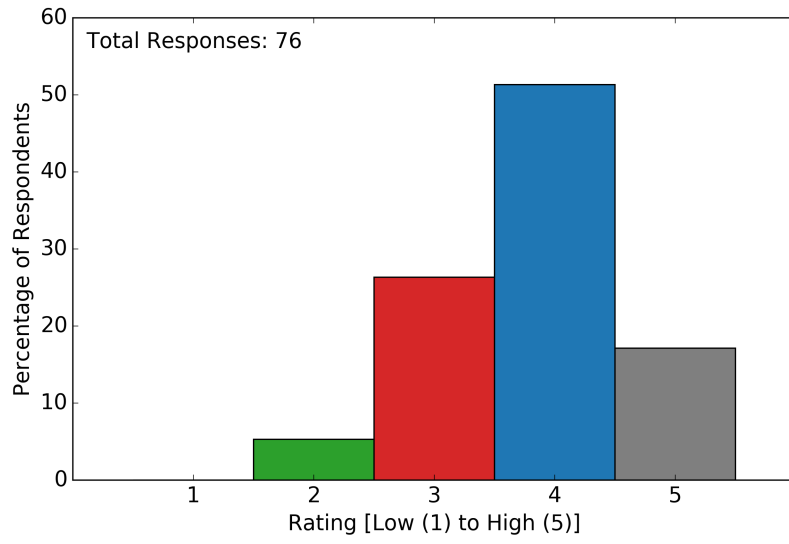
How would you rate your overall satisfaction with academics at Columbia?



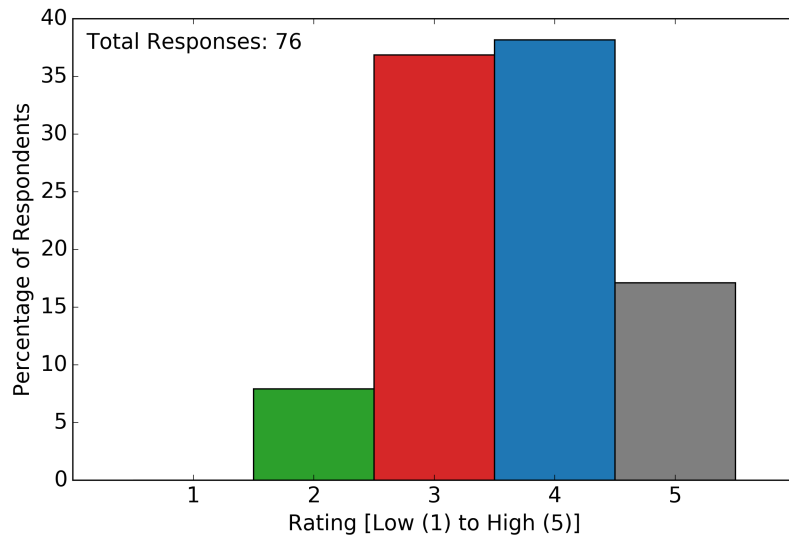
How would you rate your satisfaction with the following areas?
Accuracy of course descriptions

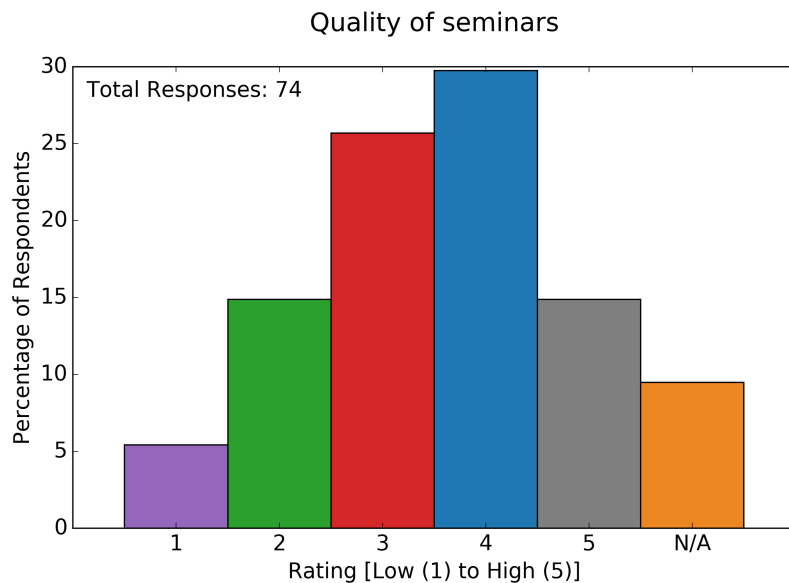
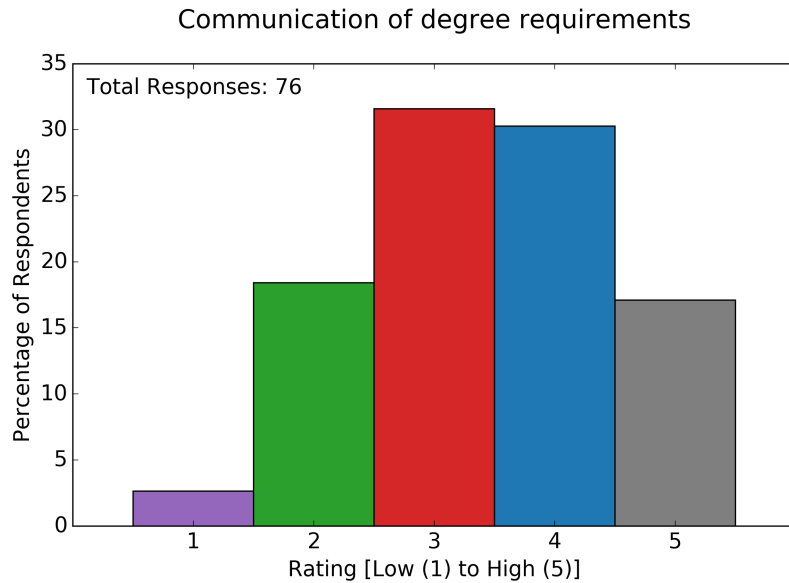


Quality of instruction from professors



Quality of instruction from TAs





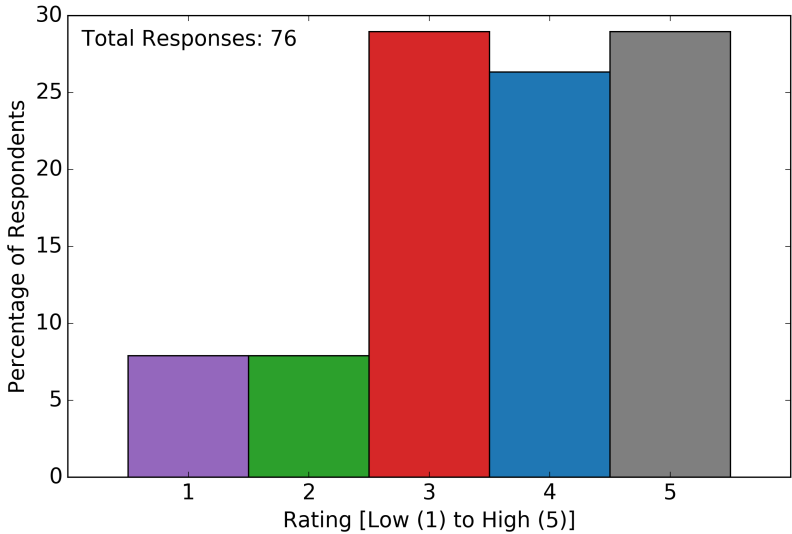
Summary of Ideas Expressed in Free Response:

- Degree requirements are not clearly communicated, and they seem to change each year.
- Offer daytime classes.
- Offer summer courses.
- Class sizes are large.
- Some teaching assistants have poor communication skills.
- Robotics courses:
 - Offer advanced courses in robotics and controls. The courses on the books are not offered consistently.
 - It is very difficult to get into CS courses related to robotics.
- Seminars:

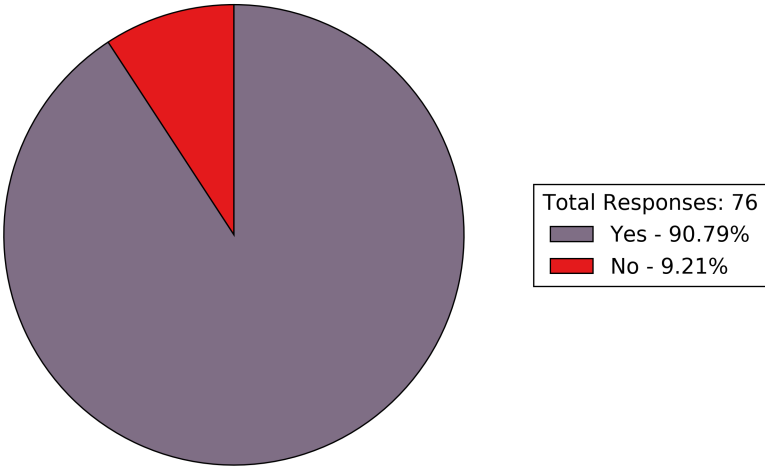
- The department stopped offering seminars in the spring without any explanation. They are missed.
- Seminars in the fall lacked variety.
- Flexibility of attending seminars outside mechanical engineering is appreciated.

Academic Advising

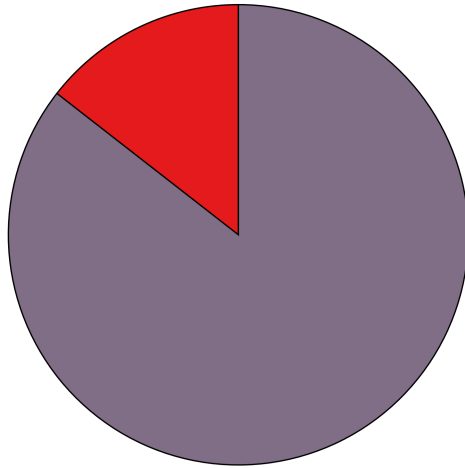
How would you rate your overall satisfaction with academic advising at Columbia?



Do you know who your academic adviser (or PI if you are a doctoral student) is?

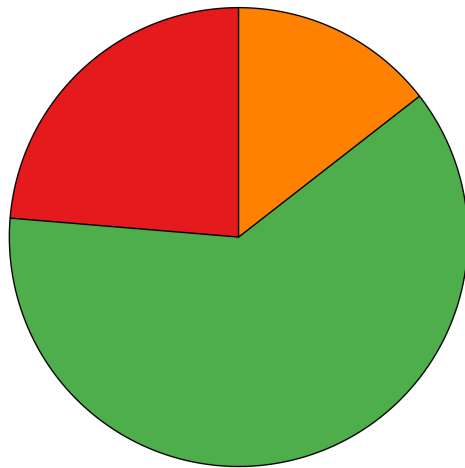


Have you spoken to your academic adviser (or PI if you are a doctoral student) since orientation?



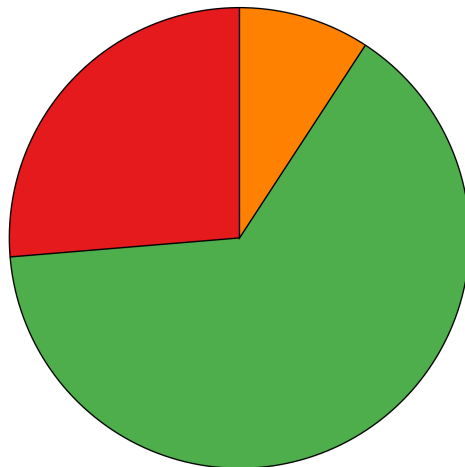
Total Responses: 76
Yes - 85.53%
No - 14.47%

Have you ever been incorrectly advised by an ME department staff member?



Total Responses: 76
No - 61.84%
Do not know - 23.68%
Yes - 14.47%

Have you ever been incorrectly advised by an ME department professor?

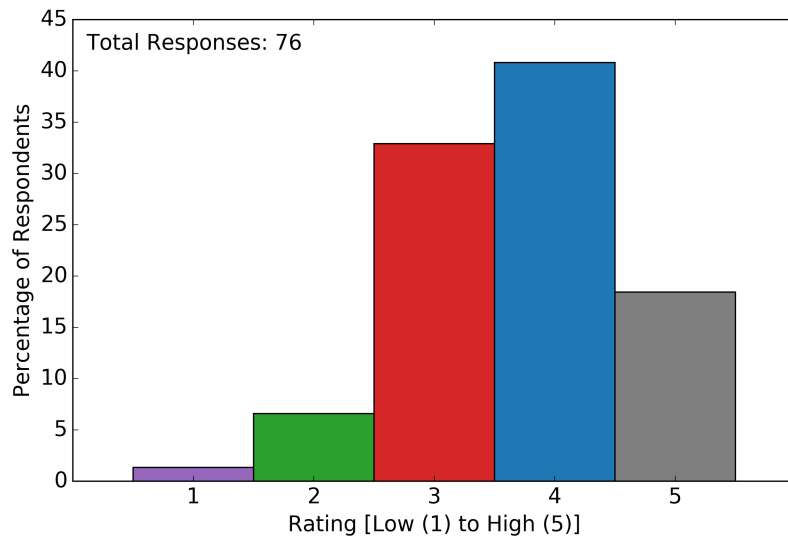


Total Responses: 76
No - 64.47%
Do not know - 26.32%
Yes - 9.21%

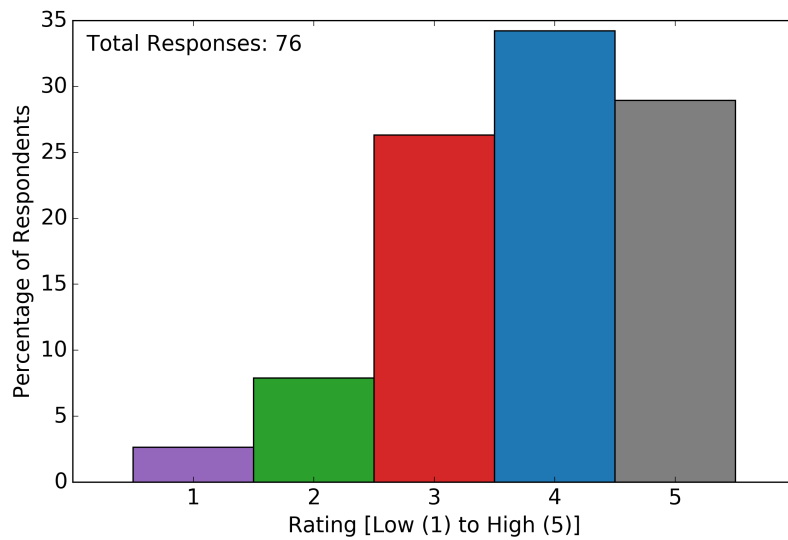
Summary of Ideas Expressed in Free Response:

- Academic advising is unstructured and unhelpful. Advisors do not help provide direction.
- Advisors can be hard to reach.
- Only the student affairs manager (Mel Francis) seems to know degree requirements. Faculty do not.
- Some PhD students expressed interest in an academic advisor separate from their PI.

How would you rate your overall satisfaction with the social life at Columbia?



How would you rate your satisfaction with the sense of community within the ME department?

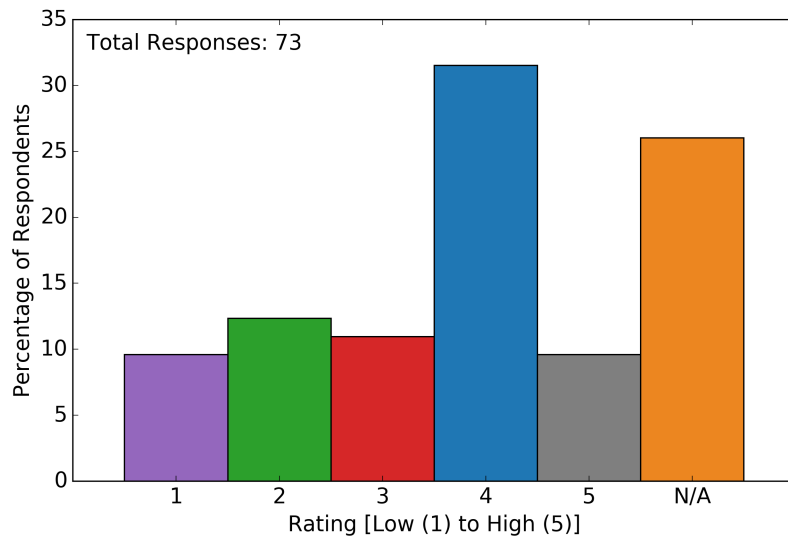


Summary of Ideas Expressed in Free Response:

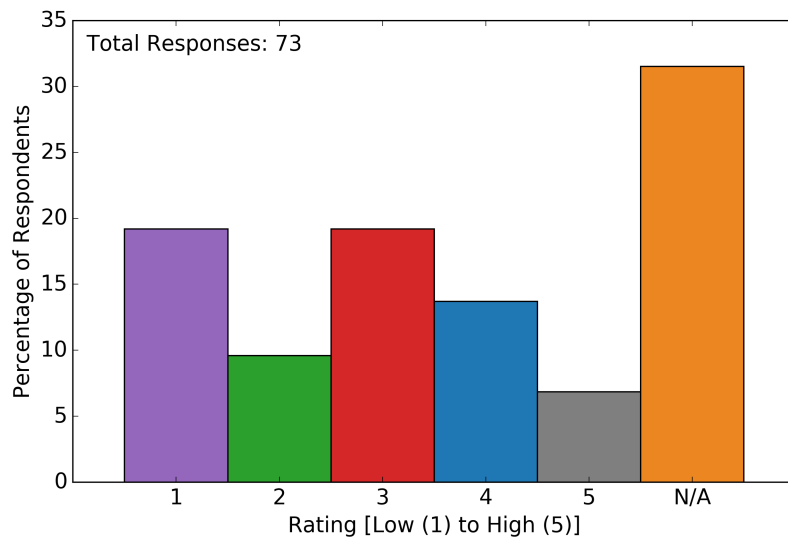
- MEGA helps, but should offer more social events throught the semester.

- Social events should be planned to meet non-ME students (engineering and non-engineering students).
- MEGA events should offer opportunities for significant others to attend.
- It would be nice if more professors attended socials.
- A lunch room just for ME students would be nice.

How would you rate your overall satisfaction with career services at Columbia?



How would you rate your satisfaction with career fairs at Columbia?



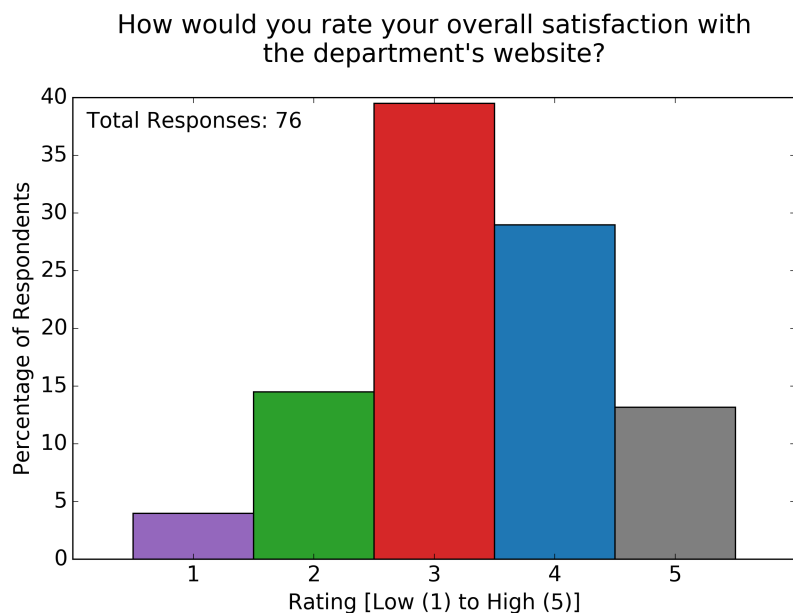
Summary of Ideas Expressed in Free Response:

- Career fairs do not have companies looking for mechanical engineers, especially

PhD students.

- More networking events with alumni or industry representatives should be held.
- Career opportunities for international students are lacking.
- Lists of companies that have hired Columbia graduates in the past would help in job searches.
- Expand the Professional Development and Leadership (PDL) program to include more workshops on hard skills.
- More resources and events need to be offered for PhD students who do not want to go into academia.
- Offer more opportunities to take professional headshots.

Department Website

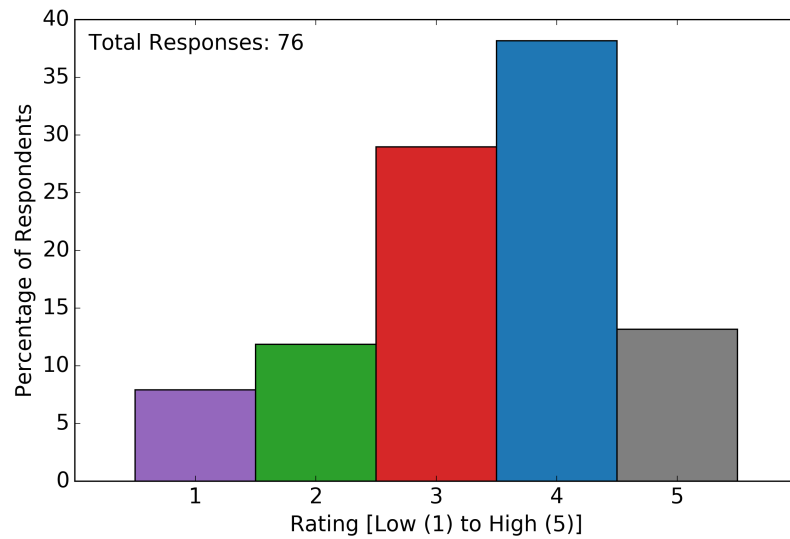
**Summary of Inaccurate Information Reported on Department Website:**

- Course listing is out of date or broken.
- Masters degree requirements are out of date. Website still implies 9000 level research courses can satisfy the 6000 level course requirement.
- Track course lists are out of date. Most courses listed are not offered.
- Some MS tracks are not officially recognized, but it seems like they are on the website.

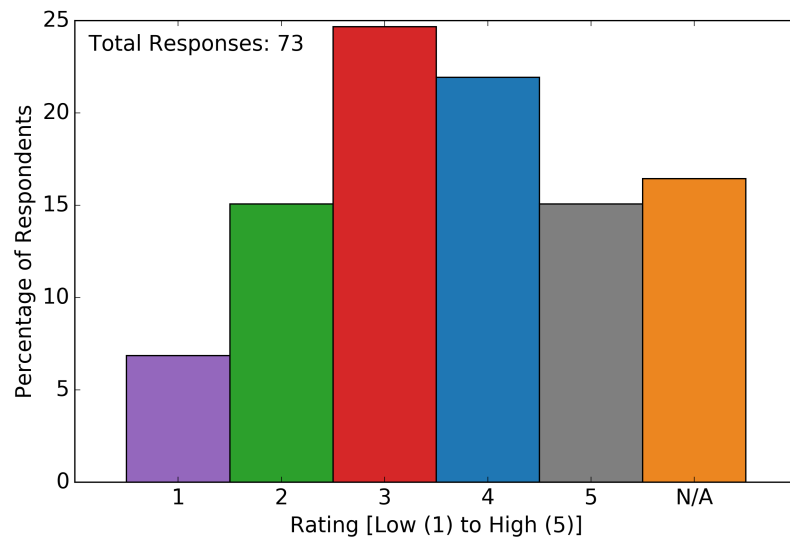
Suggestions for Additional Information to Include on Department Website:

- Career placement statistics
- A list of PhD student milestones and expected completion times
- Update or remove the outdated videos
- Update or remove the list of graduates in academia

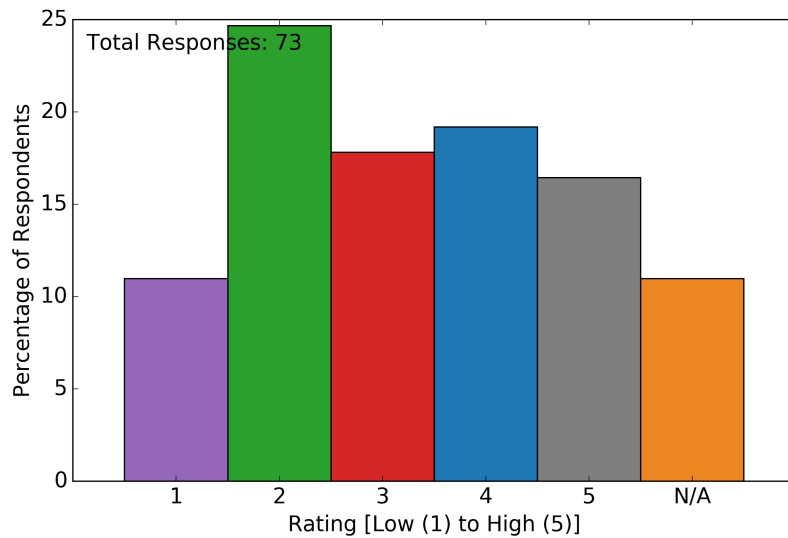
How would you rate your overall satisfaction with facilities at Columbia?



How would you rate your overall satisfaction with the mechanical engineering TA room?



How would you rate your overall satisfaction with the Mudd 1st floor lounge?



Summary of Facilities Issues Reported in Mudd:

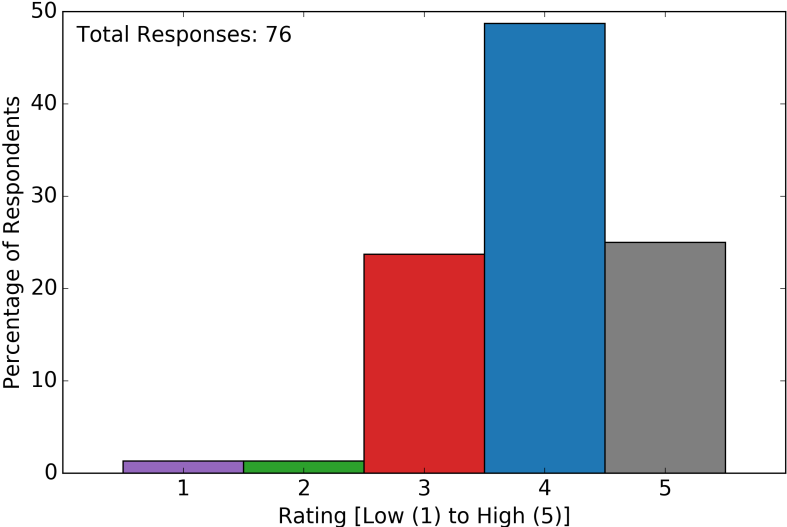
- Temperature control in most rooms is poor.
- Drinking fountains often have low water pressure.
- Bathrooms are often dirty.
- Tables in Carleton and in the hallways are often wobbly.

Summary of Ideas Expressed in Free Response:

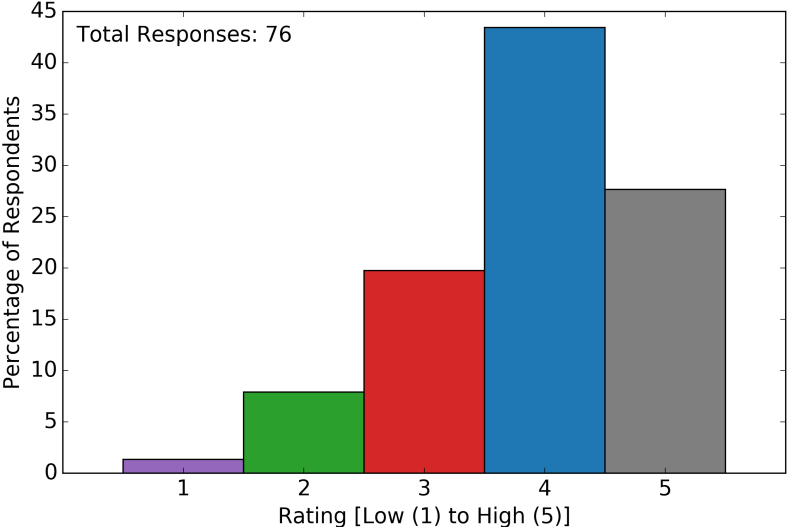
- Desks are often uncomfortable, especially for taller students.
- Elevators in Mudd and NWC are extremely slow and often broken.
- The Keurig machine started making a high pitched noise in the spring semester every time it runs.
- The Mudd first floor lounge is always overrun with CS students because their TA room is too small.
- Teaching assistant room:
 - The room is not cleaned often enough and the garbage can is not regularly emptied.
 - The room echoes and makes it hard to teach.
 - Power is not conveniently accessible on table tops.
 - There is no way to project a computer screen easily.

MEGA Events

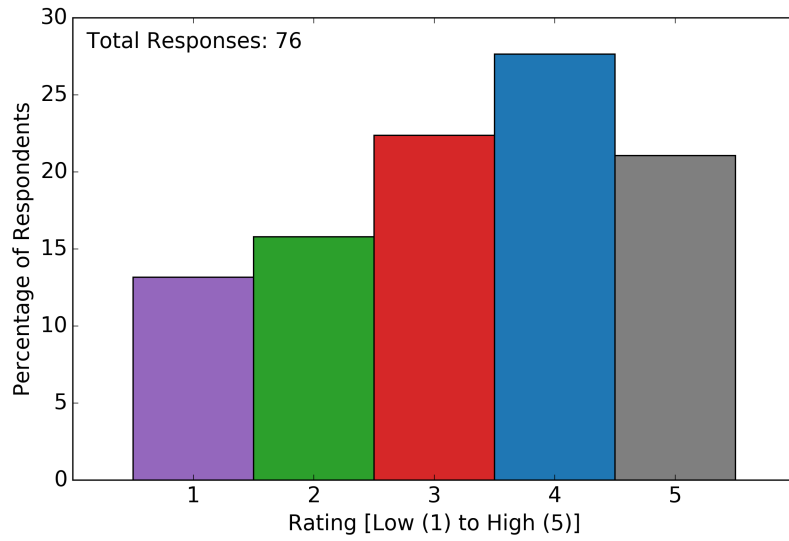
How would you rate your overall satisfaction with MEGA events?



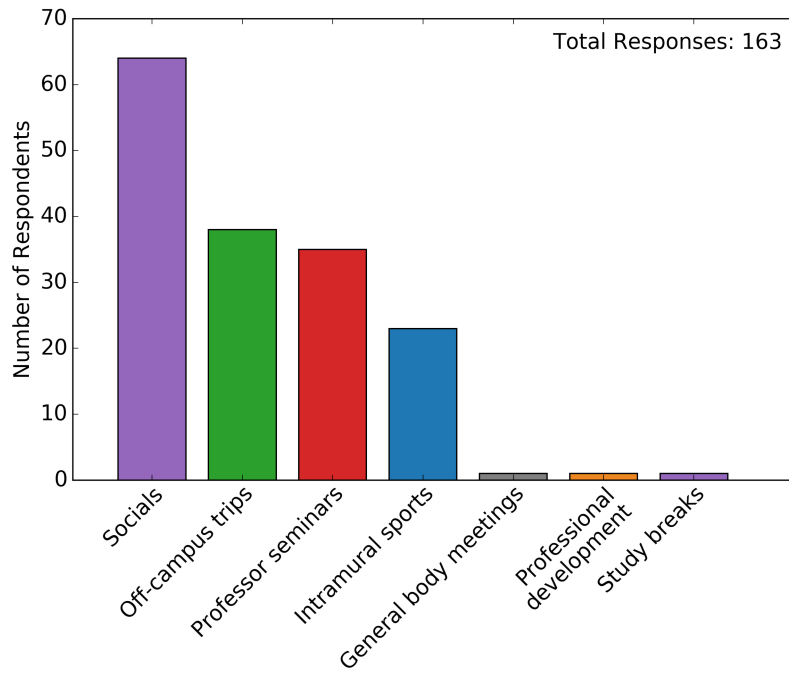
How would you rate your satisfaction with MEGA social events (monthly socials, field trips, etc.)?



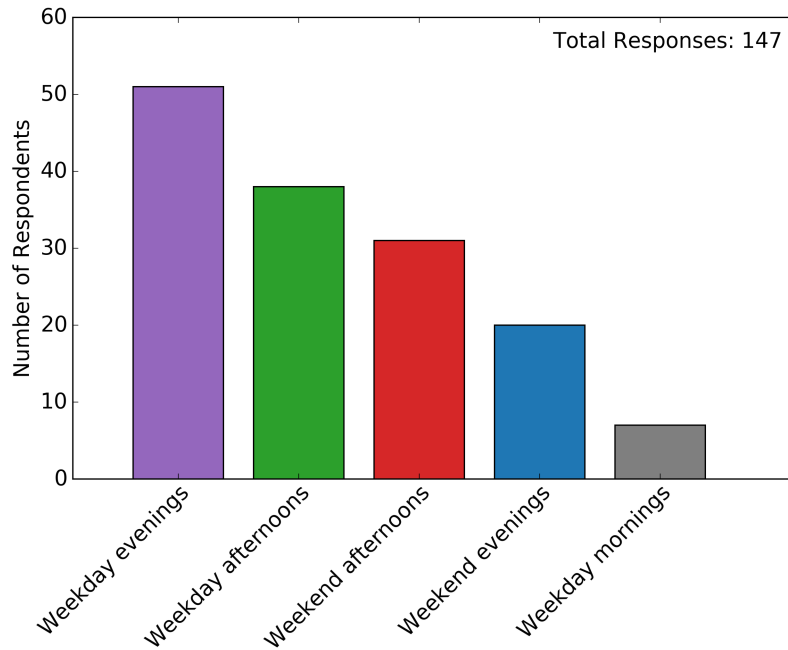
How often do you attend MEGA events?



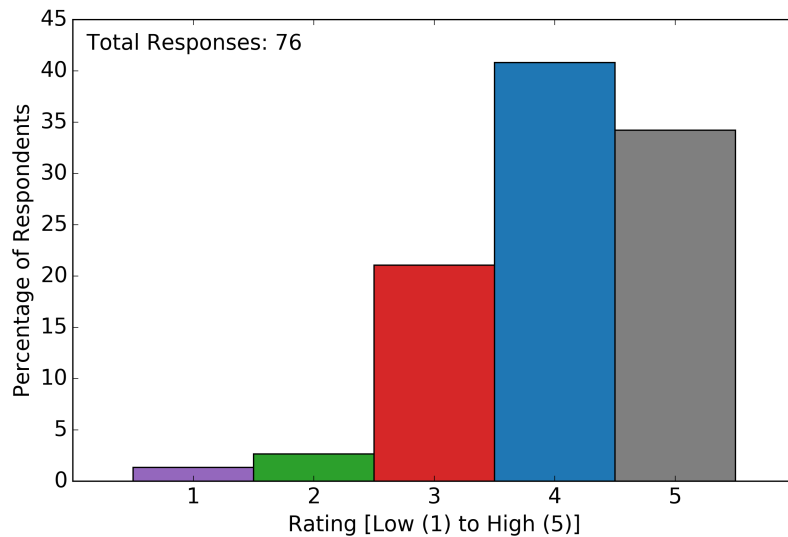
Which types of MEGA events do you prefer?



When do you prefer for MEGA to hold events?



How would you rate your satisfaction with the email you receive from the MEGA mailing list?

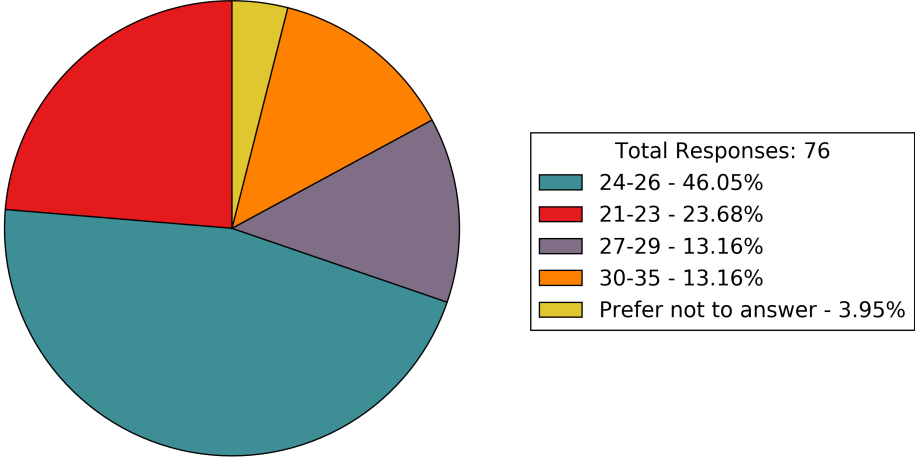


Summary of Ideas Expressed in Free Response:

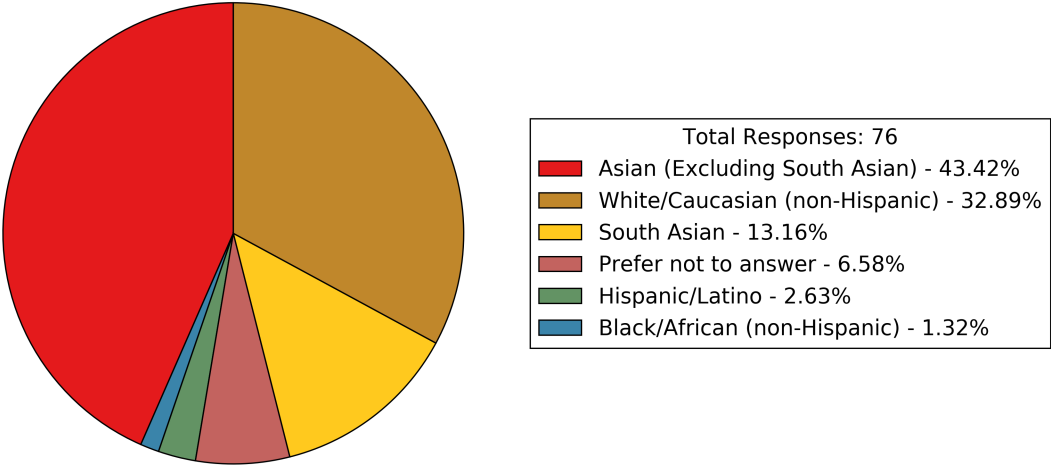
- MEGA should host more events throughout the semester so students can interact with the executive board.
- MEGA should host more themed socials.
- MEGA should host Friday evening or weekend events so alumni can attend.
- MEGA should sponsor skiing and hiking trips.
- MEGA should take students to technology and engineering events in the city.

Demographics

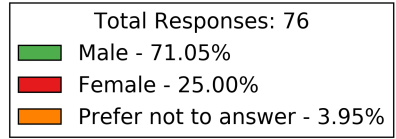
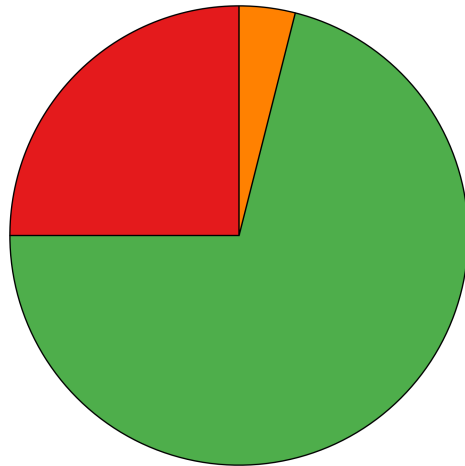
What is your age?



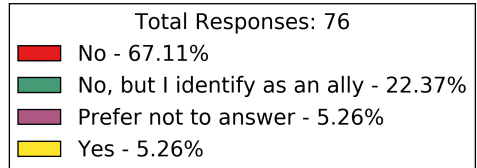
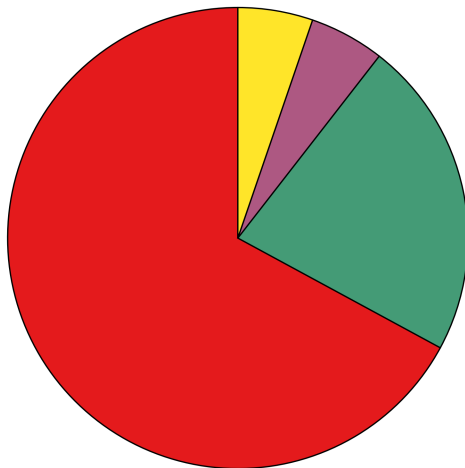
Would you describe yourself as:



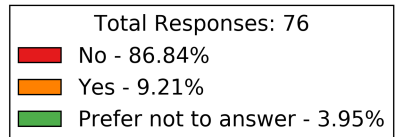
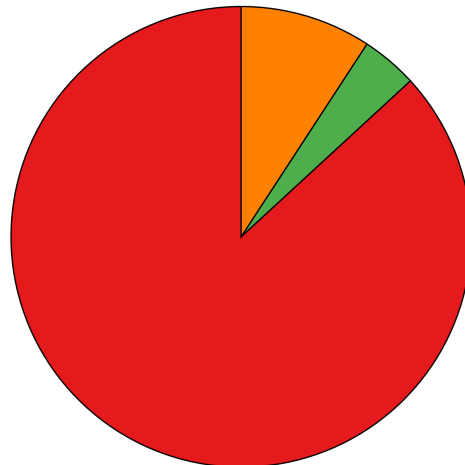
What is your current gender identity?



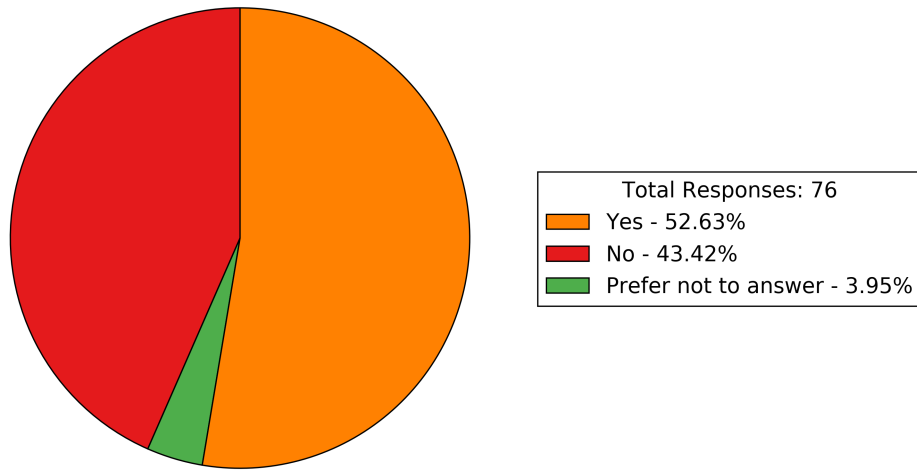
Do you consider yourself a member of the Lesbian, Gay, Bisexual, and/or Transgender (LGBT) community?



Since joining Columbia, have you experienced food insecurity (lack of consistent access to enough food for an active, healthy life)?



Are you an international student?



Free Response

Comments Not Covered By Previous Sections:

- Purchasing is needlessly frustrating. It can take weeks for a simple order to make its way through the Quartzzy ordering system. And that can involve bothering the front desk staff multiple times to get it done.
- There are no announcements when staff join or leave the department, or when a staff member's duties change. It makes it very hard to know who to talk to when issues arise.

Suggestions to Improve Survey:

- Specify on academic questions whether they only apply to ME courses.