Summary of AMS Academic Experience Survey 2016: Engineering

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Contents

Introduction

This report is a summary of the AMS Academic Experience Survey (AES), tailored to the undergraduate programs in the Faculty of Applied Science. Certain responses that may be of interest to the Faculty have been extracted, and responses broken out into engineering-specific demographics. Recommendations have been drawn based upon the data collected from this survey.

The UBC Engineering Undergraduate Society (EUS) would like to express its gratitude to the AMS for their continued support of the EUS with regards to this survey. Their ongoing support in including constituency-specific questions, in answering any and all follow-up questions and in the provision of the report and raw data, is very helpful to EUS advocacy efforts. In addition, the EUS would like to extend its appreciation to all UBC Engineering undergraduate students who completed the survey.

Methodology

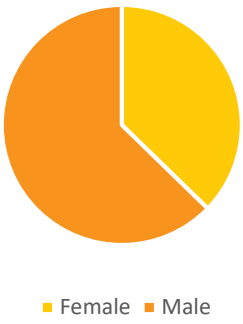
Every spring, the UBC Alma Mater Society's (AMS) VP Academic and University Affairs conducts the AMS Academic Experience Survey (through an independent contractor, Insights West), designed to gather student feedback on the many facets of their university experience. The complete survey report, now in its fifth year, can be accessed through the AMS. Should you have any inquiries about the survey, please contact AMS VP Academic and University Affairs, Samantha So, at vpacademic@ams.ubc.ca. Questions about engineering-specific components of the survey may also be directed to EUS VP Academic Affairs Jakob Gattinger at vpacademic@ubcengineers.ca.

Participants were incentivized to participate through a variety of gift card offerings. The previous edition of the survey (for the 2014 Winter session) is cited for comparison of questions shown in both years, when possible.

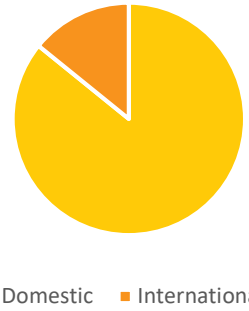
Demographics of Sample

The AMS Academic Experience Survey received responses from 1564 students. It is important to note there was a significant decrease from 310 engineering participants in the 2014 Winter survey to a weighted total of 247. Engineering students represented 16% of total survey respondents, 33% more than they do according to the University's enrollment data. The following charts provide further detail on the demographics of the survey's engineering respondents:

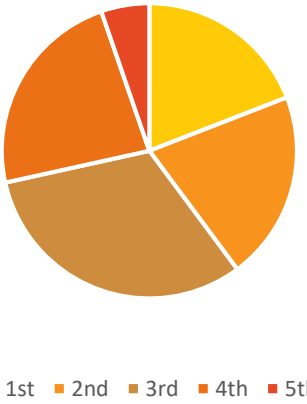
Gender



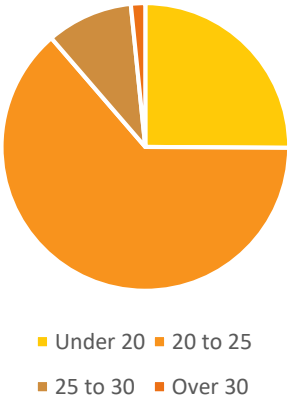
Domestic vs. International



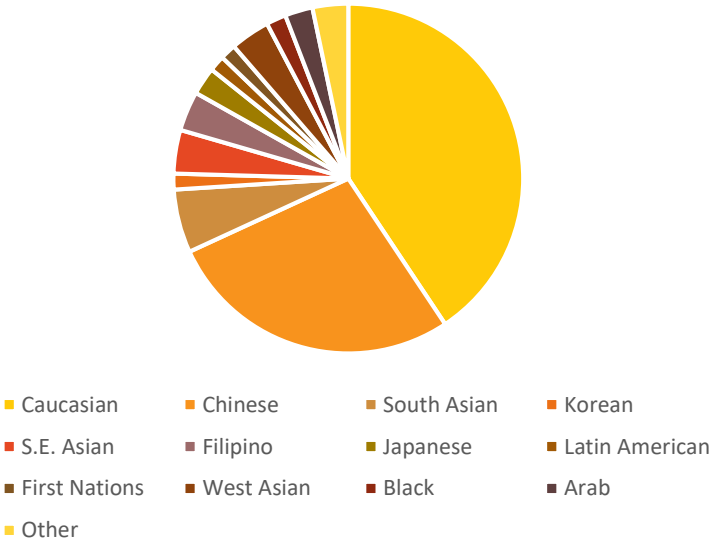
Year Level



Age



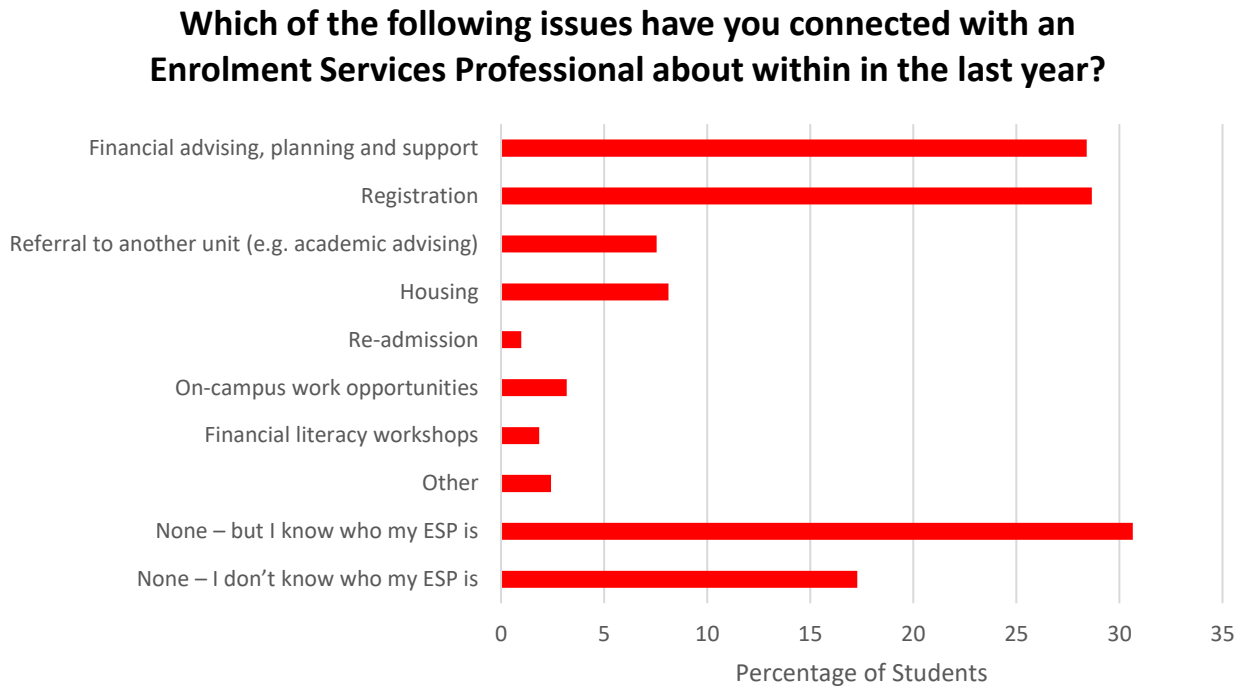
Ethnicity



Academic Support

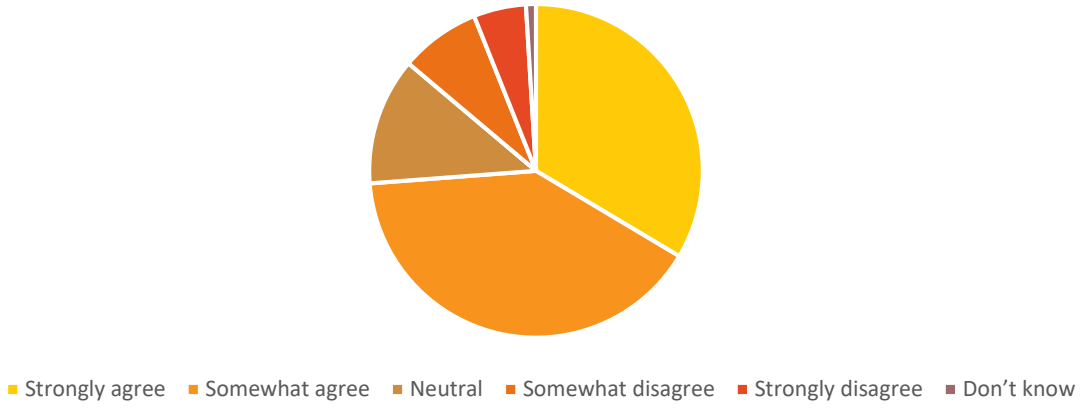
Advising

While faculty and department-level advising were not surveyed in this year's version of the AES, students were queried about the effectiveness of UBC's Enrollment Services Professionals (ESPs). Students were also asked about which topics they had contacted their ESP regarding, if they in fact knew who their ESP was.



Just over 15% of students reported that they were unsure as to who their ESP was, and the most common reasons for ESP contact were finances as well as registration questions. More than two-thirds of students reported satisfaction (either agree or strongly agree) in their interactions with their ESP.

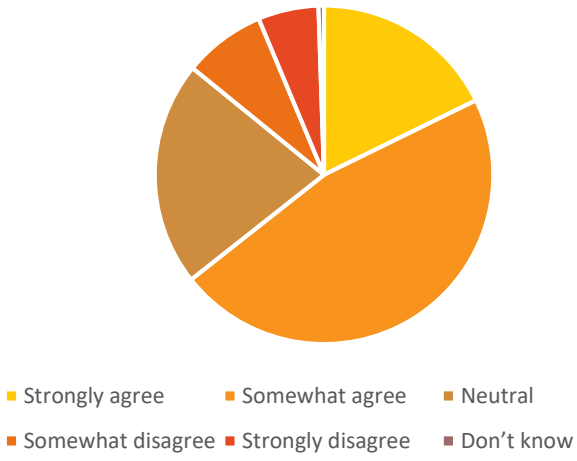
To what extent do you agree with the statement "I was satisfied with the level of service that was provided to me by my Enrolment Services Professional (ESP)"?



Mental Health and Wellbeing

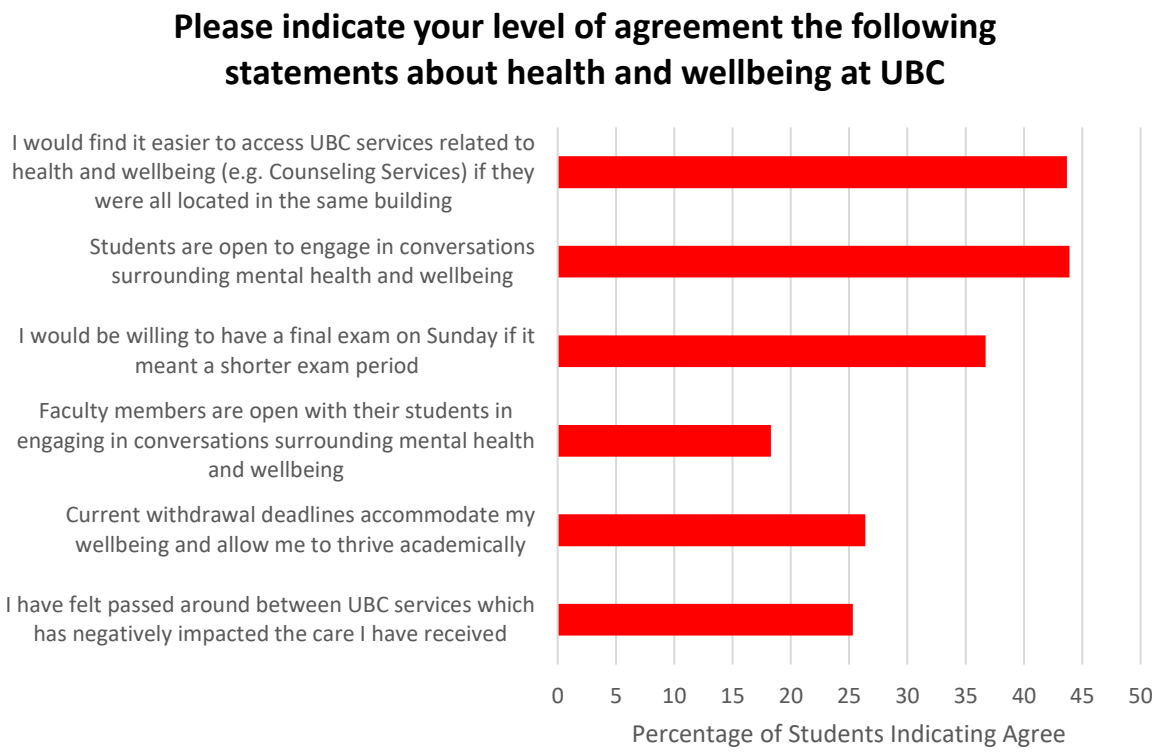
With an increased focus on both mental health as well as wellbeing at UBC, much of this year's survey focused on this topic. The results, in a broad sense, show that approximately two-thirds of UBC's engineering population has found a sense of belonging on campus. Just 14% of students either disagreed or strongly disagreed that they had found a sense of belonging at UBC.

Please indicate to what extent you agree with the following statement: I feel a sense of belonging on campus



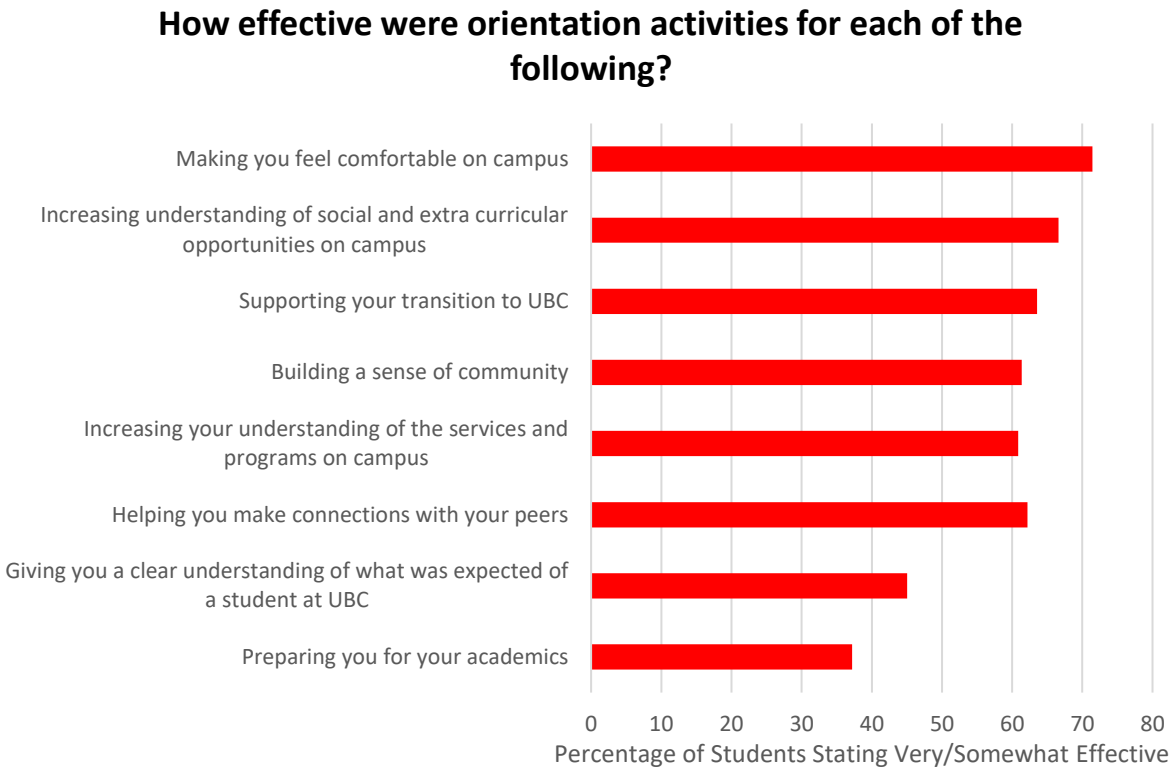
The results of the above query show that engineering students are slightly more likely to feel that they belong on campus than the student body as a whole. Students were also asked their opinions on a series of statements about attitudes toward mental health and wellbeing at

UBC. The results indicate that, by an approximately three-to-one margin, engineering students would more frequently use health and wellbeing services if they were centrally located. Additionally, by a two-to-one margin, students felt that other students were open to engaging in conversations on the topic of health and wellbeing.



Orientations

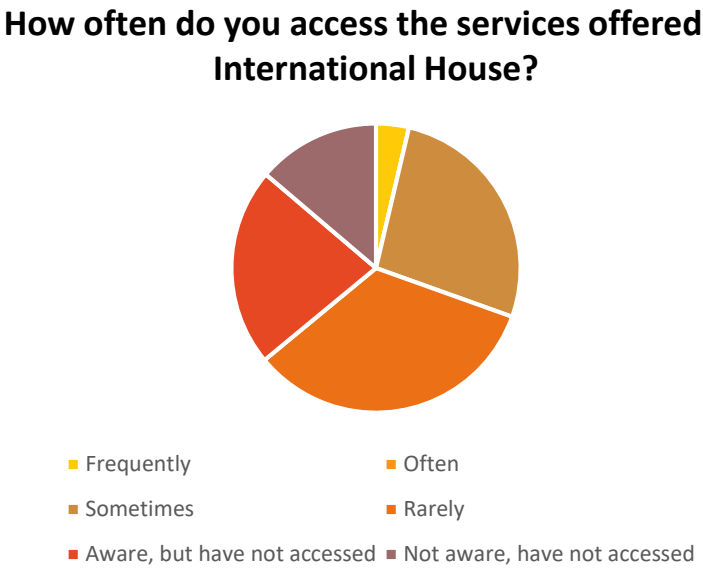
UBC's orientation programming includes events like Destination UBC, Jump Start (geared toward the international student body) and Imagine UBC. On the whole, more than 70% of students reported that orientation programming was effective or very effective at making them feel comfortable on campus.



One standout area identified by this question is in regard to the effectiveness of orientations with respect to academics – just under 40% of students agreed that orientations had helped them be ready in this way. Many of the higher scoring categories are more geared toward social aspects of student life.

Resources for International Students

Nearly two-thirds of international engineering students reported using the services available to them at International House (including visa support and temporary health insurance) at some point during their time at UBC. Approximately five-in-six were at least aware of International House and its services, even if they had not personally used them.

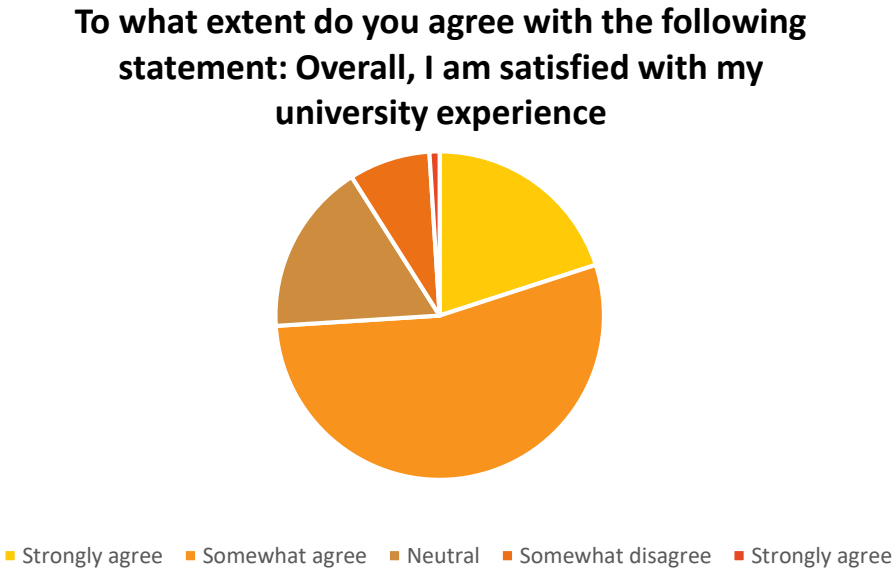


In a follow-up question, international students indicated, by a two-to-one margin, that a centralized location for international house would help them access the services dedicated toward them more often.

Academic Experience

Overall Satisfaction

Generally speaking, engineering students are satisfied with their university experience. Nearly three-quarters of engineering AES respondents rated their experience at UBC as satisfactory, by agreeing or strongly agreeing with the statement below.

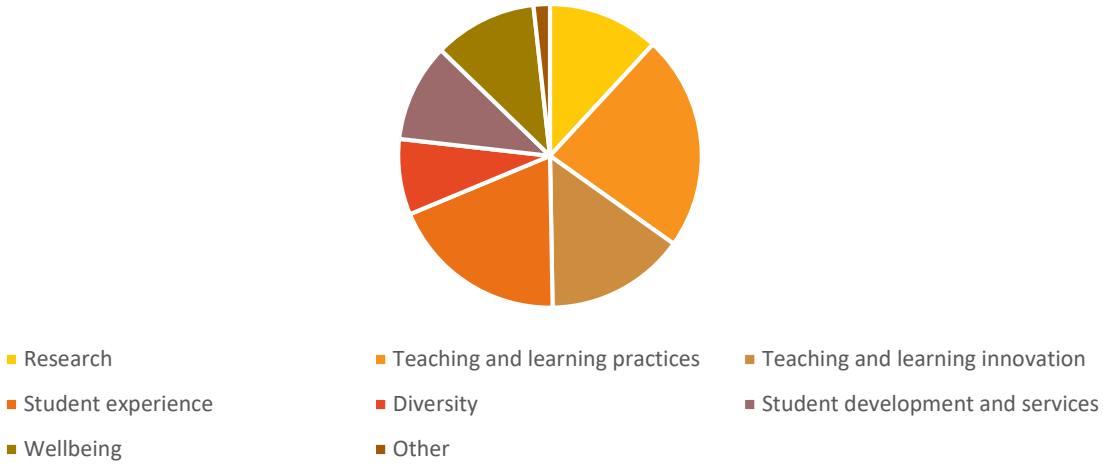


The results expressed to this question are nearly identical to those seen last year, with just a very slight increase to overall satisfaction.

Student Perception of Institution Quality

Students were asked to allocate what qualities of a university defined its excellence, and engineering students allocated nearly 50%, on average, toward student life (including student experience, wellness, diversity and services). That was followed, at approximately 40% on average, by teaching and learning (both current practices and innovation).

Thinking about universities in general, how much of a role to each of the following factors contribute to your own perceptions of a university's excellence?

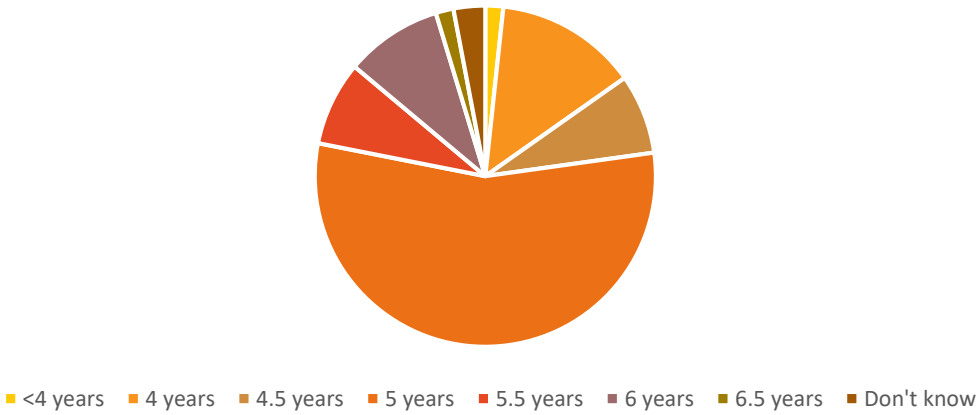


Engineering students allocated just over 10% of a university's excellence toward research – slightly less than UBC students did as a whole. Approximately 15% of engineering respondents said research accounted for no part (0%) of a university's standing with respect to excellence.

Length of Degree

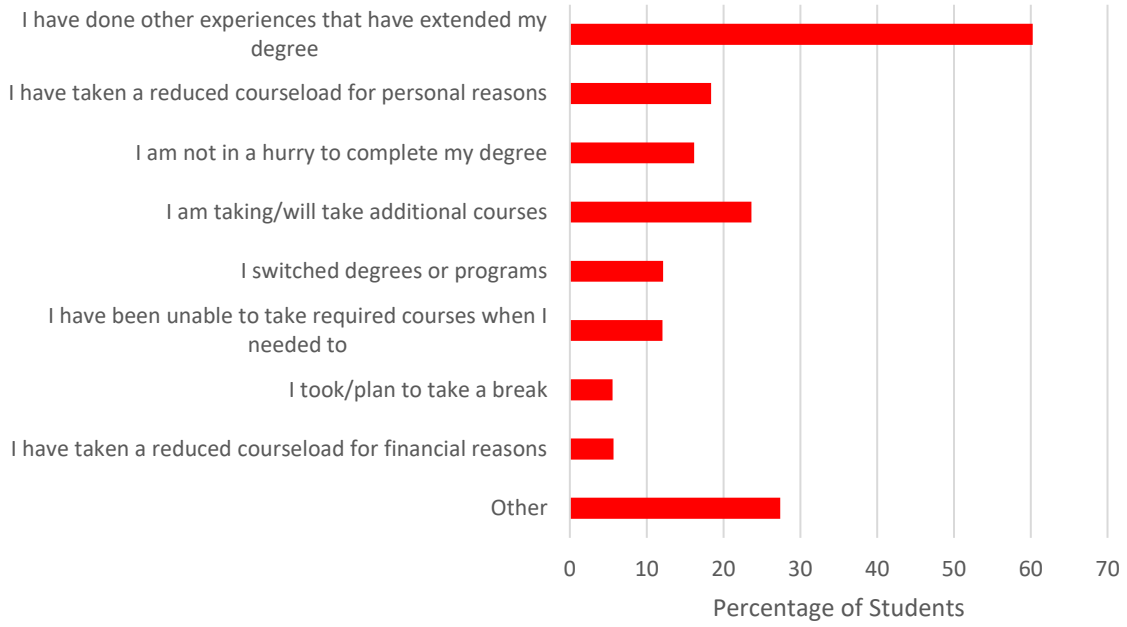
In total, 82% of engineering students indicated that their degree would take longer than four years to complete. This ranks more than 20% higher than the campus wide average, and is 15% higher than any other faculty included in the AES.

How long will it take you to complete your degree program from start to finish?



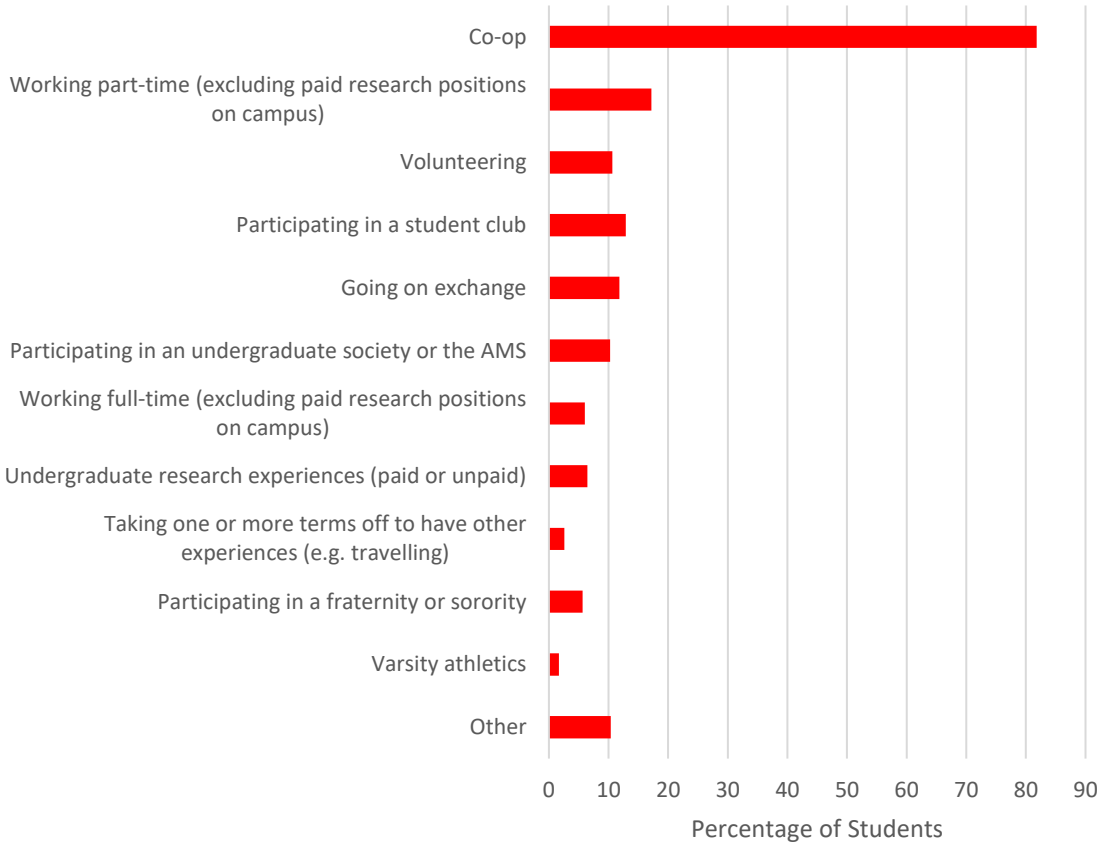
The average length of a degree for engineering respondents was approximately 5 years, with approximately one-in-five reporting their degree would last longer than five years. Just 16% stated they would complete their undergraduate studies in four years or less. Students provided a wide range of reasons as to why their degree might extend beyond the scheduled four years, with the most common reason being participation in co-operative education (co-op).

Why will you not complete your degree program within a 4 year period?



In total, 61% of engineering students who indicated they would not complete the program in four years cited engaging in other experiences beyond the classroom as a reason. Approximately one-fifth of students reported taking a reduced courseload; more than one-in-ten cited unavailability of required courses as a reason they were forced to extend past the standard degree length.

What are the other experiences that have extended your degree?

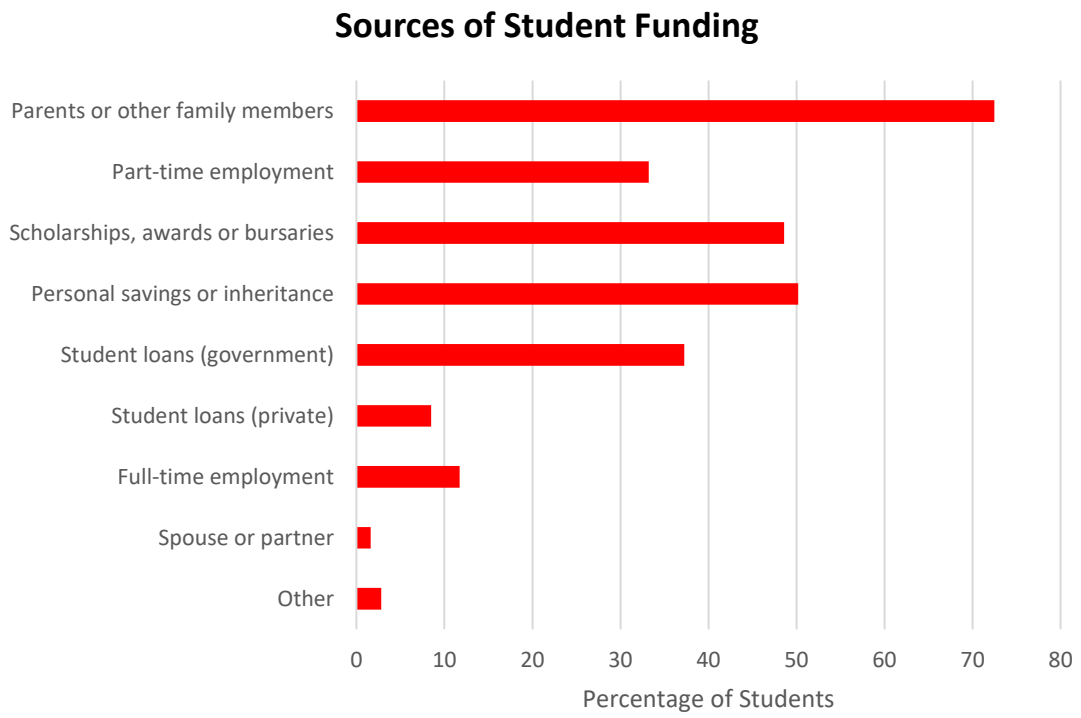


Beyond co-op, some of the most frequently engaged-in experiences beyond the classroom (that forced students to extend their degree) included part-time work, going on exchange or participating in a club. Approximately 10% of engineering students referenced EUS or AMS involvement as a reason.

Finances

Sources of Funding

The most common source for students of funding, including for more than 70% of the engineering population of UBC, was parents or other family members. Following parental/familial support, awards/scholarships and personal saving were the most frequently reported sources of funding.

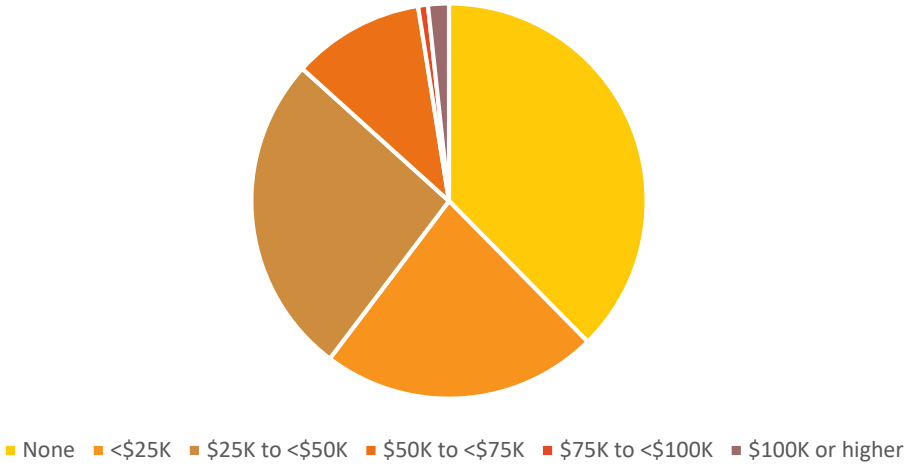


The frequency of government student loans as a source of funding ticked up from 28% in last year's AES for engineering students to nearly 40% in the most recent version of the survey; private loans, scholarships/awards and personal savings all remained at about the same level. There were slight increases to parental/familial financial support, and part-time employment.

Expected Debt

Excluding those who did not know how much debt they'd graduate with, or who did not wish to participate in the question, only about two-fifths of engineering undergraduates expect to graduate without any student debt upon the completion of their studies. The average expected debt for prospective engineering graduates currently sits at approximately $22,000.

What do you expect your personal financial debt to be at graduation?

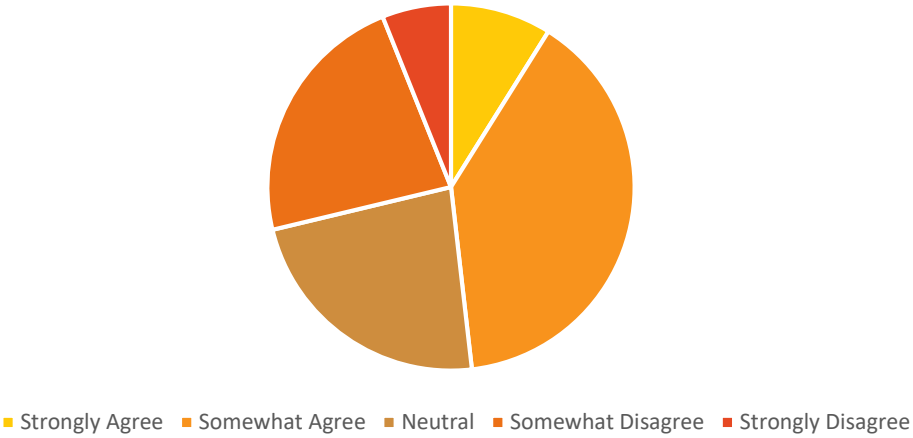


There was a slight increase from the previous year's survey of students expecting to graduate with at least some amount of debt. The number of students reporting debt at the highest levels also increased year-to-year.

Value of Tuition

Engineering students, as a whole, continue to believe that they are receiving good value for their tuition costs; in fact, the number of students agreeing or strongly agreeing with the question increased from last year.

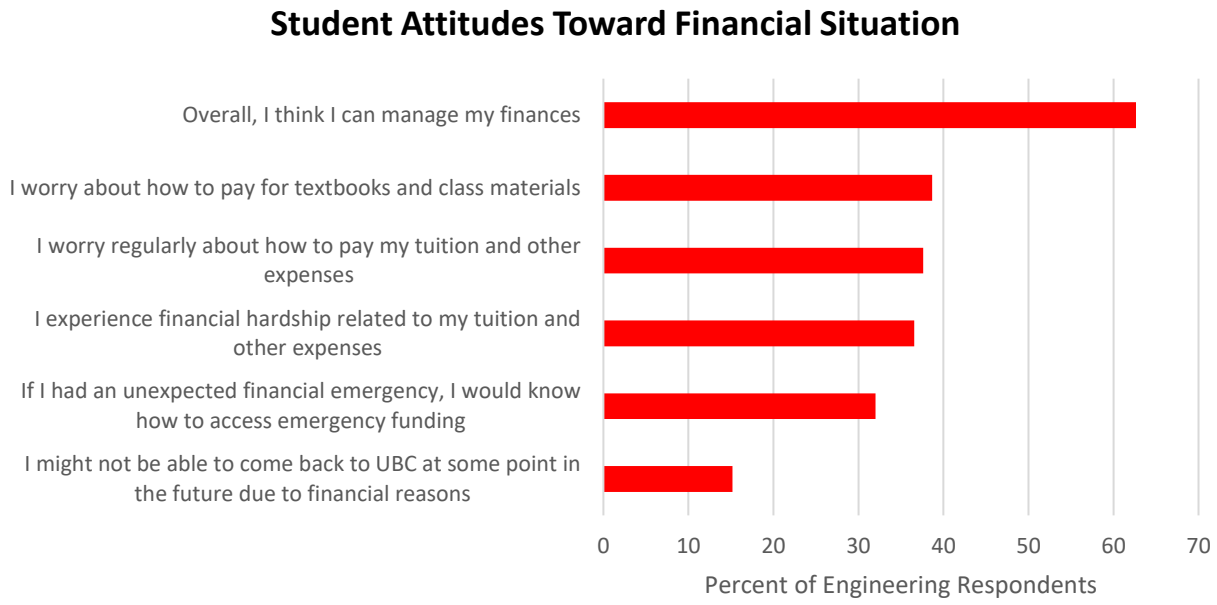
Please rate your level of agreement: Overall, I am receiving good value for my tuition fees



The number of students strongly disagreeing with the statement that they receive good value for tuition cost is also down. Those who did not know were excluded from the data above.

Attitudes Toward Financial Situation

While more than 60% of engineering students feel that they are able to manage their financial situation, nearly 40% worry about paying for textbooks, and a similar amount feel the same way regarding tuition.

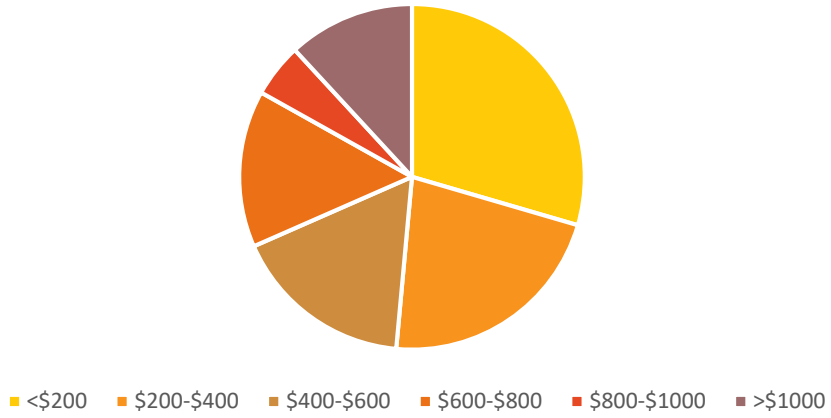


While, as mentioned above, a majority of students responded that they can manage their finances, more than 30% did not know where'd they'd turn in a situation where money became a problem, and approximately 15% responded they may need to suspend or discontinue studies for financial reasons at some point in the future. Students also strongly disagreed that UBC seriously considered student views surrounding cost.

Textbooks

The average engineering student who completed the AES reported spending $469 on textbooks during the 2015-2016 academic year. This is slightly lower than the UBC-wide average for spending on these resources.

How much in total did you spend on textbooks and other course resources (excluding tuition) during the 2015-2016 academic year?



It is important to note that engineering students, by a much wider margin than in other UBC undergraduate populations, obtained educational resources illegally. This likely contributed to a reduction in the average cost of learning materials, but is an action strongly discouraged by the EUS.

How often have you done each of the following?

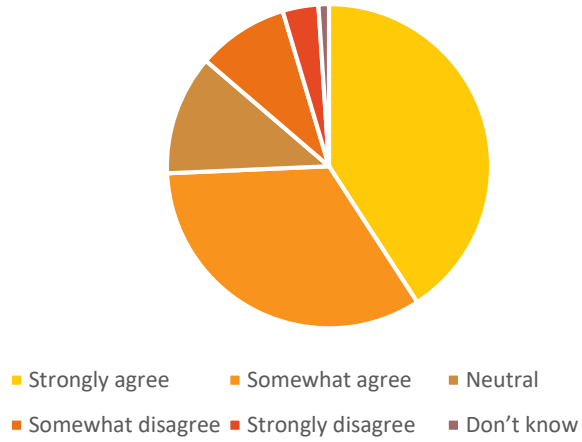
Almost all engineering students (more than 90%) reported purchasing a textbook that they never or seldom went on to use. Engineering students also reported, at a rate 10% higher than the campus-wide average, not getting books due to cost frequently. When engineering students did obtain a textbook, only 32% of them felt the entirety of textbooks assigned by instructors were related to the course; only 40% felt instructors considered cost in assigning the texts.

Campus Environment

Personal Safety

While a majority of students stated they either agreed or strongly agreed with the statement below regarding safety in the evening hours on campus, it is important to note this question had a strong delineation based upon gender, with women feeling less safe by a wide margin than men.

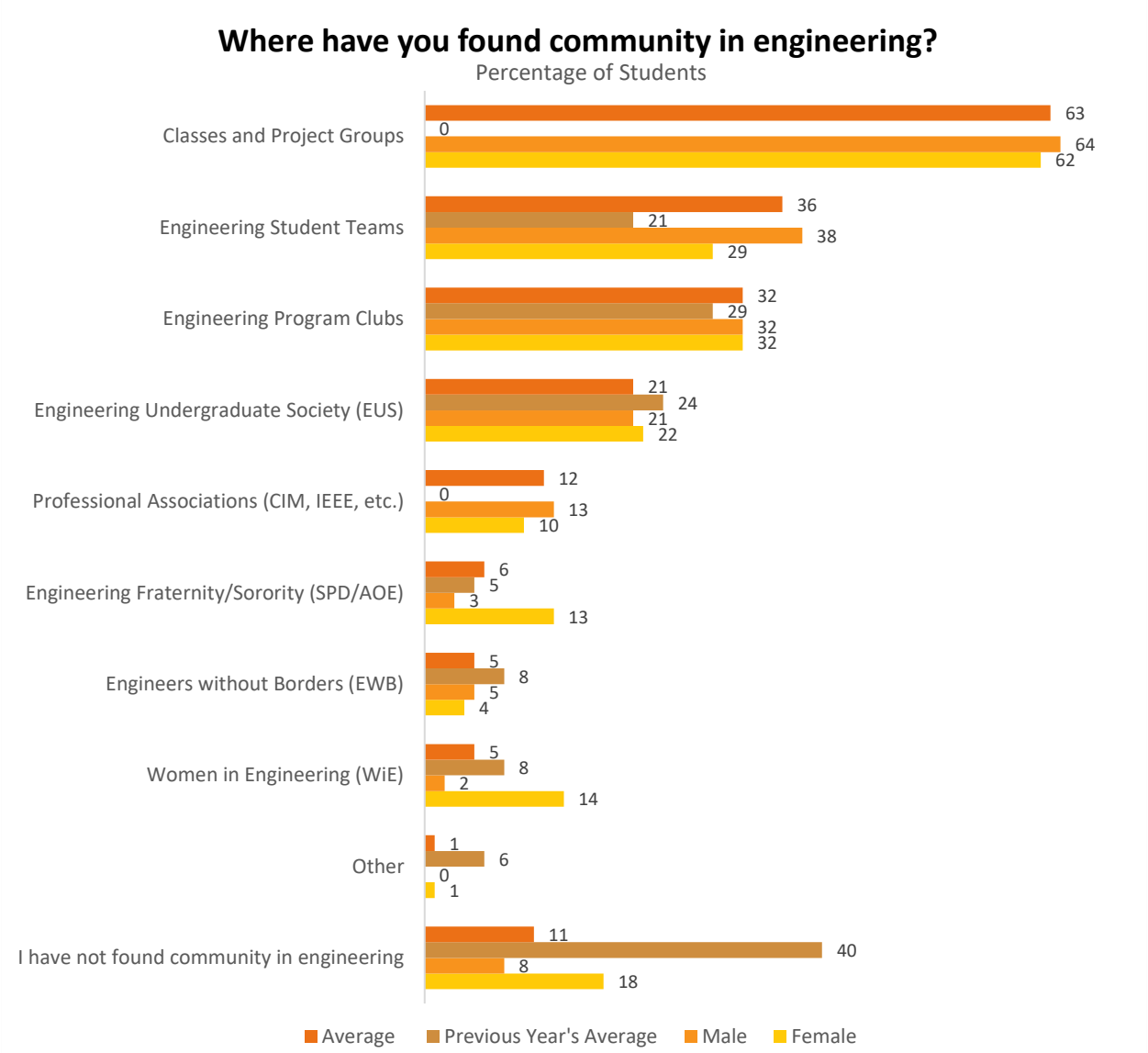
Please indicate your level of agreement: I feel safe on campus at night



In the summary compiled by Insights West and the AMS, there was also a correlation between ethnicity and opinions regarding safety at night, with minorities feeling significantly less safe on average. Unfortunately, such a breakdown is unavailable to see if a similar trend exists within the engineering student body.

Community within Engineering

A critical component of the Engineering Undergraduate Society's mission is to build community for engineering students. With the exception of the 'classes and project groups' parameter, all of the choices are linked back to the EUS.

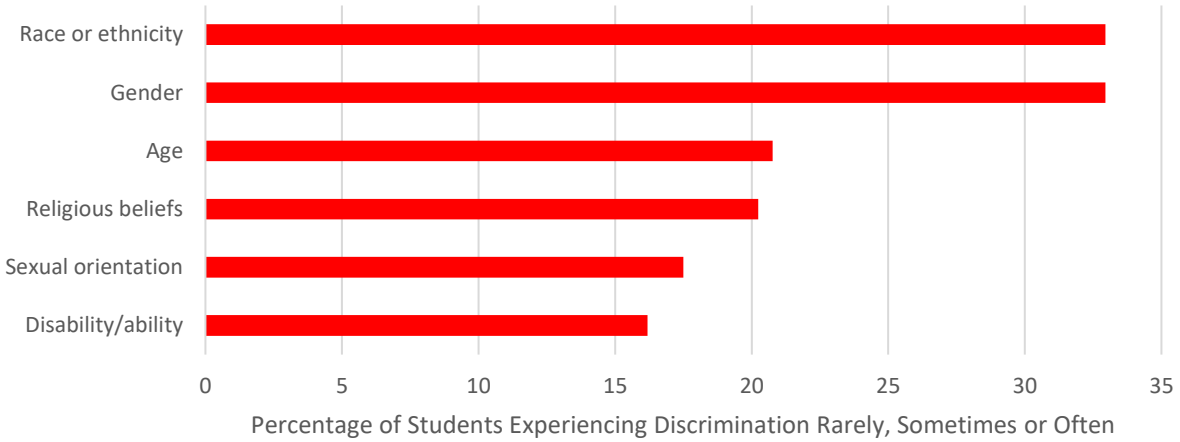


The survey showed a significant decrease in the number of students who were unable to find community in engineering, which corresponded with the addition of the 'classes and project groups' option, which had not been a choice in last year's survey. The option for professional associations had also not been previously included. The Engineering Undergraduate Society has been a source of community for about an equal number of male and female respondents.

Discrimination

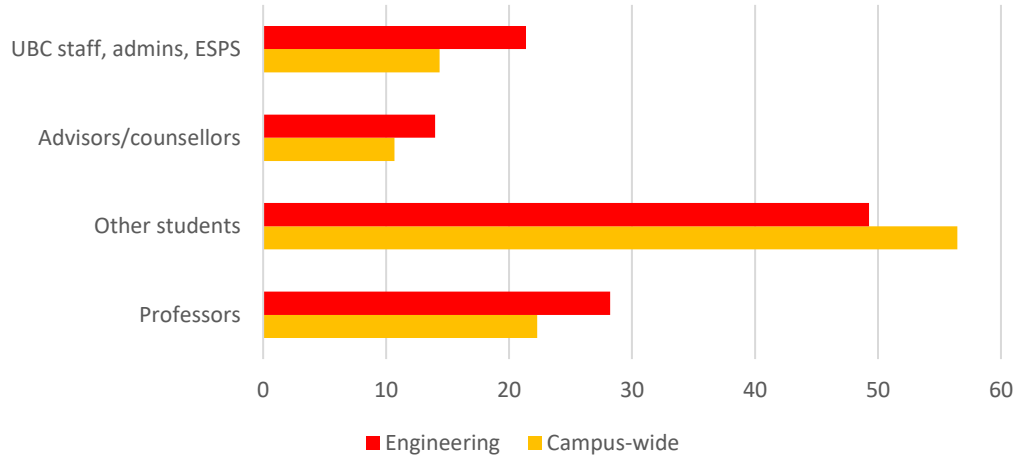
Discrimination is an important parameter by which to measure the climate of campus, and on the whole, engineering student experienced less discrimination in all five categories below than the UBC student body did as a whole.

How often do you personally experience discrimination on campus for each of the following?



In total, a majority (51%) of engineering students reported experiencing some type of discrimination. The most common forms of discrimination reported were those along lines of ethnicity and gender.

From whom have you experienced discrimination?

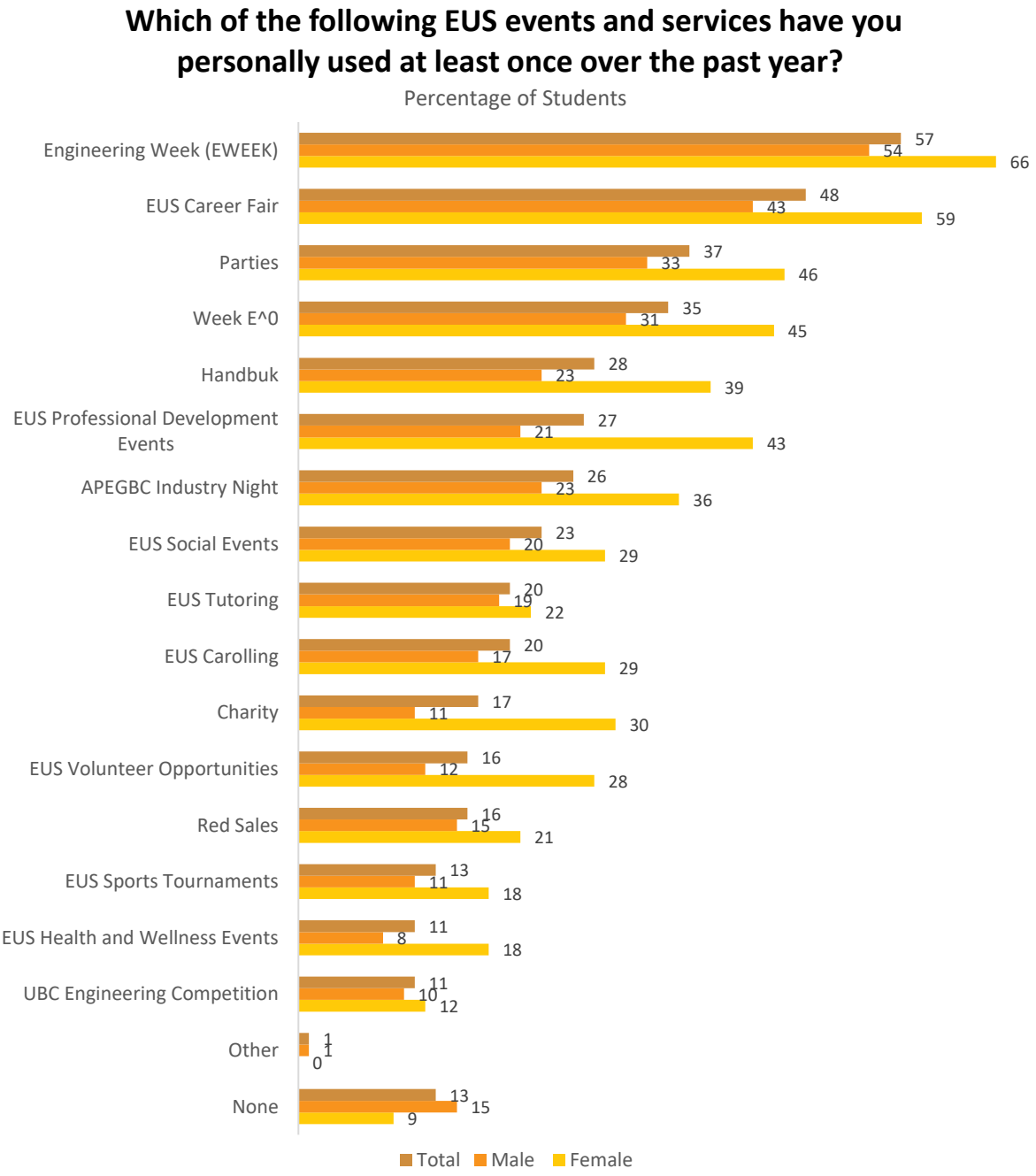


By far, the most common source of discrimination felt by engineering students was from other students, as was the case across campus. Discrimination reported in the AES was also significantly higher from professors in engineering than it was from faculty campus-wide.

The Engineering Undergraduate Society

Events and Services

Overall, 87% of engineering students indicated that they had attended at least one event or used an EUS service within the past year. Engineering Week (also known as EWEEK) was the most commonly engaged-with service/event. There is no historical data for this question.

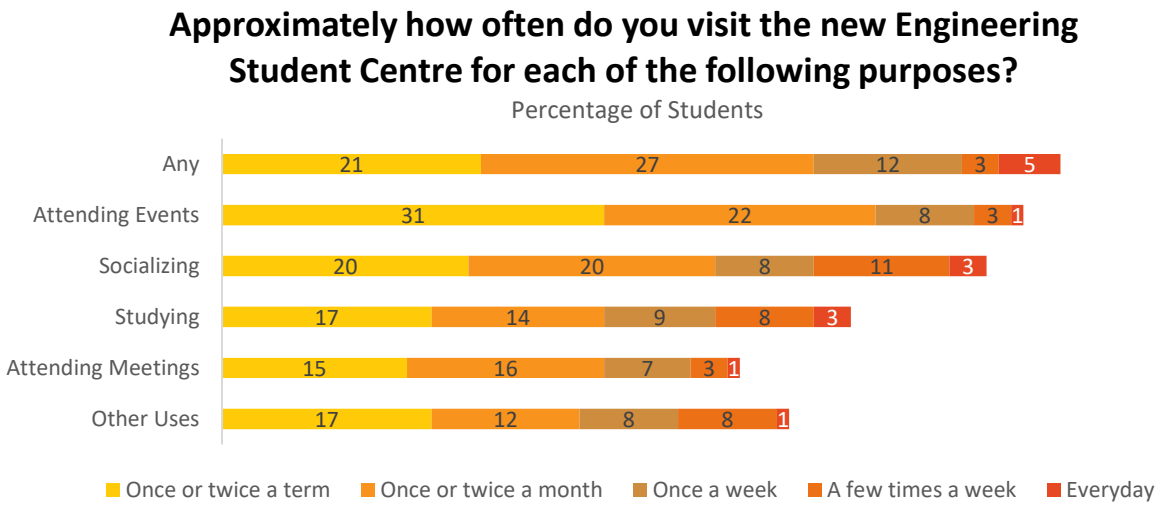


The EUS is encouraged to see that women strongly engage with the EUS in a wide range of different types of events. Furthermore, it is clear that students value both events of a social nature as well as ones with more of a professional/academic purpose.

The Engineering Student Centre

Frequency and Purpose of Student Visits

Given that the Engineering Student Centre opened during the past academic year, the EUS surveyed students on how often they were using the new facility, and for what purposes. Having been open for just a year, there is no historical data for this question.



Approximately 70% of engineering students reported using the Engineering Student Centre a minimum of once or twice a term. The most common purpose for any interaction with the space was for attending events, but on a weekly basis, socializing and studying were more commonly used.

Recommendations

Based upon data received in this survey, the EUS has identified five key focus areas to be at the centre of our advocacy efforts. The EUS appreciates many of the issues identified by the survey are complex, and likely to require a significant amount of time to be improved upon.

1. **Opening of dialogue on the standard length of an engineering degree**

With 82% of engineering students reporting that their degree will take longer than four years to complete, the EUS desires to engage with the Faculty of Applied Science to appropriately consult students on the length of their undergraduate engineering programs. The average length of a degree for engineering respondents of this survey is approximately 5 years. The EUS is strongly supportive of students engaging in experiences beyond the classroom, like co-op, as well as taking a lighter courseload if they feel that to be beneficial personally. Furthermore, a significant amount of students reported that the inability to register for required courses inhibited them from graduating in four years. For these reasons, and more, the EUS would like to reevaluate the standard length of an applied science degree through a comprehensive consultation of students.

2. **Adoption of open educational resources in engineering courses**

With an overwhelming majority (over 90%) of students stating that they have experienced courses where the textbook is either seldom or never used, the EUS strongly believes students would have a greatly enhanced academic experience with all educational resources provided for. This would ensure that these materials are focused on content relevant to the course, and save students money; this is particularly critical considering 40% of students reported they struggle with and worry about textbook payments. Furthermore, this would help to address the widespread problem posed by illegal downloading of textbooks and other resources. Similar findings were reached through the EUS Report on the UBC Engineering First Year Program, 2015-16.

3. **Continued promotion of an inclusive environment within the engineering community**

While both the EUS and Faculty of Applied Science have taken significant strides toward building a more inclusive community within engineering at UBC, it is clear from the AES results that there is still work to be done. A majority of students (51%) reported experiencing some form of discrimination, and the most common source experienced by students was their peers. As a result, the EUS is committed toward ensuring all individuals involved in its day-to-day functioning are dedicated toward welcoming everyone, regardless of gender, ethnicity, age, visible or invisible disability, or the like.

4. **Advocate for student services to be housed in centralized and easily accessible locations**

Throughout a number of different questions contained within the survey, there was an expression from students that locating services in easy-to-reach locations on campus would

increase their use of them. With 50% of international engineering students stating that they would more frequently use International House if it were centrally located (just 26% said it wouldn't make a difference), and 44% of students saying the same of health and wellness services (13% said it wouldn't impact their usage), it is clear location has a distinct impact on service usage. The EUS will endeavor to advocate for any such relocations that align with an increased potential for student use of services.

5. **Adjustment of university and faculty priorities to better align with student views**

With engineering students allocating just about 12% of a university's excellence to research activities, and strong portions going to student life and teaching & learning, the EUS will endeavor to shift focus of the engineering education to the two latter areas whenever possible. While a large majority of students are satisfied with their experience at UBC, it is in the best interest of students, faculty, staff and the university community as a whole to focus on the aforementioned areas whenever possible.

Concluding Remarks

The Academic Experience Survey continues to provide the Engineering Undergraduate Society with a valuable tool to measure student experience across a wide range of areas. Given the critical nature of soliciting feedback from students, the Engineering Undergraduate Society would like to commend the Alma Mater Society once again for facilitating this process.

While the survey does identify a number of areas for improvement, the Engineering Undergraduate Society looks forward to working with the Faculty of Applied Science and other groups from across the UBC community to continue to build an improved student experience. The EUS thanks the Faculty of Applied Science and other partners for their ongoing willingness to engage and collaborate on addressing topics to interest of students as they arise.

References

- The University of British Columbia (2015). Enrollment Statistics 2015/16 [Report]. Retrieved from: http://www.calendar.ubc.ca/Vancouver/
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